0.40mm (.016") Pitch
- Product Matrix A-2
- Stacking Connectors ..... A-3 to A-12

0.50mm (.020") Pitch
- Product Matrix A-13
- PCB Connectors A-14
- Stacking Connectors ..... A-15 to A-19

0.635mm (.025") Pitch
- Product Matrix A-20
- Stacking Connectors ..... A-21 to A-23

0.80mm (.031") Pitch
- Product Matrix A-20
- Stacking Connectors ..... A-24 to A-26

1.00mm (.039") Pitch
- Product Matrix A-27
- Stacking Connectors ..... A-28 to A-29
- Mezzanine ..... A-30 to A-32
- Wire-to-Board ..... A-33 to A-35

1.20mm (.047") Pitch
- Product Matrix A-36
- Wire-to-Board ..... A-37 to A-38
- Mezzanine ..... A-39 to A-40

1.25mm (.049") Pitch
- Product Matrix A-41, A-49
- Wire-to-Board
  - CLIK-Mate™ ..... A-42 to A-43
  - PanelMate™ ..... A-44 to A-45
  - Mini Mi II™ ..... A-45 to A-47
- Wire-to-Wire – Mini Mi II™ A-48
- Wire-to-Board and Wire-to-Wire – PicoBlade™ ..... A-50 to A-52
- Board-In Connectors ..... A-53 to A-54
- Board-to-Board ZIGZAG Connectors ..... A-53 to A-54

1.27mm (.050") Pitch
- Product Matrix A-49
- Board-to-Board – SEARAY* A-55

1.50mm (.059") Pitch
- Product Matrix A-56
- Wire-to-Board – CLIK-Mate™ ..... A-57 to A-58
- High Speed Docking – Plateau HS Dock™ ..... A-59 to A-60
- High Speed Docking – Plateau HD Dock™ PG A-61
- Wire-to-Board – Pico-SPOX™ ..... A-62 to A-63

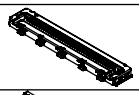
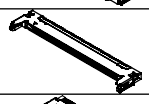
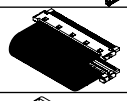
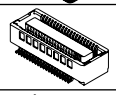
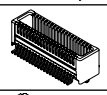
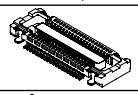
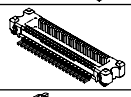
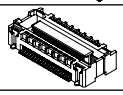
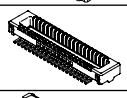
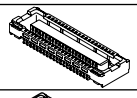
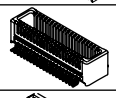
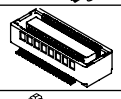
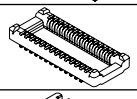
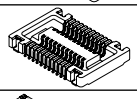
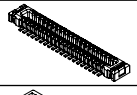
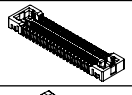
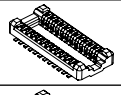
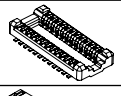
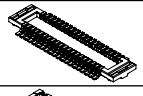
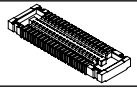
1.60mm (.063") Pitch
- Product Matrix A-56
- Detachable Board-to-Board Connector A-64

*SEARAY is a trademark of Samtec, Inc.

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

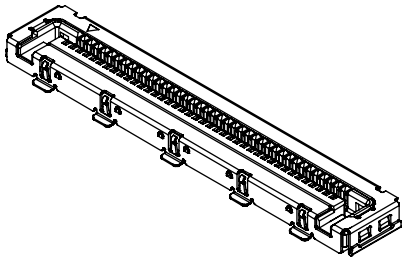
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0.40mm (.016") Pitch

Pitch	Series		Tradename	Description	Stacking Height
0.40mm (.016")	501083			PCB Receptacle, Vertical	
	501044			PCB Receptacle, Right Angle	
	501800			Cable Plug Assembly	
	54477		SlimStack™	Receptacle	4.00mm (.157")
	55339			Plug	4.00mm (.157")
	54765			Receptacle	1.50mm (.059")
	55604			Plug	1.50mm (.059")
	500913			Receptacle	1.80mm (.071")
	55909			Plug	1.50mm (.059")
	51338			Receptacle	1.50mm (.059")
	55526			Plug	3.50mm (.138")
	54684			Receptacle	3.50mm (.138")
	500027			Plug	0.95mm (.037")
	500024			Receptacle	0.95mm (.037")
	502430			Plug	1.00mm (.039")
	502426			Receptacle	1.00mm (.039")
	87820			Receptacle	0.95mm (.037")
	87819			Plug	0.95mm (.037")
	501594			Plug	0.90mm (.035")
	501591			Receptacle	0.90mm (.035")

0.40mm (.016") Pitch Wire-to-Board PCB Receptacle

501083
SMT, Vertical



Circuits	Order No.	Lead-free
30	501083-3010	Yes
40	501083-4010	
50	501083-5010	

Features and Benefits
- Provides convenient top-side mating for hard-to-reach areas
- Polarization features help facilitate proper mating
- Grounding tabs provide shielding protection against ESD
- Friction lock provides secure mating retention
- Terminal design offers long wipe length

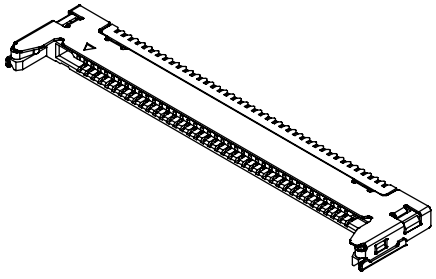
Reference Information
Product Specification: PS-501083-001
Packaging: Embossed tape
Mates With: 501800
Designed In: Millimeters

Electrical
Voltage: 30V max.
Current: 0.2A max.
Contact Resistance: 450 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: Black glass-filled heat resistant plastic, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel

0.40mm (.016") Pitch Wire-to-Board PCB Receptacle

501044
SMT, Right Angle



Circuits	Order No.	Lead-free
30	501044-3010	Yes
40	501044-4010	
50	501044-5010	

Features and Benefits
- Low profile of 1.15mm (0.45")
- Polarization features help facilitate proper mating
- Side grounding tabs provide shielding protection against ESD
- Friction lock provides secure mating retention
- Terminal design offers long wipe length

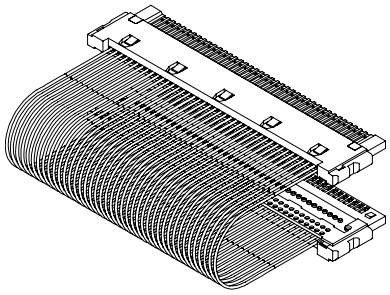
Reference Information
Product Specification: PS-501044-001
Packaging: Embossed tape
Mates With: 501800
Designed In: Millimeters

Electrical
Voltage: 30V max.
Current: 0.2A max.
Contact Resistance: 450 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: Black glass-filled heat resistant plastic, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel

0.40mm (.016") Pitch Wire-to-Board Plug Harness

501800



Order No.	Lead-free
501800-XXXX	Yes

Note: Contact Molex for ordering numbers and further details

Features and Benefits
- "Double-clamp" grounding method provides superior shielding and signal integrity
- IDT termination provides more reliable and efficient assembly versus solder methods
- Ultra-thin coaxial cable provides high speed and space savings

Reference Information
Product Specification: PS-501044-001/501083-001
Packaging: Tray
Mates With: 501044 and 501083
Designed In: Millimeters

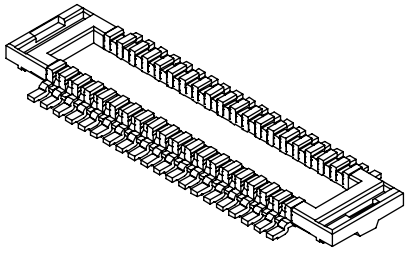
Electrical
Voltage: 30V max.
Current: 0.2A max.
Contact Resistance: 450 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 Megohms min.

www.molex.com

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

501594

SMT, Dual Row Vertical Stacking



Features and Benefits
- Sizes 10 to 70 circuits
- Stacking Height: 0.90mm (.035")
- Fitting nails provide PCB hold-down and solder joint

Reference Information
Product Specification: PS-501591-002
Packaging: Embossed tape
Mates With: 501591
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.3A max.
Contact Resistance: 90 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 Megohms min.

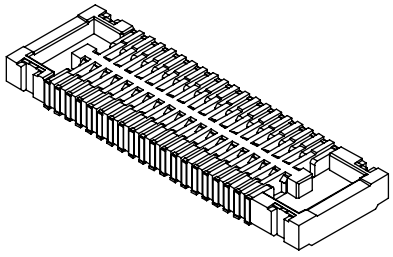
Physical
Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.	Lead-free
10	501594-1011	Yes
12	501594-1211	
20	501594-2011	
22	501594-2211	
24	501594-2411	
26	501594-2611	
30	501594-3011	

Circuits	Order No.	Lead-free
34	501594-3411	Yes
40	501594-4011	
44	501594-4411	
50	501594-5011	
54	501594-5411	
70	501594-7011	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

501591
SMT, Dual Row Vertical Stacking



Features and Benefits
- Sizes 10 to 70 circuits
- Stacking Height: 0.90mm (.035")
- J-Lead SMT solder tails offer space savings
- Solder tabs provide PCB hold-down and solder joint

Reference Information
Product Specification: PS-501591-002
Packaging: Embossed tape
Mates With: 501594
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.3A max.
Contact Resistance: 90 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 Megohms min.

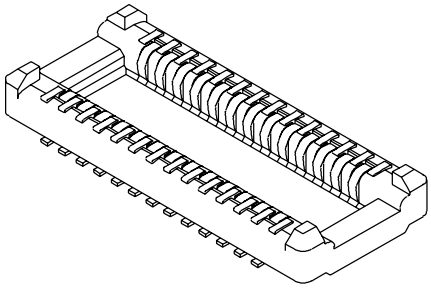
Physical
Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.	Lead-free
10	501591-1011	Yes
12	501591-1211	
20	501591-2011	
22	501591-2211	
24	501591-2411	
26	501591-2611	
30	501591-3011	

Circuits	Order No.	Lead-free
34	501591-3411	Yes
40	501591-4011	
44	501591-4411	
50	501591-5011	
54	501591-5411	
70	501591-7011	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

500027
SMT, Dual Row Vertical Stacking



Features and Benefits
- Sizes 16 to 80 circuits
- Stacking Height: 0.95mm (.037")
- Fitting nails provide PCB hold-down and solder joint

Reference Information
Product Specification: PS-500024-011
Packaging: Embossed tape
Mates With: 500024
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.1A max.
Contact Resistance: 90 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 Megohms min.

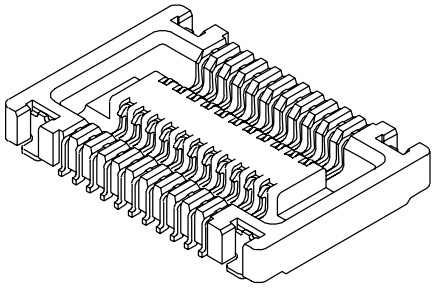
Physical
Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

Circuits	Order No.	Lead-free
16	500027-1641	Yes
20	500027-2041	
24	500027-2441	
30	500027-3041	
34	500027-3441	
40	500027-4041	

Circuits	Order No.	Lead-free
50	500027-5041	Yes
60	500027-6041	
64	500027-6441	
70	500027-7041	
80	500027-8041	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

500024
SMT, Dual Row Vertical Stacking



Features and Benefits
- Sizes 16 to 80 circuits
- Stacking Height: 0.95mm (.037")
- Fitting nails provide PCB hold-down and solder joint

Reference Information
Product Specification: PS-500024-011
Packaging: Embossed tape
Mates With: 500027
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.1A max.
Contact Resistance: 90 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 Megohms min.

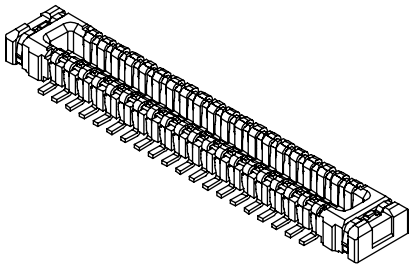
Physical
Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

Circuits	Order No.	Lead-free
16	500024-1681	Yes
20	500024-2081	
24	500024-2481	
30	500024-3071	
34	500024-3471	
40	500024-4071	

Circuits	Order No.	Lead-free
50	500024-5071	Yes
60	500024-6071	
64	500024-6471	
70	500024-7071	
80	500024-8071	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

502430
SMT, Dual Row Vertical Stacking



Features and Benefits
- Sizes 20 to 80 circuits
- Stacking Height: 1.00mm (.039")
- Ultra-narrow mated width of 2.60mm
- Fitting nails provide PCB hold-down and solder joint

Reference Information
Product Specification: PS-502426-001
Packaging: Embossed tape
Mates With: 502426
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.3A max.
Contact Resistance: 80 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

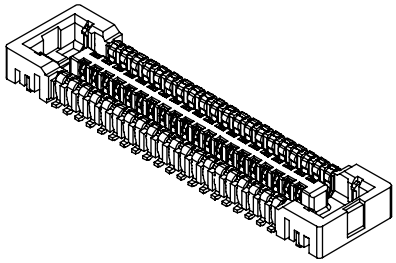
Physical
Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Gold over Nickel plating

Circuits	Order No.	Lead-free
20	502430-2010	Yes
26	502430-2610	
32	502430-3210	
40	502430-4010	

Circuits	Order No.	Lead-free
50	502430-5010	Yes
60	502430-6010	
64	502430-6410	
80	502430-8010	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

502426
SMT, Dual Row Vertical Stacking



Features and Benefits
- Sizes 20 to 80 circuits
- Stacking Height: 1.00mm (.039")
- Ultra-narrow mated width of 2.60mm
- Fitting nails provide PCB hold-down and solder joint

Reference Information
Product Specification: PS-502426-001
Packaging: Embossed tape
Mates With: 502430
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.3A max.
Contact Resistance: 80 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

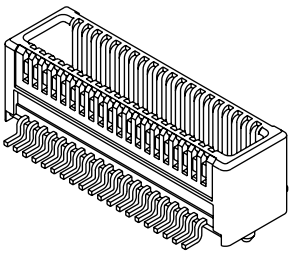
Physical
Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Gold over Nickel plating

Circuits	Order No.	Lead-free
20	502426-2010	Yes
26	502426-2610	
32	502426-3210	
40	502426-4010	

Circuits	Order No.	Lead-free
50	502426-5010	Yes
60	502426-6010	
64	502426-6410	
80	502426-8010	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

55339
SMT, Dual Row Vertical Stacking



Features and Benefits
- Stacking height: 4.00mm (.157")
- Sizes 60 to 150 circuits
- SMT tail design provides strong solder joints and visible inspection
- Positioning pegs assist placement

Reference Information
Product Specification: PS-54477-008
Packaging: Embossed tape
Mates With: 54477
Designed In: Millimeters

Electrical
Voltage: 30V max.
Current: 0.3A max.
Contact Resistance: 60 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: Brown glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel

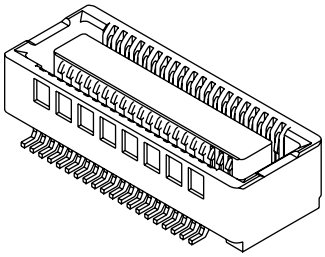
Circuits	Order No.	Lead-free
60	55339-0608	Yes
80	55339-0808	
100	55339-1008	
120	55339-1208	
150	55339-1508	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

54477

SMT, Dual Row Vertical Stacking



Circuits	Order No.	Lead-free
60	54477-0608	Yes
80	54477-0808	
100	54477-1008	
120	54477-1208	
150	54477-1508	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

Features and Benefits

- Stacking height: 4.00mm (.157")
- Sizes 60 to 150 circuits
- Polarizing pegs assist placement
- Anti-flux design
- Durable blade-on-beam contact interface

Reference Information

Product Specification: PS-54477-008
Packaging: Embossed tape
Mates With: 55339
Designed In: Millimeters

Electrical

Voltage: 30V max.
Current: 0.3A max.
Contact Resistance: 60 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

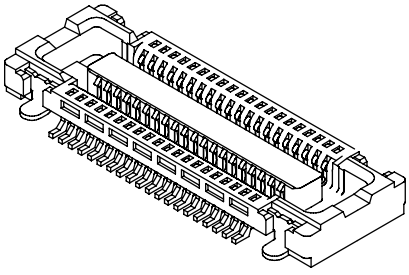
Physical

Housing: Brown glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

54765

SMT, Dual Row, Vertical Stacking



Circuits	Order No.	Lead-free
40	54765-4070	Yes
50	54765-5070	
70	54765-7070	
80	54765-8070	

Features and Benefits

- Stacking height: 1.50mm (.059")
- Housing guide provides mating alignment
- Metal friction lock provides secure mating retention
- High-temperature housing
- Durable blade-on-beam contact interface

Reference Information

Product Specification: PS-54765-012
Packaging: Embossed tape
Mates With: 55604
Designed In: Millimeters

Electrical

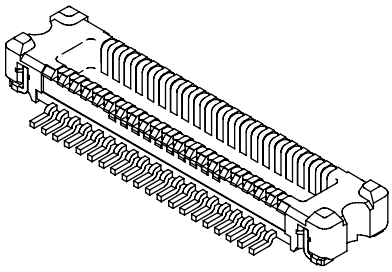
Voltage: 50V max.
Current: 0.3A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Black glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

55604
SMT, Dual Row, Vertical Stacking,



Features and Benefits
- Stacking height: 1.50mm (.059")
- Housing guide provides mating alignment
- Metal friction lock provides secure mating retention
- High-temperature housing

Reference Information
Product Specification: PS-54765-012
Packaging: Embossed tape
Mates With: 54765
Designed In: Millimeters

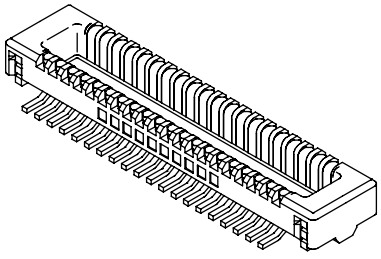
Electrical
Voltage: 50V max.
Current: 0.3A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: Black glass-filled LCP, UL 94V-0
Contact: Brass
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.	Lead-free
40	55604-4070	Yes
50	55604-5070	
70	55604-7070	
80	55604-8070	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

55909
SMT, Dual Row, Vertical Stacking



Features and Benefits
- Stacking Height: 1.50mm with 51338
  1.80mm with 500913
- Sizes 12 to 100 circuits
- J-Lead SMT solder tails offer space savings
- Fitting nails provide PCB hold-down and solder joint protection

Reference Information
Product Specification: PS-51338-002 (with 51338)
PS-500913-001 (with 500913)
Packaging: Embossed tape
Mates With: 51338 and 500913
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.3A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: Black glass-filled LCP, UL 94V-0
Contact: Brass
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

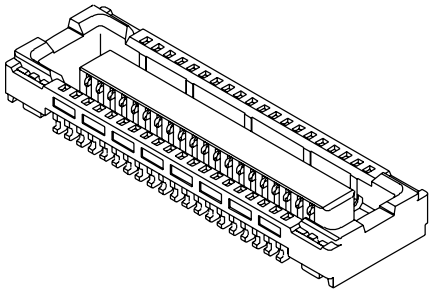
Circuits	Order No.	Lead-free
12	55909-9974	Yes
20	55909-0274	
22	55909-2274	
24	55909-2474	
26	55909-2674	
30	55909-3074	
34	55909-3474	

Circuits	Order No.	Lead-free
40	55909-4074	Yes
50	55909-5074	
60	55909-6074	
70	55909-7074	
80	55909-8074	
90	55909-9074	
100	55909-1074	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

51338

SMT, Dual Row Vertical Stacking



Features and Benefits

- Stacking Height: 1.50mm (.059")
- Sizes 12 to 100 circuits
- J-Lead SMT solder tails offer space savings
- Fitting nails provide PCB hold-down and solder joint

Reference Information

Product Specification: PS-51338-002
Packaging: Embossed tape
Mates With: 55909
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.3A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

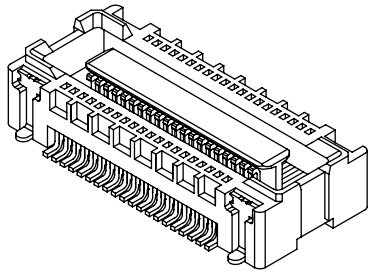
Circuits	Order No.	Lead-free
12	51338-9974	Yes
20	51338-0274	
22	51338-2274	
24	51338-2474	
26	51338-2674	
30	51338-0374	
34	51338-3474	

Circuits	Order No.	Lead-free
40	51338-0474	Yes
50	51338-0574	
60	51338-0674	
70	51338-0774	
80	51338-0874	
90	51338-0974	
100	51338-1074	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

500913

SMT, Dual Row Vertical Stacking



Features and Benefits

- Stacking height: 1.80mm
- Sizes 24 to 100 circuits
- Terminal friction lock provides secure mating retention
- Four fitting nails provide secure PCB hold-down
- Lead-free plating meets environmental requirements

Reference Information

Product Specification: PS-500913-001
Packaging: Embossed tape
Mates With: 55909
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.3A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

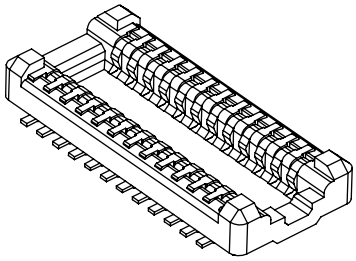
Housing: Black glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.	Lead-free
24	500913-0242	Yes
30	500913-0302	
40	500913-0402	
50	500913-0502	
60	500913-0602	
90	500913-0902	
100	500913-1002	

0.40mm (.016") Pitch Board-to-Board Receptacle

87820

SMT, Dual Row 0.95mm (.037") Height



Features and Benefits

- Cantilever-type gold contacts able to withstand severe shock and vibration
- Flat housing area facilitates auto pick-and-place
- High-temperature LCP housing material allows high-temperature SMT soldering processes
- Embossed tape packaging enables pick-and-place assembly
- High-coating on housings provides anti-solder wicking
- Wide-angled mating surface minimizes risk of damage during mating
- Good SMT tail co-planarity assures good solder joints on PCB

Reference Information

Product Specification: PS-87820-028
UL File No.: E29179
CSA File No.: 1699280
Packaging: Embossed tape on reel
Mates With: 87819
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.1A
Contact Resistance: 90 milliohms max.
Dielectric Withstanding Voltage: 125V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention: 0.5N
Durability: 10 cycles

Physical

Housing: Black LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.1µm (0.4µ") Gold
Solder Tail Area—0.1µm (0.4µ") Gold
Underplating: Nickel

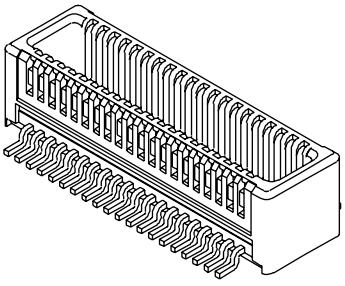
Circuits	Order No.		Lead-free
	Without Solder Tab	With Solder Tab	
14	87820-0014	87820-0514	Yes
24	87820-0024	87820-0524	
30	87820-0030	87820-0530	
40	87820-0040	87820-0540	
50	87820-0050	87820-0550	
60	87820-0060	87820-0560	

www.molex.com/customer.html?seriesNumber=87820

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

55526

SMT, Dual Row Vertical Stacking



Features and Benefits

- Stacking Height: 3.50mm (.138")
- High-temperature housing
- Double blade-on-beam contact interface

Reference Information

Product Specification: PS-54634-006
Packaging: Embossed tape
Mates With: 54684
Designed In: Millimeters

Electrical

Voltage: 30V max.
Current: 0.3A max.
Contact Resistance: 60 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

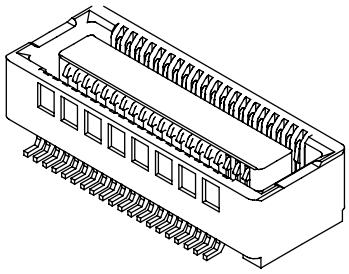
Housing: Brown glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel

Circuits	Order No.	Lead-free
70	55526-0708	Yes
80	55526-0808	
90	55526-0908	
120	55526-1208	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

54684

SMT, Dual Row, Vertical Stacking



Circuits	Order No.	Lead-free
24	54684-0244	Yes
70	54684-0704	
80	54684-0804	
90	54684-0904	
100	54684-1004	
120	54684-1204	

Features and Benefits

- Stacking height: 3.50mm
- Locking feature provides secure mating
- High-temperature housing
- Durable blade-on-beam contact interface
- Anti-flux design

Reference Information

Product Specification: PS-54684-006
Packaging: Embossed tape
Mates With: 55526
Designed In: Millimeters

Electrical

Voltage: 30V max.
Current: 0.3A max.
Contact Resistance: 60 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

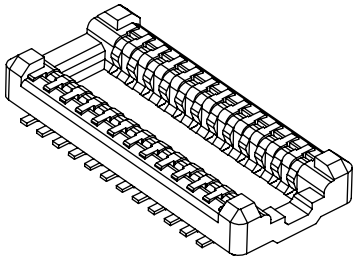
Housing: Brown glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel

www.molex.com/product/bb/slimstack.html

0.40mm (.016") Pitch Board-to-Board Plug

87819

SMT, Dual Row 0.95mm (.037") Height



Circuits	Order No.		Lead-free
	Without Solder Tab	With Solder Tab	
14	87819-0014	87819-0514	Yes
24	87819-0024	87819-0524	
30	87819-0030	87819-0530	
40	87819-0040	87819-0540	
50	87819-0050	87819-0550	
60	87819-0060	87819-0560	

Features and Benefits

- Cantilever-type gold contacts able to withstand severe shock and vibration
- Flat housing area facilitates auto pick-and-place
- High-temperature LCP housing material allows high-temperature SMT soldering processes
- Embossed tape packaging enables pick-and-place assembly
- High-coating on housings provides anti-solder wicking
- Wide-angled mating surface minimizes risk of damage during mating
- Good SMT tail co-planarity assures good solder joints on PCB

Reference Information

Product Specification: PS-87820-028
UL File No.: E29179
CSA File No.: 1699280
Packaging: Embossed tape on reel
Mates With: 87820
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.1A
Contact Resistance: 90 milliohms max.
Dielectric Withstanding Voltage: 125V AC
Insulation Resistance: 100 Megohms min.

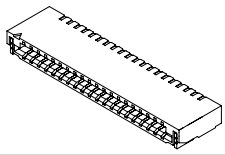
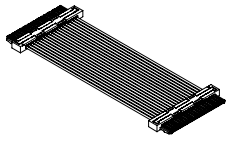
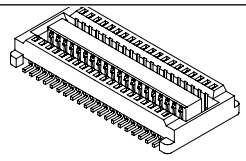
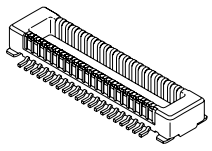
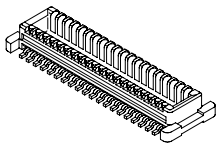
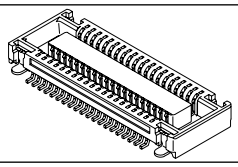
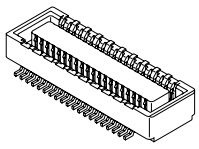
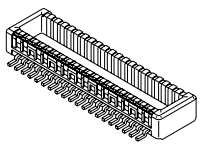
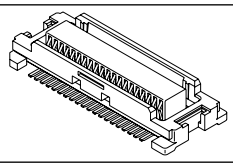
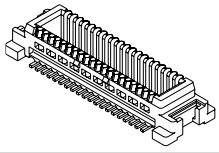
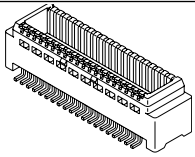
Mechanical

Contact Retention: 0.5N
Durability: 10 cycles

Physical

Housing: Black LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.1µm (0.4µ") Gold
Solder Tail Area—0.1µm (0.4µ") Gold
Underplating: Nickel

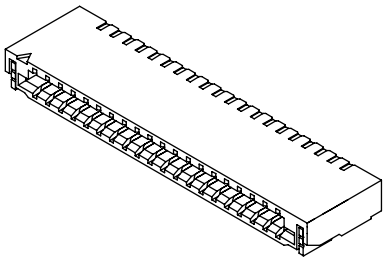
0.50mm (.020") Pitch

Pitch	Series		Tradename	Description	Stacking Height
0.50mm (.020")	500678			PCB Receptacle, Right Angle	1.20mm (.047")
	59205			Cable Plug Assembly	
	54729		SlimStack™	Receptacle	2.00mm (.079")
	55650			Plug	2.00mm (.079")
	55559			Plug	2.00mm (.079")
	54363			Receptacle	2.00 and 3.00mm (.079 and .118")
	54102			Receptacle	2.50mm (.098")
	53885/500334			Plug	2.50mm (.098")
	52991/54167			Receptacle	3.00 and 4.00mm (.118 and .157")
	53748			Plug	3.00mm (.118")
	53916			Plug	4.00mm (.157")

0.50mm (.020") Pitch Wire-to-Board PCB Receptacle

500678

SMT, Right Angle



Circuits	Order No.	Lead-free
10	500678-1070	Yes
20	500678-2070	
30	500678-3070	

Features and Benefits

- Compact size provides space savings
- Solder tabs provide secure PCB retention
- Connector-to-connector polarization ensures proper mating
- Friction lock provides secure mating retention

Reference Information

Product Specification: PS-500678-002
Packaging: Embossed tape
Mates With: 59205
Designed In: Millimeters

Electrical

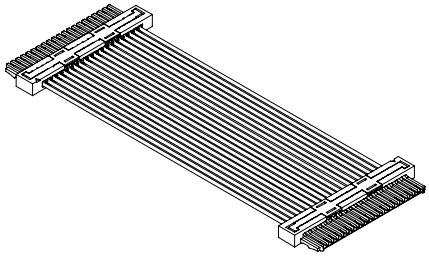
Voltage: 30V max.
Current: 0.4A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 200V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: White heat resistant Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel

0.50mm (.020") Pitch Wire-to-Board Plug Harness

59205



Order No.	Lead-free
59205-99XX	Yes

Note: Contact Molex for ordering numbers and further details.

Features and Benefits

- Friction lock ensures high retention force
- Retainer provides strain relief to solder termination areas

Reference Information

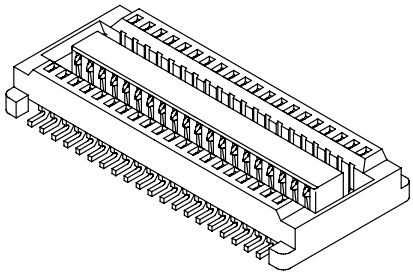
Product Specification: PS-500678-002
Packaging: Bag
Mates With: 500678
Designed In: Millimeters

Electrical

Voltage: 30V max.
Current: 0.4A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 200V AC/1 min.
Insulation Resistance: 100 Megohms min.

0.50mm (.020") Pitch SlimStack™ Board-to-Board Receptacle

54729
SMT, Dual Row, Vertical Stacking



Circuits	Order No.	Lead-free
16	54729-0166	Yes
24	54729-0246	

Features and Benefits
- Stacking height: 2.00mm (.079")
- Locking feature provides secure mating
- Durable blade-on-beam contact interface
- Anti-flux design

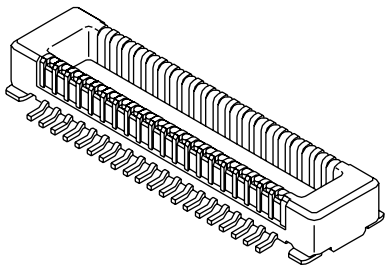
Reference Information
Product Specification: PS-54729-013
Packaging: Embossed tape
Mates With: 55559
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 Megohms min.

Physical
Housing: Black glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel

0.50mm (.020") Pitch SlimStack™ Board-to-Board Plug

55650
SMT, Dual Row Vertical Stacking



Circuits	Order No.	Lead-free
20	55650-0288	Yes
30	55650-0388	
40	55650-0488	
50	55650-0588	
60	55650-0688	
70	55650-0788	

Features and Benefits
- Stacking Height: 2.00mm (.079")
- Sizes 20 to 70 circuits
- Fitting nails provide PCB hold-down and solder joint
- Anti-flux design

Reference Information
Product Specification: PS-54363-046
Packaging: Embossed tape
Mates With: 54363
Designed In: Millimeters

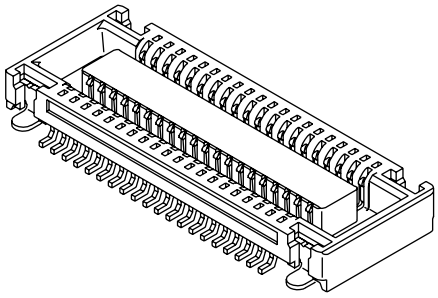
Electrical
Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: Black glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

0.50mm (.020") Pitch SlimStack™ Board-to-Board Receptacle

54363

SMT, Dual Row Vertical Stacking



Features and Benefits

- Stacking height: 2.00mm (.079")
- Sizes 20 to 70 circuits
- Locking feature provides secure mating
- Fitting nails provide PCB hold-down and strain relief for SMT tails
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Product Specification: PS-54363-046
Packaging: Embossed tape
Mates With: 55650
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A* max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Black glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

* Total current must not exceed 10A max.

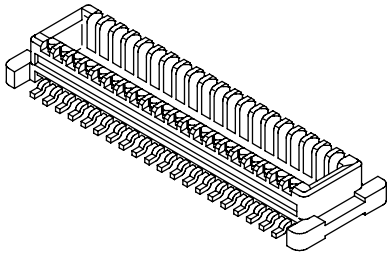
Circuits	Order No.	Lead-free
20	54363-0289	Yes
30	54363-0389	
40	54363-0489	
50	54363-0589	
60	54363-0689	
70	54363-0778	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch SlimStack™ Board-to-Board Plug

55559

SMT, Dual Row, Vertical Stacking



Features and Benefits

- Stacking height: 2.00mm
- Metal friction lock provides secure mating
- Durable blade-on-beam contact interface
- Anti-flux design

Reference Information

Product Specification: PS-54729-013
Packaging: Embossed tape
Mates With: 54729
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 Megohms min.

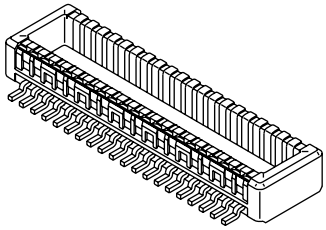
Physical

Housing: Black glass-filled LCP, UL 94V-0
Contact: Brass
Plating: Gold over Nickel

Circuits	Order No.	Lead-free
16	55559-0168	Yes
24	55559-0248	

0.50mm (.020") Pitch SlimStack™ Board-to-Board Plug

53885/500334
SMT, Dual Row Vertical Stacking



Features and Benefits
- Stacking height: 2.50mm (.098")
- Sizes 16 to 70 circuits
- Locking feature provides secure mating
- Durable blade on beam contact interface
- Anti-flux design

Reference Information
Product Specification: PS-54102-001 (53885)
PS-54102-010 (500334)
Packaging: Embossed tape
Mates With: 54102
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

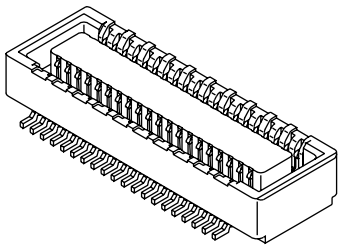
Physical
Housing: Black glass-filled LCP, UL 94V-0
Contact: Brass
Plating: Gold over Nickel

Circuits	Order No.	Lock Position	Lead-free
16	500334-0160	All	Yes
20	500334-0201		
30	500334-0300		
40	53885-0408	3, 6, 9, 12, 15, 18	
50	53885-0508	4, 10, 16, 22	
60	53885-0608	10, 21	
70	53885-0708	None	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch SlimStack™ Board-to-Board Receptacle

54102
SMT, Dual Row Vertical Stacking



Features and Benefits
- Stacking height: 2.50mm (.098")
- Sizes 16 to 70 circuits
- Locking feature provides secure mating
- Durable blade on beam contact interface
- Anti-flux design

Reference Information
Product Specification: PS-54102-011 (with 53885)
PS-54102-010 (with 500334)
Packaging: Embossed tape
Mates With: 53885 and 500334
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: Black glass-filled PPA, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel

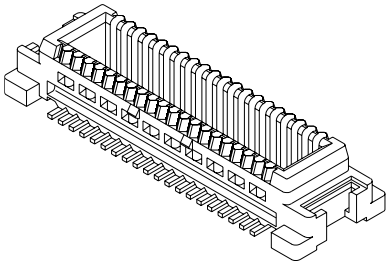
Circuits	Order No.	Lead-free
16	54102-0164	Yes
20	54102-0204	
30	54102-0304	
40	54102-0404	
50	54102-0504	
70	54102-0704	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch SlimStack™ Board-to-Board Plug

53748

SMT, Dual Row Vertical Stacking



Features and Benefits

- Stacking height: 3.0mm
- Sizes 20 to 80 circuits
- Locking feature provides secure mating
- High temperature housing
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Product Specification: PS-52991-003
Packaging: Embossed tape
Mates With: 52991/54167
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: White glass-filled LCP, UL 94V-0
Contact: Brass
Plating: Gold over Nickel

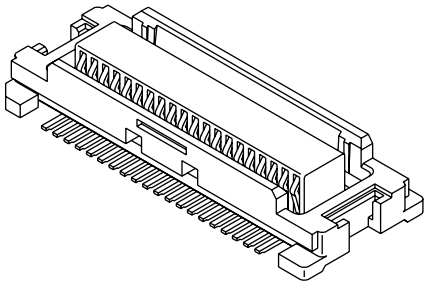
Circuits	Order No.	Lead-free
20	53748-0208	Yes
30	53748-0308	
40	53748-0408	
60	53748-0608	
70	53748-0708	
80	53748-0808	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch SlimStack™ Board-to-Board Receptacle

52991/54167

SMT, Dual Row Vertical Stacking



Features and Benefits

- Stacking Heights: 3.0 and 4.0mm
- Sizes 20 to 80 circuits
- Locking feature provides secure mating
- High temperature housing
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Product Specification: PS-52991-003 (with 53748)
PS-54167-002 (with 53916)
Packaging: Embossed tape
Mates With: 53748 (H = 3.0mm)
53916 (H = 4.0mm)
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 53748—50 milliohms max.
53916—60 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel

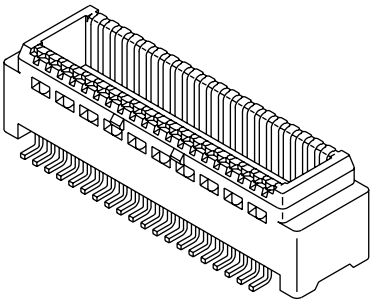
Circuits	Order No.		Lead-free
	White	Black	
20	52991-0208	54167-0208	Yes
30	52991-0308	54167-0308	
40	52991-0408	54167-0408	
50	52991-0508	54167-0508	
60	52991-0608	54167-0608	
70	52991-0708		
80	52991-0808	54167-0808	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch SlimStack™ Board-to-Board Plug

53916

SMT, Dual Row Vertical Stacking



Circuits	Order No.	Lead-free
20	53916-0208	Yes

Note: Use only one connector per daughterboard in order to insure proper mating alignment

Features and Benefits

- Stacking height: 4.0mm
- Locking feature provides secure mating
- High temperature housing
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Product Specification: PS-54167-002
Packaging: Embossed tape
Mates With: 52991, 54167
Designed In: Millimeters

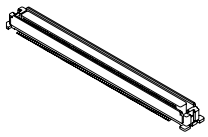
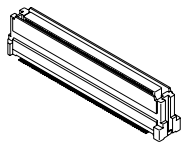
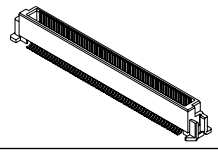
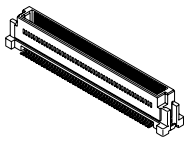
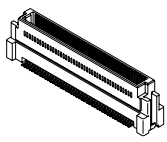
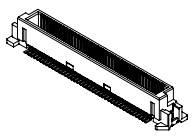
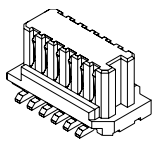
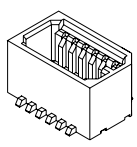
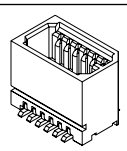
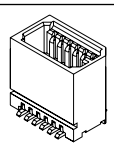
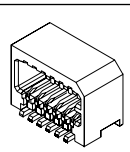
Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 60 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

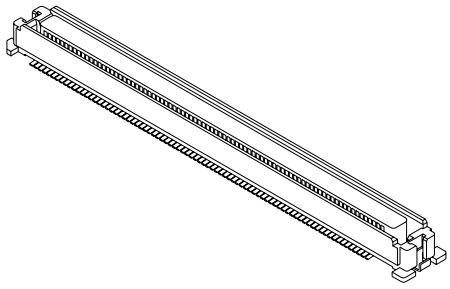
Housing: Black glass-filled LCP, UL 94V-0
Contact: Brass
Plating: Gold over Nickel

0.635mm (.025") and 0.80mm (.031") Pitch

Pitch	Series		Tradename	Description	Stacking Height
0.635mm (.025")	52760/52885		SlimStack™	Receptacle	5.00 and 10.00mm (.197 and .394")
	52837/52901			Receptacle	11.00 and 16.00mm (.433 and .630")
	53481/53625			Plug	7.00 and 13.00mm (.276 and .512")
	53551/53647			Plug	8.00 and 14.00mm (.315 and .551")
	53553/53627			Plug	10.00 and 16.00mm (.394 and .630")
	55091			Header	6.00 and 12.00mm (.236 and .472")
0.80mm (.031")	52465			Receptacle	4.50, 6.00 and 7.00mm (.177, .236 and .276")
	53307			Header	4.50 and 5.50mm (.177 and .217")
	53364			Header	6.00 and 7.00mm (.236 and .276")
	53353			Header	7.00 and 8.00mm (.276 and .315")
	53309			Header, Right Angle	5.65 and 6.65mm (.222 and .262")

0.635mm (.025") Pitch SlimStack™ Board-to-Board Receptacle

52885
SMT, Dual Row Vertical Stacking



Features and Benefits
- Stacking height: 6.0 to 10mm
- Sizes 20 to 240 circuits
- Housing lock on 20 to 70 circuits
- Anti-flux design
- Fitting nails provide PCB hold down and strain relief for SMT tails
- Polarizing pegs assist placement

Reference Information
Product Specification: PS-52760-015
Packaging: Embossed tape
Mates With: 55091 (H = 6.0mm)
53625 (H = 7.0mm)
53647 (H = 8.0mm)
53627 (H = 10.0mm)
Designed In: Millimeters

Electrical
Voltage: 100V max.
Current: 0.5A max.
Contact Resistance:
40 milliohms max. (H=6.0, 7.0mm)
50 milliohms max. (H=8.0, 10.0mm)
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: White glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

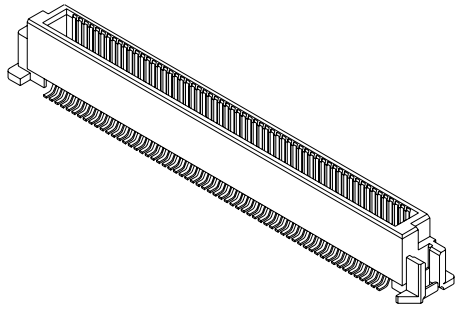
Circuits	Order No.	Lead-free
20	52885-0274	Yes
30	52885-0374	
40	52885-0474	
50	52885-0574	
60	52885-0674	
70	52885-0774	
80	52885-0874	

Circuits	Order No.	Lead-free
90	52885-0974	Yes
100	52885-1074	
120	52885-1274	
140	52885-1474	
160	52885-1674	
240	52885-2474	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.635mm (.025") Pitch SlimStack™ Board-to-Board Plug

53625
SMT, Dual Row Vertical Stacking



Features and Benefits
- Stacking height: 7.0 and 13.0mm
- Sizes 30 to 240 circuits
- Housing lock on 20 to 70 circuits
- Anti-flux design
- Fitting nails provide PCB hold down and strain relief for SMT tails
- Polarizing pegs assist placement

Reference Information
Product Specification: PS-52760-015
Packaging: Embossed tape
Mates With: 52885 (H = 7.0mm)
52901 (H = 13.0mm)
Designed In: Millimeters

Electrical
Voltage: 100V max.
Current: 0.5A max.
Contact Resistance: 40 milliohms max. (H=7.0mm)
60 milliohms max. (H=13.0mm)
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Brown glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

Circuits	Order No.	Lead-free
30	53625-0374	Yes
40	53625-0474	
50	53625-0574	
80	53625-0874	
90	53625-0974	

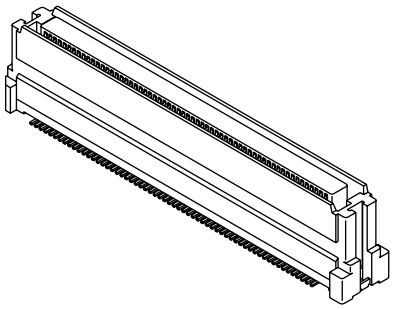
Circuits	Order No.	Lead-free
120	53625-1274	Yes
140	53625-1474	
160	53625-1674	
240	53625-2474	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.635mm (.025") Pitch SlimStack™ Board-to-Board Receptacle

52901

SMT, Dual Row Vertical Stacking



Features and Benefits

- Stacking height: 12.0 to 16.0mm
- Sizes 20 to 140 circuits
- Housing lock on 20 to 70 circuits
- Anti-flux design
- Fitting nails provide PCB hold down and strain relief for SMT tails
- Polarizing pegs assist placement

Reference Information

Product Specification: PS-52760-015
Packaging: Embossed tape
Mates With: 55091 (H = 12.0mm)
53625 (H = 13.0mm)
53647 (H = 14.0mm)
53627 (H = 16.0mm)
Designed In: Millimeters

Electrical

Voltage: 100V max.
Current: 0.5A max.
Contact Resistance:
60 milliohms max. (H=12.0, 13.0mm)
70 milliohms max. (H=14.0, 16.0mm)
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical

Housing: White glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

Circuits	Order No.	Lead-free
20	52901-0274	Yes
30	52901-0374	
40	52901-0474	
60	52901-0674	
70	52901-0774	

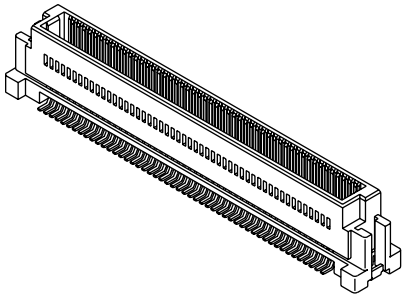
Circuits	Order No.	Lead-free
80	52901-0874	
90	52901-0974	
100	52901-1074	
120	52901-1274	
140	52901-1474	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.635mm (.025") Pitch SlimStack™ Board-to-Board Plug

53647

SMT, Dual Row Vertical Stacking



Features and Benefits

- Stacking height: 8.0 and 14.0mm
- Sizes 20 to 160 circuits
- Housing lock on 20 to 40 circuits
- Anti-flux design
- Fitting nails provide PCB hold down and strain relief for SMT tails
- Polarizing pegs assist placement

Reference Information

Product Specification: PS-52760-015
Packaging: Embossed tape
Mates With: 52885 (H = 8.0mm)
52901 (H = 14.0mm)
Designed In: Millimeters

Electrical

Voltage: 100V max.
Current: 0.5A max.
Contact Resistance: 50 milliohms max. (H=8.0mm)
70 milliohms max. (H=14.0mm)
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical

Housing: Brown glass-filled PPS, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel

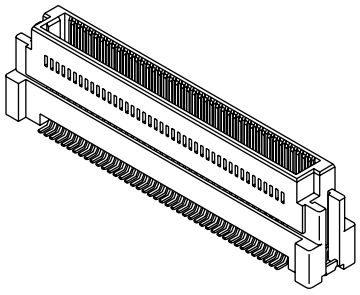
Circuits	Order No.	Lead-free
20	53647-0274	Yes
30	53647-0374	
40	53647-0474	
60	53647-0674	
80	53647-0874	

Circuits	Order No.	Lead-free
100	53647-1074	Yes
120	53647-1274	
140	53647-1474	
160	53647-1674	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.635mm (.025") Pitch SlimStack™ Board-to-Board Plug

53627
SMT, Dual Row Vertical Stacking



Features and Benefits
- Stacking height: 10.0 and 16.0mm
- Sizes 20 to 140 circuits
- Housing lock on 20 to 70 circuits
- Anti-flux design
- Fitting nails provide PCB hold down and strain relief for SMT tails
- Polarizing pegs assist placement

Reference Information
Product Specification: PS-52760-015
Packaging: Embossed tape
Mates With: 52885 (H = 10.0mm)
52901 (H = 16.0mm)
Designed In: Millimeters

Electrical
Voltage: 100V max.
Current: 0.5A max.
Contact Resistance: 50 milliohms max. (H=10.0mm)
70 milliohms max. (H=16.0mm)
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Brown glass-filled PPS, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

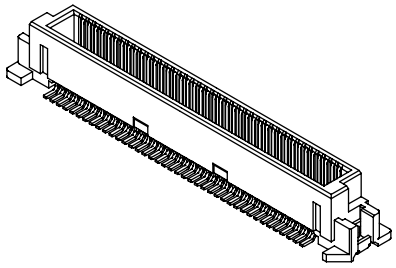
Circuits	Order No.	Lead-free
20	53627-0274	Yes
30	53627-0374	
40	53627-0474	
50	53627-0574	
60	53627-0674	
70	53627-0774	

Circuits	Order No.	Lead-free
80	53627-0874	Yes
90	53627-0974	
100	53627-1074	
120	53627-1274	
140	53627-1474	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.635mm (.025") Pitch SlimStack™ Board-to-Board Plug

55091
SMT, Dual Row, Vertical Stacking



Features and Benefits
- Stacking heights of 6.00 and 12.00mm (.236 and .472")
- Sizes 20 to 160 circuits
- Housing lock on 20 to 70 circuits
- Anti-flux design
- Fitting nails provide PCB hold-down and strain relief for SMT tails
- Polarizing pegs assist placement onto PCB

Reference Information
Product Specification: PS-52760-015
Packaging: Embossed tape
Mates With: 52885 (H = 6.0mm)
52901 (H = 12.0mm)
Designed In: Millimeters

Electrical
Voltage: 100V max.
Current: 0.5A max.
Contact Resistance: 40 milliohms max., 60 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 1000 Megohms min.

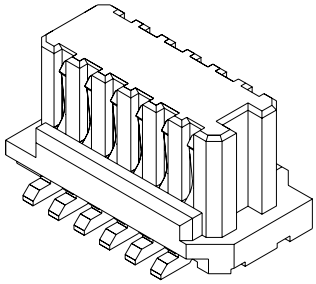
Physical
Housing: Black glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

Circuits	Order No.	Lead-free
20	55091-0274	Yes
30	55091-0374	
40	55091-0474	
50	55091-0574	
60	55091-0674	
70	55091-0774	

Circuits	Order No.	Lead-free
80	55091-0874	Yes
90	55091-0974	
100	55091-1074	
120	55091-1274	
140	55091-1474	
160	55091-1674	

0.80mm (.031") Pitch Board-to-Board Receptacle

52465
Dual Row SMT



Features and Benefits
- Stacking Heights: 4.5 to 7.0mm (5.65mm right angle mated height)
- Sizes 10 to 40 circuits

Reference Information
Product Specification: PS-52465-015 (with 53307)
PS-52465-010 (with 53364, 53353)
PS-52465-014 (with 53309)
Packaging: Embossed tape
Mates With: 53307 (H = 4.5mm)
53309 (H = 5.65mm)
53364 (H = 6.0mm)
53353 (H = 7.0mm)
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: PPA, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin over Nickel

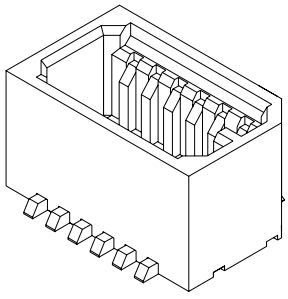
Circuits	Order No.	Lead-free
10	52465-1071	Yes
12	52465-1271	
14	52465-1471	
16	52465-1671	
18	52465-1871	
20	52465-2071	
22	52465-2271	
24	52465-2471	

Circuits	Order No.	Lead-free
26	52465-2671	Yes
28	52465-2871	
30	52465-3071	
32	52465-3271	
34	52465-3471	
36	52465-3671	
40	52465-4071	

www.molex.com/customer.html?seriesNumber=52465

0.80mm (.031") Pitch Board-to-Board Plug

53307
SMT, Dual Row Vertical Stacking



Features and Benefits
- Stacking height: 4.5mm
- Sizes 10 to 40 circuits

Reference Information
Product Specification: PS-52465-015
Packaging: Embossed tape
Mates With: 52465
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin over Nickel

Circuits	Order No.	Lead-free
10	53307-1071	Yes
12	53307-1271	
14	53307-1471	
16	53307-1671	
18	53307-1871	
20	53307-2071	

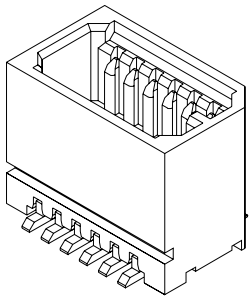
Circuits	Order No.	Lead-free
24	53307-2471	Yes
26	53307-2671	
28	53307-2871	
30	53307-3071	
36	53307-3671	
40	53307-4071	

www.molex.com/customer.html?seriesNumber=53307

0.80mm (.031") Pitch Board-to-Board Plug

53364

SMT, Dual Row Vertical Stacking



Features and Benefits

- Stacking height: 6.0mm
- Sizes 18 to 36 circuits

Reference Information

Product Specification: PS-52465-010
Packaging: Embossed tape
Mates With: 52465
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin over Nickel

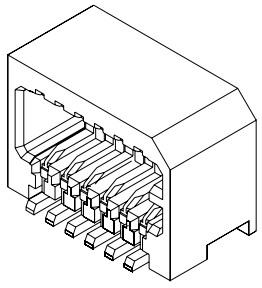
Circuits	Order No.	Lead-free
18	53364-1871	Yes
20	53364-2071	
30	53364-3071	
36	53364-3671	

www.molex.com/customer.html?seriesNumber=53364

0.80mm (.031") Pitch Board-to-Board Plug

53309

SMT, Dual Row Right Angle



Features and Benefits

- Mated height: 5.65mm
- Sizes 10 to 40 circuits

Reference Information

Product Specification: PS-52465-014
Packaging: Embossed tape
Mates With: 52465
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin over Nickel

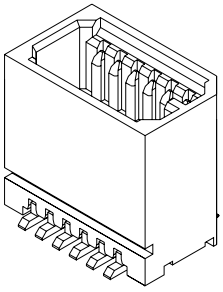
Circuits	Order No.	Lead-free
10	53309-1070	Yes
12	53309-1270	
14	53309-1470	
16	53309-1670	
18	53309-1870	
20	53309-2070	
22	53309-2270	
24	53309-2470	

Circuits	Order No.	Lead-free
26	53309-2670	Yes
28	53309-2870	
30	53309-3070	
32	53309-3270	
34	53309-3470	
36	53309-3670	
40	53309-4070	

0.80mm (.031") Pitch Board-to-Board Plug

53353

SMT, Dual Row Vertical Stacking



Circuits	Order No.	Lead-free
10	53353-1071	Yes
16	53353-1671	
18	53353-1871	
20	53353-2071	
28	53353-2871	
30	53353-3071	

Features and Benefits

- Stacking height: 7.0mm
- Sizes 10 to 30 circuits

Reference Information

Product Specification: PS-52465-010
Packaging: Embossed tape
Mates With: 52465
Designed In: Millimeters

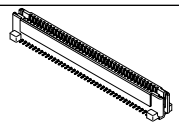
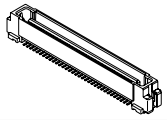
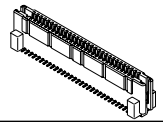
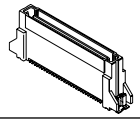
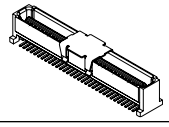
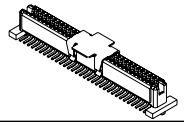
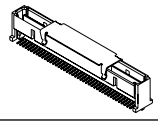
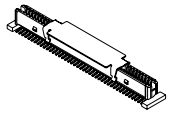
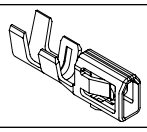
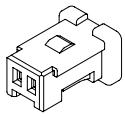
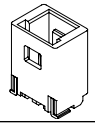
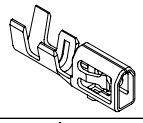
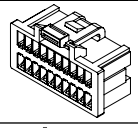
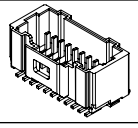
Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

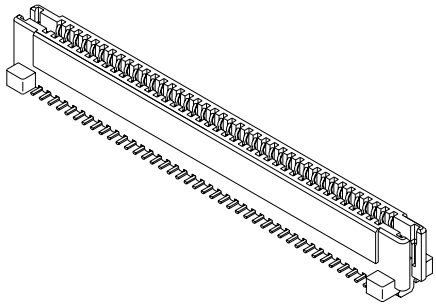
Housing: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin

1.00mm (.039") Pitch

Pitch	Series		Tradename	Description
1.00mm (.039")	52584		SlimStack™	Receptacle
	53395			Plug
	52602			Receptacle
	53408			Plug
	71436		Mezzanine IEEE 1386	Plug
	71439			Receptacle
	71741		Mezzanine	Plug
	71742			Receptacle
	501334		Pico-Clasp™	Crimp Terminal
	501330			Housing
	501331			Header
	501193			Crimp Terminal
	501189			Housing
	501190			Header

1.00mm (.039") Pitch SlimStack™ Board-to-Board Receptacle

52584
SMT, Dual Row Vertical Stacking



Features and Benefits
- Stacking heights: 8.0 and 18.0mm
- Sizes 20 to 140 circuits
- Leaf-style design protects pins
- Anti-flux design
- Low insertion force
- Polarization pegs assist placement

Reference Information
Product Specification: PS-52584-003
Packaging: Tube
Mates With: 53395 (H = 8.0mm)
53408 (H = 18.0mm)
Designed In: Millimeters

Electrical
Voltage: 100V max.
Current: 0.5A max.
Contact Resistance:
40 milliohms max. (H=8.0mm)
70 milliohms max. (H=18.0mm)
Dielectric Withstanding Voltage: 200V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: White glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel

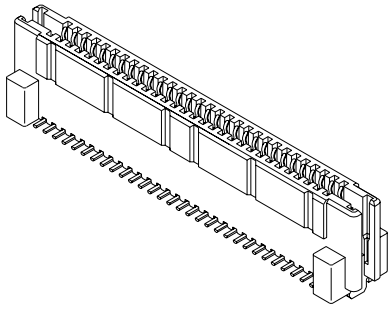
Circuits	Order No.	Lead-free
20	52584-0279	Yes
34	52584-3479	
50	52584-0579	
60	52584-0679	
66	52584-6679	

Circuits	Order No.	Lead-free
80	52584-0879	Yes
100	52584-1079	
120	52584-1279	
140	52584-1479	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

1.00mm (.039") Pitch SlimStack™ Board-to-Board Receptacle

52602
SMT, Dual Row Vertical Stacking



Features and Benefits
- Stacking heights: 20.0mm
- Sizes 50 to 120 circuits
- Leaf-style design protects pins
- Anti-flux design
- Low insertion force
- Polarization pegs assist placement

Reference Information
Product Specification: PS-52584-003
Packaging: Tube
Mates With: 53408
Designed In: Millimeters

Electrical
Voltage: 100V max.
Current: 0.5A max.
Contact Resistance: 70 milliohms max.
Dielectric Withstanding Voltage: 200V AC/1 min.
Insulation Resistance: 1000 Megohms min.

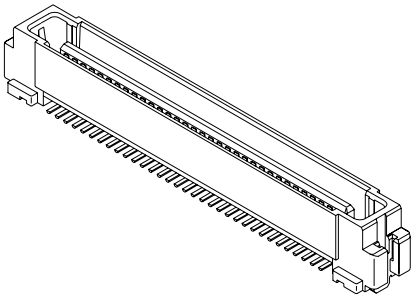
Physical
Housing: White glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel

Circuits	Order No.	Lead-free
50	52602-0579	Yes
60	52602-0679	
120	52602-1279	

Note: Use only one connector per daughterboard in order to insure proper mating alignment

1.00mm (.039") Pitch SlimStack™ Board-to-Board Plug

53395
SMT, Dual Row Vertical Stacking



Features and Benefits
- Stacking heights: 8.0mm
- Sizes 20 to 140 circuits
- Leaf-style design protects pins
- Anti-flux design
- Low insertion force
- Polarization pegs assist placement

Reference Information
Product Specification: PS-52584-003
Packaging: Tube
Mates With: 52584
Designed In: Millimeters

Electrical
Voltage: 100V max.
Current: 0.5A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 200V AC/1 min.
Insulation Resistance: 1000 Megohms min.

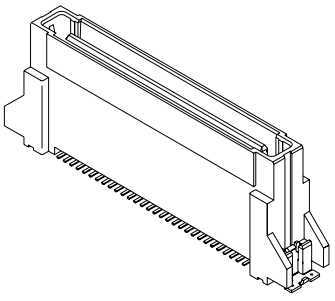
Physical
Housing: White glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel

Circuits	Order No.	Lead-free
20	53395-0279	Yes
34	53395-3479	
66	53395-6679	
100	53395-1079	
140	53395-1479	

Note: Contact Molex for embossed tape specifications
Note: Use only one connector per daughterboard in order to insure proper mating alignment

1.00mm (.039") Pitch SlimStack™ Board-to-Board Plug

53408
SMT, Dual Row Vertical Stacking



Features and Benefits
- Stacking heights: 18.0, 20.0mm
- Sizes 50 to 140 circuits
- Leaf-style design protects pins
- Antiflux design
- Low insertion force
- Polarization pegs assist placement

Reference Information
Product Specification: PS-52584-003
Packaging: Tube
Mates With: 52584 (H = 18.0mm)
52602 (H = 20.0mm)
Designed In: Millimeters

Electrical
Voltage: 100V max.
Current: 0.5A max.
Contact Resistance: 70 milliohms max.
Dielectric Withstanding Voltage: 200V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: White glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel

Circuits	Order No.	Lead-free
50	53408-0579	Yes
60	53408-0679	
80	53408-0879	
100	53408-1079	
120	53408-1279	
140	53408-1479	

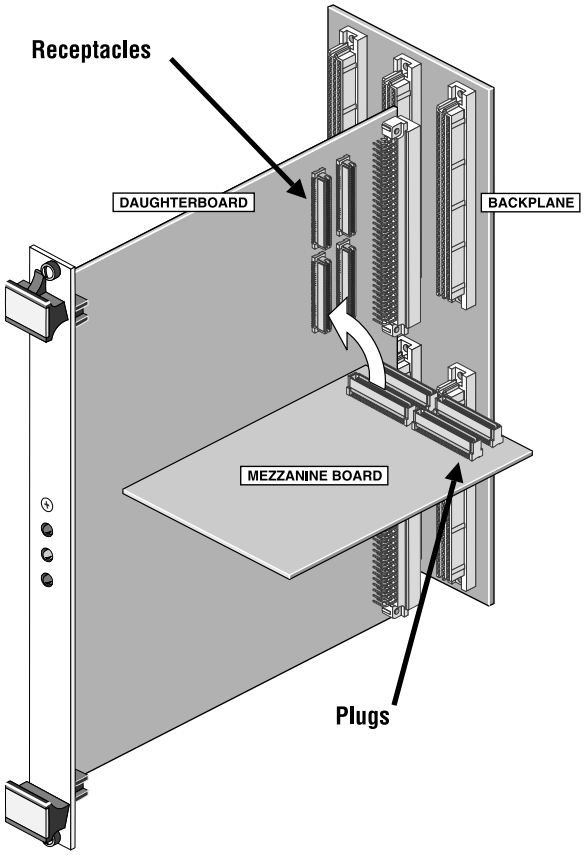
Note: Contact Molex for embossed tape specifications
Note: Use only one connector per daughterboard in order to insure proper mating alignment

1.00mm (.039") Pitch Mezzanine IEEE 1386 SMT Stacking Board-to-Board Connectors

The IEEE 1386 Standard contains the details for adding standardized general option, PCI and other mezzanine cards to VMEbus and compact PCI and other types of host boards. There are also many networking, telecommunications, PC and workstation users who want a standardized mezzanine scheme and see the IEEE 1386 as the best approach.

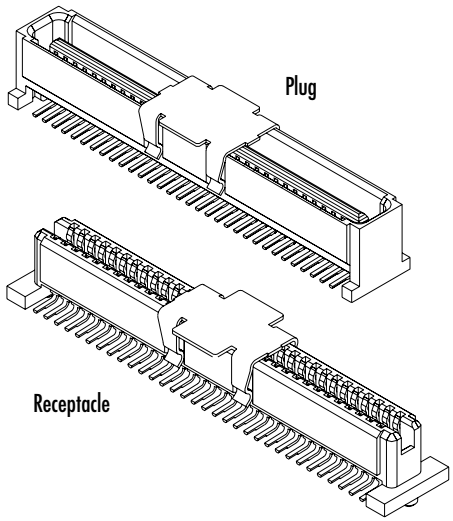
Molex's fully-shrouded leaf-style design minimizes the chance of damaging plug contacts, and our receptacle contacts feature a low mating force, reducing PC board stress. Gold-over-Nickel contact plating enhances long-term reliability and UL 94V-0 LCP housings withstand SMT reflow processes. Excellent tolerance absorption allows the connector to be used in combinations of 1-4 mated pairs for up to 256 circuits.

As the need for faster signal speeds increases, the need for better performance and signal integrity performance of connectors also increases. The 1.00mm (.039") mezzanine connectors from Molex provide the excellent performance required by today's high-speed systems. For example, Molex 1.00mm (.039") mezzanine connectors can be used in a 5.0 Gbps application by using grounds between each differential pair (G-S-S-G), resulting in a differential impedance of 100 ohms ± 10% and 2.23% NEXT at a 50psec (10/90%) risetime. At –3dB, the insertion loss for the Molex 1.00mm (.039") mezzanine connectors is 7.3GHz. At –10dB, the differential return loss is 6.2GHz.



1.00mm (.039") Mezzanine IEEE 1386 Board-to-Board Plug/Receptacle

71436/71439
Dual Row, SMT Vertical Stacking



Features and Benefits
- Mated heights: 8, 9, 10, 11, 12, 13, 14 and 15mm
- Size 64 circuits
- Leaf-style design protects pins
- Low insertion force
- Up to 4 mated pairs can be used
- LCP housing for use with SMT processing temps

Reference Information
Product Specification: PS-71436-9999
Packaging: Tube or tape and reel
UL File No.: E29179

Electrical
Voltage: 100V
Current: 1.0A
Contact Resistance: 30 milliohms max.

Mechanical
Contact Retention to Housing: 0.4kgf min.
Mating Force: 50g max. per contact
Unmating Force: 25g min. per contact

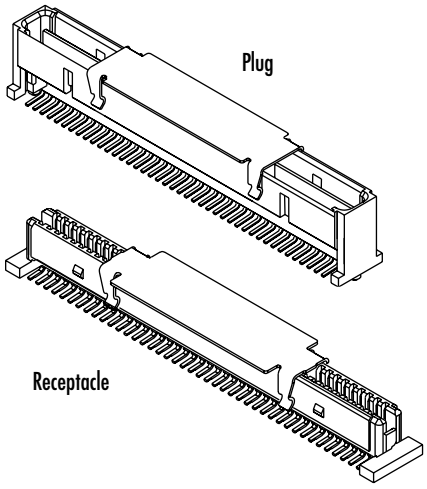
Physical
Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: 30µ" Gold min.

Circuits	Mated Stack Height	Pegs	Packaging	Order No.		Lead-free
				Plug	Receptacle	
64	8.00mm (.315")	Yes	Tape and Reel	71436-0464	71439-0464	Yes
			Tube	71436-0164	71439-0164	
		No	Tape and Reel	71436-0864	71439-0864	
			Tube	71436-0564	Contact Molex	
	9.00mm (.354")	Yes	Tape and Reel	71436-1464	71439-0464	
			Tube	71436-1164	71439-0164	
		No	Tape and Reel	71436-1864	71439-0864	
			Tube	71436-1564	Contact Molex	
	10.00mm (.394")	Yes	Tape and Reel	71436-2464	71439-0464	
			Tube	71436-2164	71439-0164	
		No	Tape and Reel	71436-2864	71439-0864	
			Tube	71436-2564	Contact Molex	
	11.00mm (.433")	Yes	Tape and Reel	71436-1464	71439-1464	
			Tube	71436-1164	71439-1164	
		No	Tape and Reel	71436-1864	71439-1864	
			Tube	71436-1564	71439-1564	
	12.00mm (.472")	Yes	Tape and Reel	71436-2464	71439-1464	
			Tube	71436-2164	71439-1164	
		No	Tape and Reel	71436-2864	71439-1864	
			Tube	71436-2564	71439-1564	
	13.00mm (.512")	Yes	Tape and Reel	71436-2464	71439-2464	
			Tube	71436-2164	71439-2164	
		No	Tape and Reel	71436-2864	71439-2864	
			Tube	71436-2564	Contact Molex	
	14.00mm (.551")	Yes	Tape and Reel	71436-1464	71439-3464	
			Tube	71436-1164	71439-3164	
		No	Tape and Reel	71436-1864	71439-3864	
			Tube	71436-1564	71439-3564	
	15.00mm (.591")	Yes	Tape and Reel	71436-2464	71439-3464	
			Tube	71436-2164	71439-3164	
		No	Tape and Reel	71436-2864	71439-3864	
			Tube	71436-2564	71439-3564	

Note: These order numbers are the recommended plug and receptacle combinations for mated stack heights per EIA standard 700 AAAB. Per EIA standard, board stack height measured from facing surfaces of parallel circuit boards includes solder thickness allowance of 0.1mm (.004") per side.

1.00mm (.039") Mezzanine Board-to-Board Plug/Receptacle

71741/71742
Dual Row, SMT Vertical Stacking



Features and Benefits
- Mated heights: 8, 10, 12, 13 and 15mm
- Leaf-style design protects pins
- Low insertion force
- Up to 4 mated pairs can be used
- LCP housing for use with lead-free SMT processing temps

Reference Information
Product Specification: PS-71741-9999
Packaging: Tube or tape and reel
UL File No.: E29179

Electrical
Voltage: 100V
Current: 1.0A
Contact Resistance: 40 milliohms max.

Mechanical
Contact Retention to Housing: 0.4kgf min.
Mating Force: 50g max.
Unmating Force: 25g min.

Physical
Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: 30µ" and 10µ" Gold min.

Circuits	Mated Stack Height	Pegs	Packaging	Order No.		Lead-free
				Plug	Receptacle	
84	8.00mm (.315")	Yes	Tape and Reel	71741-2011	71742-0003* or 71742-0006	Yes
			Tube	Contact Molex	71742-0004	
		No	Tape and Reel	71741-2002	71742-0001* or 71742-0005	
			Tube	Contact Molex	Contact Molex	
	10.00mm (.394")	Yes	Tape and Reel	71741-0002* or 71741-0004	71742-0003* or 71742-0006	
			Tube	71741-0001*	71742-0004	
		No	Tape and Reel	71741-0003	71742-0001* or 71742-0005	
			Tube	Contact Molex	Contact Molex	
	12.00mm (.472")	Yes	Tape and Reel	71741-0002* or 71741-0004	71742-2001* or 71742-2003	
			Tube	71741-0002* or 71741-0004	71742-2002*	
		No	Tape and Reel	Contact Molex	Contact Molex	
			Tube	Contact Molex	Contact Molex	
	13.00mm (.512")	Yes	Tape and Reel	71741-2001	71742-3003	
			Tube	Contact Molex	Contact Molex	
		No	Tape and Reel	71741-2002	71742-3001	
			Tube	Contact Molex	Contact Molex	
	15.00mm (.591")	Yes	Tape and Reel	71741-0002* or 71741-0004	71742-3003	
			Tube	71741-0001*	Contact Molex	
		No	Tape and Reel	71741-0003	71742-3001	
			Tube	Contact Molex	Contact Molex	

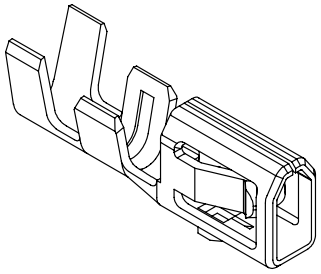
Note: These order numbers are the recommended plug and receptacle combinations for mated stack heights per EIA standard 700 AAAB. Per EIA standard, board stack height measured from facing surfaces of parallel circuit boards includes solder thickness allowance of 0.1mm (.004") per side.

*.25µmm (10µ") Gold plating

1.00mm (.039") Pitch Pico-Clasp™ Wire-to-Board Crimp Terminal

501334

For Single Row Housings



Order No.	Packaging	Lead-free
501334-0000	Reel	Yes
501334-0100	Bag	

Features and Benefits
- Box-shaped design provides 2 points of contact for secure electrical connection

Reference Information
Product Specification: PS-501331-001
Use With: 501330
Designed In: Millimeters

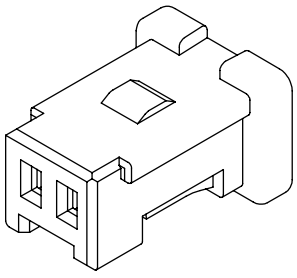
Electrical
Voltage: 50V max.
Current: 1.0A max.

Physical
Contact: Phosphor Bronze
Plating: Tin
Wire Size: 28 to 32 AWG
Insulation Diameter: 0.80mm (.031") max.
Wire Strip Length: 1.00 to 1.30mm (.039 to .051")

1.00mm (.039") Pitch Pico-Clasp™ Wire-to-Board Housing

501330

Single Row Positive and Friction Lock



Features and Benefits
- Inner positive lock provides space savings and latch protection
- Molded guides provide polarization and mating assistance

Reference Information
Product Specification: PS-501331-001
Packaging: Bag
Mates With: 501331
Use With: 501334
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

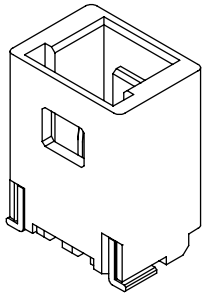
Physical
Housing: Nylon, UL 94V-0

Circuits	Order No.		Lead-free
	Positive Lock	Friction Lock	
2		501330-0200	Yes
3		501330-0300	
4		501330-0400	
5		501330-0500	
6	501330-0600		
7	501330-0700		
8	501330-0800		

Circuits	Order No.		Lead-free
	Positive Lock	Friction Lock	
9	501330-0900		Yes
10	501330-1000		
11	501330-1100		
12	501330-1200		
13	501330-1300		
14	501330-1400		
15	501330-1500		

1.00mm (.039") Pitch Pico-Clasp™ Wire-to-Board Header

501331
SMT, Single Row Positive and Friction Lock



Features and Benefits
- Positive lock on 6-15 circuits; friction lock on 2-5 circuits
- Inner positive lock provides space savings and latch protection
- Molded guides provide polarization and mating assistance

Reference Information
Product Specification: PS-501331-001
Packaging: Embossed tape
Mates With: 501330
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

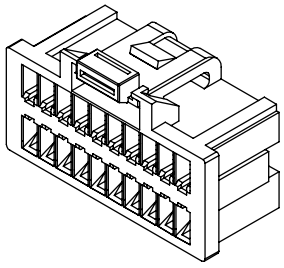
Physical
Housing: Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.		Lead-free
	Positive Lock	Friction Lock	
2		501331-0207	Yes
3		501331-0307	
4		501331-0407	
5		501331-0507	
6	501331-0607		
7	501331-0707		
8	501331-0807		

Circuits	Order No.		Lead-free
	Positive Lock	Friction Lock	
9	501331-0907		Yes
10	501331-1007		
11	501331-1107		
12	501331-1207		
13	501331-1307		
14	501331-1407		
15	501331-1507		

1.00mm (.039") Pitch Pico-Clasp™ Wire-to-Board Housing

501189
Dual Row



Features and Benefits
- Inner positive lock provides space savings and latch protection
- Molded guides provide polarization and mating assistance

Reference Information
Product Specification: PS-501190-001; PS-501190-002
Packaging: Bag
Mates With: 501190
Use With: 501193
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

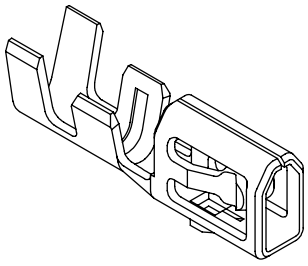
Physical
Housing: Nylon, UL 94V-0

Circuits	Order No.		Lead-free
	Positive Lock	Side Friction Lock	
20	501189-2010	501189-2021	Yes
30	501189-3010	501189-3021	
40	501189-4010	501189-4021	
50	501189-5010	501189-5021	

1.00mm (.039") Pitch Pico-Clasp™ Wire-to-Board Crimp Terminal

501193

For Dual Row Housings



Order No.	Package	Lead-free
501193-2000	Reel	Yes

Features and Benefits

- Box-shaped design provides 2 points of contact for secure electrical connection

Reference Information

Product Specification: PS-501190-001 and PS-501190-002
Packaging: Reel
Use With: 501189
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 1.0A max.

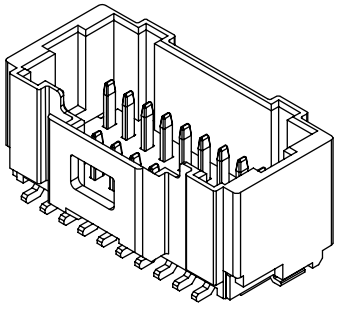
Physical

Contact: Phosphor Bronze
Plating: Gold over Nickel
Wire Size: 28 to 32 AWG
Insulation Diameter: 0.80mm (.031") max.
Wire Strip Length: 1.00 to 1.30mm (.039 to .051")

1.00mm (.039") Pitch Pico-Clasp™ Wire-to-Board Header

501190

Dual Row, SMT



Circuits	Order No.		Lead-free
	With Pick-and-Place Cover Tape	Without Pick-and-Place Cover Tape	
20	501190-2017	501190-2027	Yes
30	501190-3017	501190-3027	
40	501190-4017	501190-4027	
50	501190-5017	501190-5027	

Features and Benefits

- Inner positive lock provides space savings and latch protection
- Molded guides provide polarization and mating assistance

Reference Information

Product Specification: PS-501190-001 and PS-501190-002
Packaging: Embossed tape
Mates With: 501189
Designed In: Millimeters

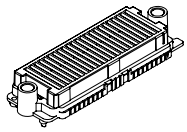
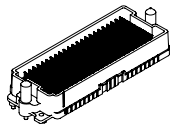
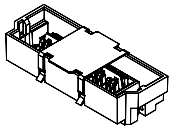
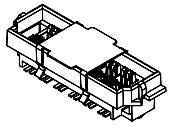
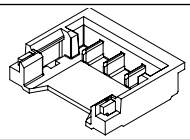
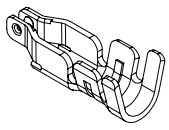
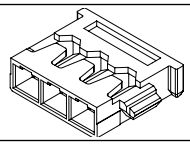
Electrical

Voltage: 50V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

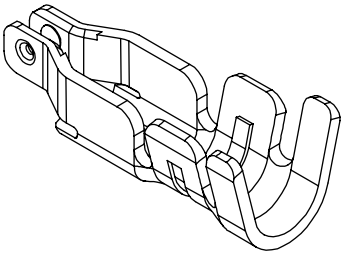
Housing: Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

1.20mm (.047") Pitch

Pitch	Series		Tradename	Description
1.20 x 2.00mm (.047 x .079")	45802		HD Mezz™	Receptacle
	45830			Plug
	75005		Plateau HS Mezz™	Receptacle
	75003			Plug
	78171		Pico-EZ Mate™	Header
	78172			Cramp Terminal
	78172			Housing

1.20mm (.047") Pitch Pico-EZmate™ Wire-to-Board Crimp Terminal

78172



Order No.	Packaging	Lead-free
78172-0410	Reel	Yes

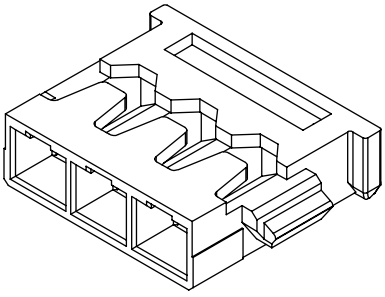
Reference Information
Product Specification: PS-78171-010
Packaging: Reel
Use With: 78172-000X housing
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 1.5A max.

Physical
Contact: Copper Alloy
Plating: Gold over Nickel
Insulation Diameter: 0.60mm dia. max.
Wire Gauge: 28 and 30 AWG

1.20mm (.047") Pitch Pico-EZmate™ Wire-to-Board Housing

78172



Circuits	Order No.	Lead-free
2	78172-0002	Yes
3	78172-0003	
4	78172-0004	
5	78172-0005	

Features and Benefits
- Ultra low profile provides space savings
- Easy vertical mating offers excellent workability in production line
- Multiple mating cycles allows multiple testing cycle
- Assembly suction space on header for stable pick-and-place
- RoHS compliant

Reference Information
Product Specification: PS-78171-010
Packaging: Bag
Mates With: 78171
Use with: 78172-0410 terminal
Designed In: Millimeters

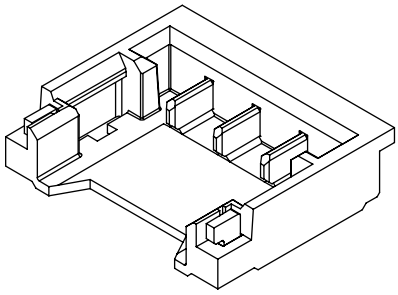
Electrical
Voltage: 50V max.
Current: 1.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: Black LCP, UL 94V-0

1.20mm (.047") Pitch Pico-EZmate™ Wire-to-Board Header

78171

Vertical
1.40mm (.055") Housing Height



Circuits	Order No.	Lead-free
2	78171-0002	Yes
3	78171-0003	
4	78171-0004	
5	78171-0005	

Features and Benefits
- Ultra low profile provides space savings
- Easy vertical mating offers excellent workability in production line
- Multiple mating cycles allows multiple testing cycle
- Assembly suction space on header for stable pick-and-place
- RoHS compliant

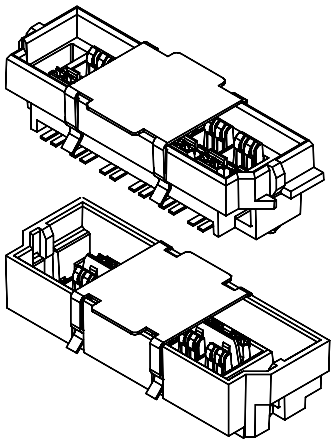
Reference Information
Product Specification: PS-78171-010
Packaging: Embossed tape
Mates With: 78172-000X
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 1.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: Black LCP, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

1.20mm (.047") Pitch Plateau HS Mezz™ High Speed Mezzanine Connectors

75003/75005
Plug, Receptacle



Features and Benefits
- Metal-plated plastic housing provides shielding for very low crosstalk and signal speeds in excess of 10 Gbps
- Insert molded wafers for controlled impedance within plated signal channels
- Multiple stack heights from 10.00 to 25.00mm (.394 to .984") to meet nearly every parallel board to board requirement
- SMT tails for reflow processing and to minimize via effects on signal clarity
- Contacts on 1.20mm (.047") centerline pitch arranged in isolated differential pairs on 3.50mm (.138") pitch for isolated high-speed signaling
- RoHS compliant

Reference Information
Product Specification: PS-75003
Packaging: Tape and Reel or Tube
UL File No.: E29179
CSA File No.: LR19980

Electrical
Voltage: 30V DC
Current: 1.5A max.
Contact Resistance: 25 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1,000 Megohms min.
Impedance: 100 ± 10 ohms at 50psec risetime (differential)

Mechanical
Mating Force: 2.0N (.45lb) max. per circuit
Unmating Force: 0.9N (.20lb) min. per circuit
Durability: 100 cycles

Physical
Housing: Liquid Crystal Polymer
Contact: Copper Alloy
Plating: Contact Area—0.76mm (30µ") Select Gold
Solder Tail Area—Tin
Underplating: 3.81mm (150µ") min. Tin over 1.27mm (50µ") min. Nickel overall

Plug

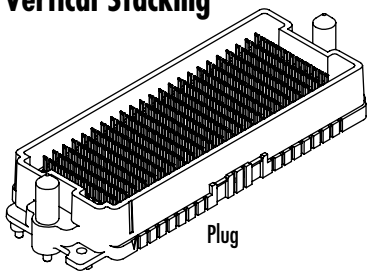
Offset Height	6 Pair	12 Pair	24 Pair	36 Pair	Lead-free
5.5mm (.216")	75003-0305	75003-0005	75003-0105	75003-0205	Yes
8.5mm (.335")	75003-0308	75003-0008	75003-0108	75003-0208	
10.5mm (.413")	75003-0310	75003-0010	75003-0110	75003-0210	

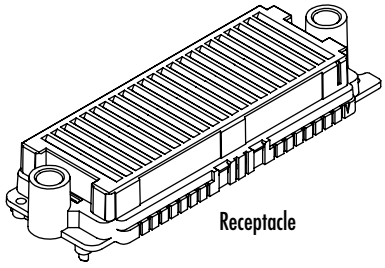
Receptacle

Offset Height	6 Pair	12 Pair	24 Pair	36 Pair	Lead-free
4.5mm (.177")	75005-0304	75005-0004	75005-0104	75005-0204	Yes
6.5mm (.256")	75005-0306	75005-0006	75005-0106	75005-0206	
14.5mm (.571")	75005-0314	75005-0014	75005-0114	75005-0214	

1.20 x 2.00mm (.047 x .079") Pitch HD Mezz™ Board-to-Board Plug and Receptacle

45830/45802
SMT, Pin Field Vertical Stacking


Plug


Receptacle

Features and Benefits
- RoHS Compliant solder charge for SMT
- Dual contact interface points
- Guide pins for gross alignment
- 16mm to 36mm mated heights
- 117 to 403 circuits available

Reference Information
Product Specification: PS-45802-001
Packaging: Tray
Designed In: Millimeters

Electrical
Voltage: 250 VAC per contact
Current: 2.0A per contact
Contact Resistance: 25 milliohms nom.
Dielectric Withstanding Voltage: 500 VDC
Insulation Resistance: 5000 Megohms minimum across wafers, 1000 within

Mechanical
Mating Force: 51g nom. per contact
Unmating Force: 25g nom. per contact
Normal Force: 51g nom. per contact
Durability: 100 cycles

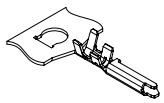
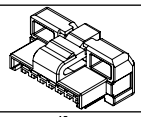
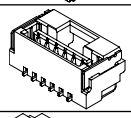
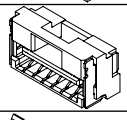
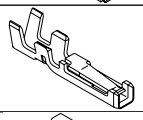
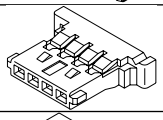
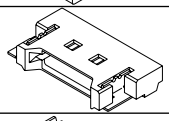
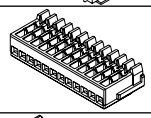
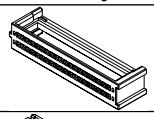
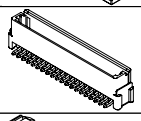
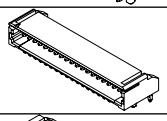
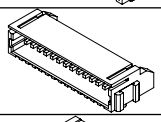
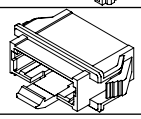
Physical
Housing: Glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.75µm Gold min.
Solder Tail Area—2.50µm Tin min.
Underplating—1.25µm Nickel overall

Circuits	Order No.	Height	Description	Lead-free
143	45802-0311	8.00mm (.315")	Receptacle	Yes
195	45802-0215			
299	45802-0223			
351	45802-0227			
299	45802-2223	10.00mm (.393")		
143	45802-1211	18.00mm (.709")		
299	45802-1223			
325	45802-1225			

Circuits	Order No.	Height	Description	Lead-free
195	45830-0215	8.00mm (.315")	Plug	Yes
299	45830-0223			
351	45830-0227			
299	45830-3223	9.00mm (.355")		
143	45830-2211	10.00mm (.393")		
299	45830-2223			
325	45830-2225			
143	45830-1211	18.00mm (.709")		

Notes:
1) Plug and receptacle heights should be added together to obtain mated stack heights
2) Please contact Molex for other circuit sizes and mated stack heights
3) Please contact Molex for HD Mezz™ parts with Tin/Lead solder charges

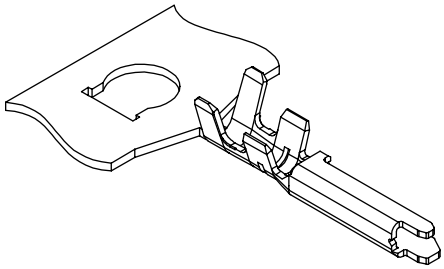
1.25mm (.049") Pitch

Pitch	Series		Tradename	Description	Unmated Height
1.25mm (.049")	502381		CLIK-Mate™	Crimp Terminal	
	502380			Housing	
	502382			Receptacle	
	502386			Receptacle	
	50641		PanelMate™	Female Crimp Terminal	
	51146			Housing	Ultra Low
	53780			Header	1.90mm (.075")
	54596		Mini Mi II™	IDT Receptacle	
	54597			Clip	
	55450			Header	6.75mm (.266")
	55454			Header	
	55456			Header	4.50mm (.177")
	55482			Adapter	

1.25mm (.049") Pitch CLIK-Mate™ Wire-to-Board Crimp Terminal

502381

For Single Row Housings



Order No.	Lead-free
502381-0000	Yes

Reference Information
Product Specification: PS-502382-001
Packaging: Reel
Use With: 502380 housing
Designed In: Millimeters

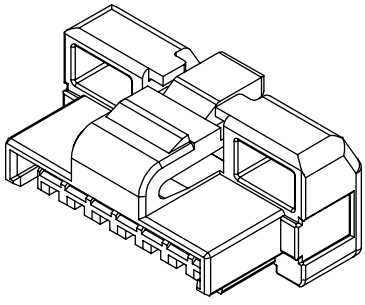
Electrical
Voltage: 50V max.
Current: 1.0A max.

Physical
Contact: Copper Alloy
Plating: Tin over Nickel
Insulation Diameter: 1.0mm dia. max.
Strip Length: 1.50 to 1.70 mm
Wire Gauge: 26 to 28 AWG

1.25mm (.049") Pitch CLIK-Mate™ Wire-to-Board Housing

502380

Single Row Positive Lock



Features and Benefits
- Sizes 2 to 15 circuits
- Audible "click," low insertion force and secure mating
- Tuning fork style contact design secures contact and avoids terminal stubbing

Reference Information
Product Specification: PS-502382-001
Packaging: Bag
Mates With: 502382, 502386
Use With: 502381 terminal
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: White PBT, UL 94V-0

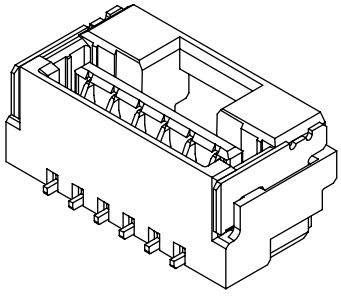
Circuits	Order No.	Lead-free
2	502380-0200	Yes
3	502380-0300	
4	502380-0400	
5	502380-0500	
6	502380-0600	
7	502380-0700	
8	502380-0800	

Circuits	Order No.	Lead-free
9	502380-0900	Yes
10	502380-1000	
11	502380-1100	
12	502380-1200	
13	502380-1300	
14	502380-1400	
15	502380-1500	

Note: 2-7 circuits has single lock (shown above) and 8-15 circuits has dual locks. See drawings for details.

1.25mm (.049") Pitch CLIK-Mate™ Wire-to-Board PCB Receptacle

502382
Single Row Vertical



Features and Benefits
- Sizes 2 to 15 circuits
- Audible "click," low insertion force and secure mating
- Tuning fork style contact design secures contact and avoids terminal stubbing
- Reinforced metal solder tabs enable housing wall support and secure PCB retention
- Flat area for pick-and-place is provided

Reference Information
Product Specification: PS-502382-001
Packaging: Embossed tape
Mates With: 502380
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: Heatproof resin, UL 94V-0
Contact: Copper Alloy
Plating: Tin over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

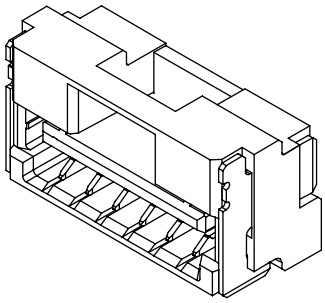
Circuits	Order No.	Lead-free
2	502382-0270	Yes
3	502382-0370	
4	502382-0470	
5	502382-0570	
6	502382-0670	
7	502382-0770	
8	502382-0870	

Circuits	Order No.	Lead-free
9	502382-0970	Yes
10	502382-1070	
11	502382-1170	
12	502382-1270	
13	502382-1370	
14	502382-1470	
15	502382-1570	

Note: 2-7 circuits has single lock (shown above) and 8-15 circuits has dual locks. See drawings for details.

1.25mm (.049") Pitch CLIK-Mate™ Wire-to-Board PCB Receptacle

502386
Single Row Right Angle



Features and Benefits
- Sizes 2 to 15 circuits
- Audible "click," low insertion force and secure mating
- Tuning fork style contact design secures contact and avoids terminal stubbing
- Reinforced metal solder tabs enable housing wall support and secure PCB retention
- Flat area for pick-and-place is provided

Reference Information
Product Specification: PS-502382-001
Packaging: Embossed tape
Mates With: 502380
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: Heatproof resin, UL 94V-0
Contact: Copper Alloy
Plating: Tin over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

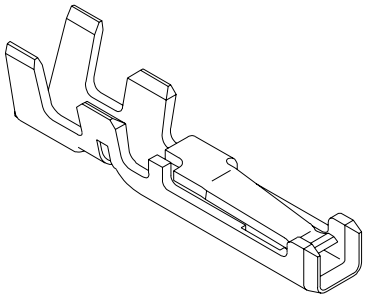
Circuits	Order No.	Lead-free
2	502386-0270	Yes
3	502386-0370	
4	502386-0470	
5	502386-0570	
6	502386-0670	
7	502386-0770	
8	502386-0870	

Circuits	Order No.	Lead-free
9	502386-0970	Yes
10	502386-1070	
11	502386-1170	
12	502386-1270	
13	502386-1370	
14	502386-1470	
15	502386-1570	

Note: 2-7 circuits has single lock (shown above) and 8-15 circuits has dual locks. See drawings for details.

1.25mm (.049") Pitch PanelMate™ Wire-To-Board Crimp Terminal

50641



Features and Benefits
- Box-style contact design provides protection and secure mating force
- Locking tang latches into housing window

Reference Information
Use With: 51146
Designed In: Millimeters

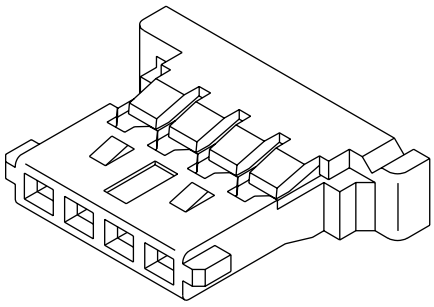
Electrical
Voltage: 125V max.
Current: 1.0A max.

Physical
Contact: Phosphor Bronze
Plating: Gold over Nickel
Wire Range: 28 to 30 AWG
Insulation Diameter: 0.50 to 0.90mm (.020 to .035") max.
Strip Length: 1.3 to 1.7mm

Order No.	Packaging	Lead-free
50641-8041	Reel	Yes
50641-8141	Bag	

1.25mm (.049") Pitch PanelMate™ Wire-to-Board Housing

51146
Ultra Low Profile



Features and Benefits
- Sizes 2 to 20 circuits
- Very thin design (1.80mm)
- Housing lance provides extra terminal retention
- Friction lock provides secure mating
- Polarized design

Reference Information
Product Specification: PS-51146-010
Packaging: Bag
Use With: 50641 terminal
Mates With: 53780
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: PBTP, UL 94V-0

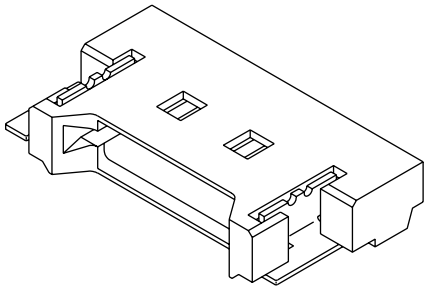
Circuits	Order No.
2	51146-0200
3	51146-0300
4	51146-0400
5	51146-0500
6	51146-0600
7	51146-0700
8	51146-0800

Circuits	Order No.
9	51146-0900
12	51146-1200
14	51146-1400
15	51146-1500
18	51146-1800
20	51146-2000

1.25mm (.049") Pitch PanelMate™ Wire-to-Board Header

53780

Right Angle, SMT 1.90mm (.075") Profile



Features and Benefits

- Sizes 2 to 20 circuits
- Ultra low mating profile of 1.90mm (.075")
- Durable blade-type pins protect againt damage during mating
- Metal solder tabs provide PCB retention and strain relief for SMT tails
- Solder-conducing fillet SMT tail design helps ensure stable solder joints
- Fully-shrouded anti-flux wicking design protects contacts during soldering and cleaning processes

Reference Information

Product Specification: PS-51146-010
Packaging: Embossed tape
Mates With: 51146
Designed In: Millimeters

Electrical

Voltage: 125V max.
Current: 1.0A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.	Lead-free
2	53780-0270	Yes
3	53780-0370	
4	53780-0470	
5	53780-0570	
6	53780-0670	
7	53780-0770	
8	53780-0870	

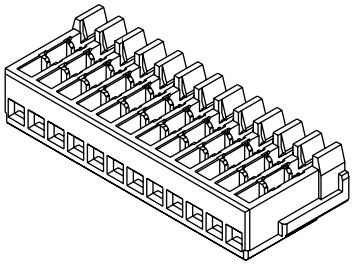
Circuits	Order No.	Lead-free
9	53780-0970	Yes
12	53780-1270	
14	53780-1470	
15	53780-1570	
18	53780-1870	
20	53780-2070	

www.molex.com/product/micro/pnlmate.html

1.25mm (.049") Pitch Mini Mi II™ System Wire-to-Board Receptacle

54596

Single Row IDT



Features and Benefits

- Sizes 2 to 20 circuits
- IDT provides secure and cost-effective termination
- Contact design protects header pins during mating/unmating
- Housing length designed for easy handling
- IDT guide slots facilitate wire placement
- Side ribs provide polarization and locking to clip

Reference Information

Packaging: Bag
Mates With: 55450, 55454, 55456, 55482, 55447
Use With: 54597 clip for dual-row applications
Designed In: Millimeters

Electrical

Voltage: 100V max.
Current: 1.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical

Housing: Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 26 to 28 AWG
Insulation Range: 0.80 to 0.90mm (.031 to .035") dia.

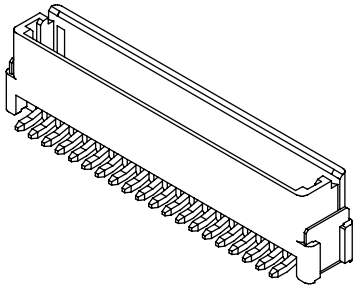
Circuits	Order No.	Lead-free
2	54596-0210	Yes
3	54596-0310	
4	54596-0410	
5	54596-0510	
6	54596-0610	
7	54596-0710	
8	54596-0810	

Circuits	Order No.	Lead-free
9	54596-0910	Yes
10	54596-1010	
11	54596-1110	
12	54596-1210	
13	54596-1310	
14	54596-1410	
15	54596-1510	

Circuits	Order No.	Lead-free
16	54596-1610	Yes
17	54596-1710	
18	54596-1810	
19	54596-1910	
20	54596-2010	

1.25mm (.049") Pitch Mini Mi II™ Wire-to-Board Header

55450
SMT, Single Row Vertical



Features and Benefits
- Sizes 2 to 20 circuits
- Friction lock provides secure mating
- Polarized inner walls provide correct mating orientation

Reference Information
Product Specification: PS-54596-022
Packaging: Embossed tape
Mates With: 54596
Designed In: Millimeters

Electrical
Voltage: 100V max.
Current: 1.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

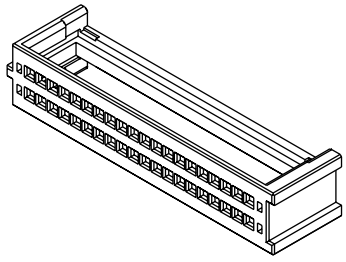
Physical
Housing: Nylon, UL 94V-0
Contact: Brass
Plating: Tin
Fitting Nail: Brass, Tin plating

Circuits	Order No.	Lead-free
2	55450-0269	Yes
3	55450-0369	
5	55450-0569	
6	55450-0669	
7	55450-0769	
8	55450-0869	
10	55450-1069	
11	55450-1169	

Circuits	Order No.	Lead-free
12	55450-1269	Yes
13	55450-1369	
14	55450-1469	
15	55450-1569	
16	55450-1669	
18	55450-1869	
20	55450-2069	

1.25mm (.049") Pitch Mini Mi II™ System Clip

54597
Dual Row



Features and Benefits
- Sizes 10 to 40 circuits
- Joins two single row receptacles (54596)
- Polarized to ensure correct mating orientation
- Locking feature ensures secure receptacle retention

Reference Information
Product Specification: PS-55659-005, PS-54596-007
Packaging: Bag
Mates With: 55659, 55451
Use With: 54596
Designed In: Millimeters

Physical
Housing: Nylon, UL 94V-0

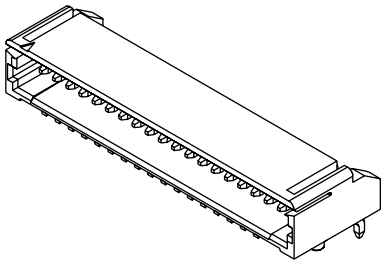
Circuits	Order No.	Lead-free
10	54597-1000	Yes
12	54597-1200	
14	54597-1400	
16	54597-1600	
18	54597-1800	
20	54597-2000	

Circuits	Order No.	Lead-free
22	54597-2200	Yes
24	54597-2400	
26	54597-2600	
28	54597-2800	
30	54597-3000	
32	54597-3200	

Circuits	Order No.	Lead-free
34	54597-3400	Yes
36	54597-3600	
38	54597-3800	
40	54597-4000	

1.25mm (.049") Pitch Mini Mi II™ System Wire-to-Board Header

55454
Single Row Right Angle



Features and Benefits
- Sizes 2 to 20 circuits
- Friction lock provides secure mating
- Kinked outer tails for additional PCB retention
- Polarized inner side-walls ensure correct mating orientation
- Extended outer side-walls protect solder tails
- Polarizing pegs assist board placement

Reference Information
Product Specification: PS-54596-018
Packaging: Tray
Mates With: 54596
Designed In: Millimeters

Electrical
Voltage: 100V max.
Current: 1.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0
Contact: Brass
Plating: Tin

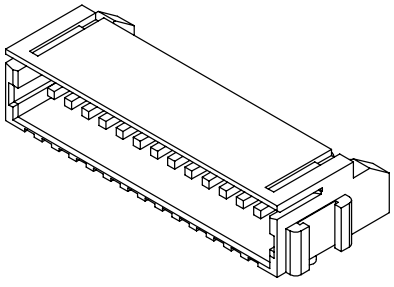
Circuits	Order No.	Lead-free
2	55454-0270	Yes
3	55454-0370	
4	55454-0470	
5	55454-0570	
6	55454-0670	
7	55454-0770	
8	55454-0870	

Circuits	Order No.	Lead-free
9	55454-0970	Yes
10	55454-1070	
11	55454-1170	
12	55454-1270	
13	55454-1370	
14	55454-1470	
15	55454-1570	

Circuits	Order No.	Lead-free
16	55454-1670	Yes
17	55454-1770	
18	55454-1870	
19	55454-1970	
20	55454-2070	

1.25mm (.049") Pitch Mini Mi II™ Wire-to-Board Header

55456
SMT, Single Row, Right Angle



Features and Benefits
- Sizes 4 to 20 circuits
- Polarizing pegs assist board placement

Reference Information
Product Specification: PS-54596-022
Packaging: Embossed tape
Mates With: 54596
Designed In: Millimeters

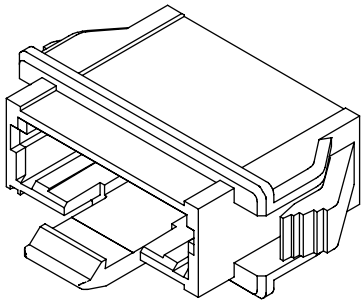
Electrical
Voltage: 100V max.
Current: 1.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0
Contact: Brass
Plating: Tin
Fitting Nail: Brass, Tin plating

Circuits	Order No.		Lead-free
	With Pegs	Without Pegs	
2		55456-0269	Yes
4	55456-0459	55456-0469	
5	55456-0559	55456-0569	
7	55456-0759	55456-0769	
11	55456-1159	55456-1169	
12		55456-1269	
13	55456-1359	55456-1369	
16	55456-1659	55456-1669	
18	55456-1859	55456-1869	
20	55456-2059	55456-2069	

1.25mm (.049") Pitch Mini Mi II™ Wire-to-Wire Adapter

55482
Single Row



Features and Benefits
- Provides panel-mount method of linking harnesses
- Mounting ears provide good spring characteristics and strong panel retention

Reference Information
Product Specification: PS-55482-006
Packaging: Bag
Use With: 54596
Designed In: Millimeters

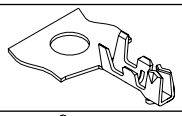
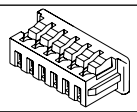
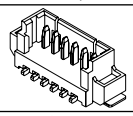
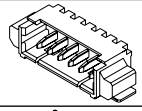
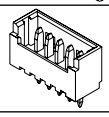
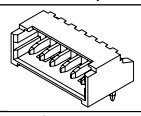
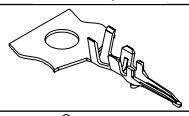
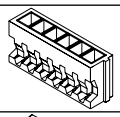
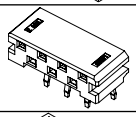
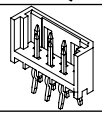
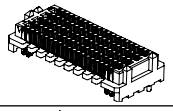
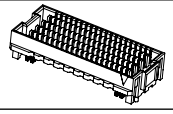
Electrical
Voltage: 100V max.
Current: 1.5A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
2	55482-0219	Yes
3	55482-0319	
4	55482-0419	
5	55482-0519	
6	55482-0619	
7	55482-0719	
8	55482-0819	
9	55482-0919	
10	55482-1019	
11	55482-1119	

Circuits	Order No.	Lead-free
12	55482-1219	Yes
13	55482-1319	
14	55482-1419	
15	55482-1519	
16	55482-1619	
17	55482-1719	
18	55482-1819	
19	55482-1919	
20	55482-2019	

1.25mm (.049") Pitch

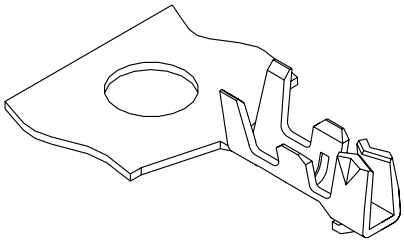
Pitch	Series		Trade Name	Description
1.25mm (.049")	50079/50058		PicoBlade™	Female Crimp Terminal
	51021			Housing
	53398			Header
	53261			Header
	53047			Header
	53048			Header
	50061/50080		Board-In	Crimp Terminal
	51022			Housing
	87871		ZigZag	Receptacle
	87872			Header
1.27 x 1.27mm (.050 x .050")	45970		Searay*	Plug
	45971			Receptacle

*SEARAY is a trademark of Samtec, Inc.

1.25mm (.049") Pitch PicoBlade™ Wire-to-Board and Wire-to-Wire Crimp Terminal

50079/50058

Female



Features and Benefits

- Locking tang for secure housing retention

Reference Information

Use With: 51021
Designed In: Millimeters

Electrical

Voltage: 125V max.
Current: 1.0A max.

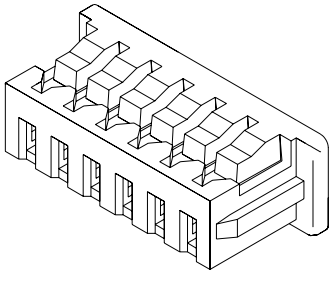
Physical

Contact: Phosphor Bronze
Plating: Tin
Insulation Range: 50058—1.00mm dia. max.
50079—1.04mm dia. max.
Strip Length: 1.40 to 1.90mm

Order No.	Wire Range AWG	Packaging	Lead-free
50079-8000	26 - 28	Reel	Yes
50058-8000	28 - 32		
50079-8100	26 - 28	Bag	
50058-8100	28 - 32		

1.25mm (.049") Pitch PicoBlade™ Wire-to-Wire and Wire-to-Board Receptacle

51021



Features and Benefits

- Sizes 2 to 15 circuits
- Housing lance provides extra terminal retention
- Friction locks provide secure mating

Reference Information

Product Specification: Refer to Mates With items
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Use With: 50079/50058
Mates With: 53398, 53261, 53047, 53048
Designed In: Millimeters

Electrical

Voltage: 125V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

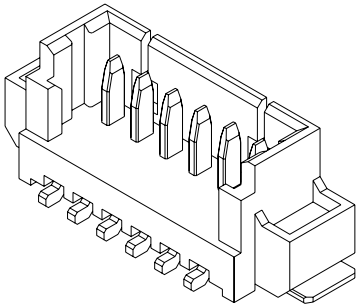
Housing: PBTP, UL 94V-0

Circuits	Order No.
2	51021-0200
3	51021-0300
4	51021-0400
5	51021-0500
6	51021-0600
7	51021-0700
8	51021-0800

Circuits	Order No.
9	51021-0900
10	51021-1000
11	51021-1100
12	51021-1200
13	51021-1300
14	51021-1400
15	51021-1500

1.25mm (.049") Pitch PicoBlade™ Wire-to-Board Header

53398
Vertical, SMT



Features and Benefits
- Sizes 2 to 15 circuits
- Locking windows provide secure mating
- Fitting nails provide PCB hold-down and strain relief for SMT tails

Reference Information
Product Specification: PS-51021-024
Packaging: Embossed tape
Mates With: 51021
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin over Nickel
Fitting Nails: Phosphor Bronze, Tin over Nickel plating

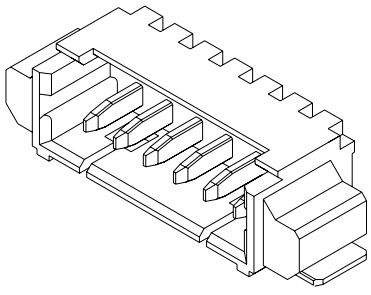
Circuits	Order No.	Lead-free
2	53398-0271	Yes
3	53398-0371	
4	53398-0471	
5	53398-0571	
6	53398-0671	
7	53398-0771	
8	53398-0871	

Circuits	Order No.	Lead-free
9	53398-0971	Yes
10	53398-1071	
11	53398-1171	
12	53398-1271	
13	53398-1371	
14	53398-1471	
15	53398-1571	

Note: 53398-XX84 is available with High-Barrier (moisture protection) packaging.

1.25mm (.049") Pitch PicoBlade™ Wire-to-Board Header

53261
Right Angle, SMT



Features and Benefits
- Sizes 2 to 15 circuits
- Locking windows provide secure mating
- Metal solder tabs provide PCB hold-down and strain relief for SMT tails

Reference Information
Product Specification: PS-51021-024
Packaging: Embossed tape
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51021
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

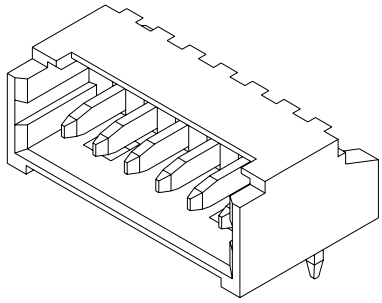
Physical
Housing: Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin over Nickel
Fitting Nails: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.	Lead-free
2	53261-0271	Yes
3	53261-0371	
4	53261-0471	
5	53261-0571	
6	53261-0671	
7	53261-0771	
8	53261-0871	

Circuits	Order No.	Lead-free
9	53261-0971	Yes
10	53261-1071	
11	53261-1171	
12	53261-1271	
14	53261-1471	
15	53261-1571	

1.25mm (.049") Pitch PicoBlade™ Wire-to-Board Header

53048
Right Angle



Features and Benefits
- Sizes 2 to 15 circuits
- Locking windows provide secure mating

Reference Information
Product Specification: PS-51021-010
Packaging: Tray
Mates With: 51021
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

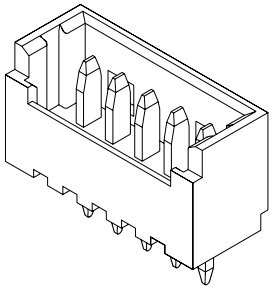
Physical
Housing: Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin

Circuits	Order No.	Lead-free
2	53048-0210	Yes
3	53048-0310	
4	53048-0410	
5	53048-0510	
6	53048-0610	
7	53048-0710	
8	53048-0810	

Circuits	Order No.	Lead-free
9	53048-0910	Yes
10	53048-1010	
11	53048-1110	
12	53048-1210	
13	53048-1310	
14	53048-1410	
15	53048-1510	

1.25mm (.049") Pitch PicoBlade™ Wire-to-Board Header

53047
Vertical



Features and Benefits
- Sizes 2 to 15 circuits
- Locking windows provide secure mating

Reference Information
Product Specification: PS-51021-010
Packaging: Tray
Mates With: 51021
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

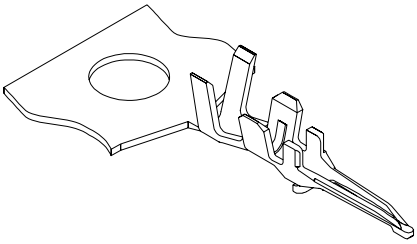
Physical
Housing: Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin

Circuits	Order No.	Lead-free
2	53047-0210	Yes
3	53047-0310	
4	53047-0410	
5	53047-0510	
6	53047-0610	
7	53047-0710	
8	53047-0810	

Circuits	Order No.	Lead-free
9	53047-0910	Yes
10	53047-1010	
11	53047-1110	
12	53047-1210	
13	53047-1310	
14	53047-1410	
15	53047-1510	

1.25mm (.049") Pitch Board-In Connector Crimp Terminal

50061/50080



Features and Benefits
- Locking tang secures terminal to housing

Reference Information
Use With: 51022
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current: 1.0A max.

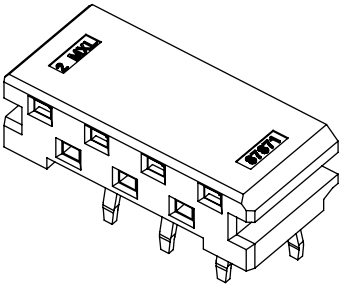
Physical
Contact: Phosphor Bronze
Plating: Tin
Insulation Range: 1.00mm dia. max.
Strip Length: 1.40 to 1.90mm

Order No.	Wire Range AWG	Packaging	Lead-free
50061-8000	28-32	Reel	Yes
50080-8000	26-28		
50061-8100	28-32	Bag	
50080-8100	26-28		

www.molex.com/product/board_in.html

1.25mm (.049") Pitch Board-to-Board ZIGZAG Receptacle

87871
With Friction Lock



Features and Benefits
- Sizes 3 to 23 circuits
- Kinked solder tails provide retention to the PCB
- Polarization to ensure proper mating
- Friction lock provides passive lock to mating connector
- Tape and reel packaging options available

Reference Information
Product Specification: PS-87871-006
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 87872
Designed In: Millimeters

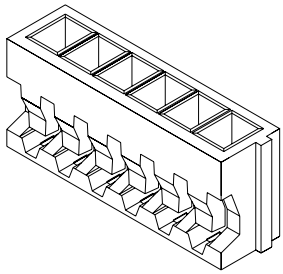
Electrical
Voltage: 125V
Current: 2.0A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC / 1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Glass-filled nylon, UL94V-0
Contact: Phosphor Bronze
Plating: Tin
PCB Thickness: 1.60mm

Circuits	Order No.	Lead-free
3	87871-2203	Yes
5	87871-2205	
7	87871-2207	
9	87871-2209	
11	87871-2211	
13	87871-2213	
15	87871-2215	
17	87871-2217	
19	87871-2219	
21	87871-2221	
23	87871-2223	

1.25mm (.049") Pitch Board-In Connector Housing

51022



Circuits	Order No.
2	51022-0200
3	51022-0300
4	51022-0400
5	51022-0500
6	51022-0600

Features and Benefits
- Sizes 2 to 6 circuits
- Low profile of 3.50mm (.138")
- Locking window secures terminal to housing

Reference Information
Product Specification: PS-51022-001
Packaging: Bag
Use With: 50061/50080
Designed In: Millimeters

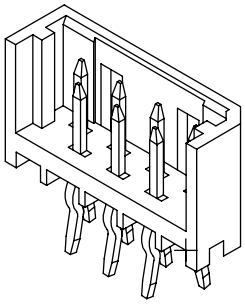
Electrical
Voltage: 125V max.
Current: 1.0A max.
Contact Resistance: 5 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: Polyester, UL 94V-0

www.molex.com/product/board_in.html

1.25mm (.049") Pitch Board-to-Board ZIGZAG Header

87872
With Friction Lock



Circuits	Order No.	Lead-free
3	87872-1103	Yes
5	87872-1105	
7	87872-1107	
9	87872-1109	
11	87872-1111	
13	87872-1113	
15	87872-1115	
17	87872-1117	
19	87872-1119	
21	87872-1121	
23	87872-1123	

Features and Benefits
- Sizes 3 to 23 circuits
- Kinked solder tails provide retention to the PCB
- Polarization to ensure proper mating
- Friction lock provides passive lock to mating connector

Reference Information
Product Specification: PS-87871-006
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
TUV File No.:
Mates With: 87871
Designed In: Millimeters

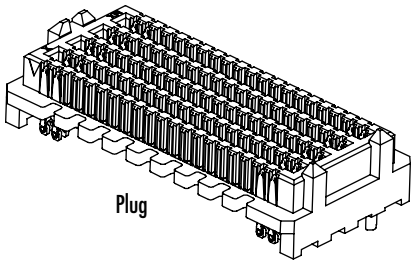
Electrical
Voltage: 125V
Current: 2.0A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC / 1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Glass-filled nylon, UL94V-0
Contact: Brass
Plating: Tin
PCB Thickness: 1.60mm

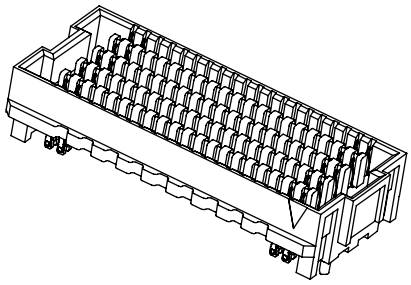
1.27 x 1.27mm (.050 x .050") Pitch SEARAY* Board-to-Board Plug and Receptacle

45970/45971

SMT, Pin Field Vertical Stacking



Plug



Receptacle

Features and Benefits

- RoHS Compliant solder charge for SMT
- Recessed contacts prevent stubbing
- Guide beams for gross alignment
- 7.00 to 13.00mm (.276 to .512") mated heights
- 100 to 500 circuits available

Reference Information

Product Specification: PS-45970-001
Packaging: Tray
Designed In: Inches

Electrical

Voltage: 250V AC
Current: 1.0A
Contact Resistance: 25 milliohms nom.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 5000 Megohoms min.

Mechanical

Mating Force: 50g max.
Unmating Force: 30g max.
Normal Force: 82g max.
Durability: 100 cycles

Physical

Housing: Glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.75µm Gold min.
Solder Tail Area—3.80µm Tin min.
Underplating—1.25µm Nickel min. overall

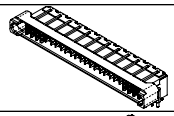
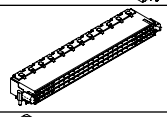
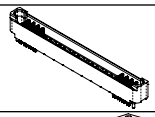
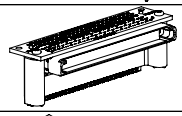
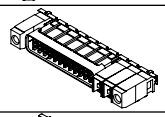
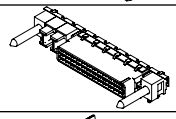
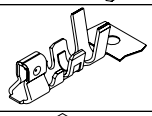
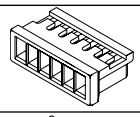
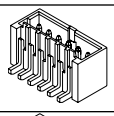
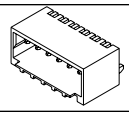
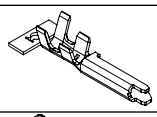
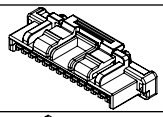
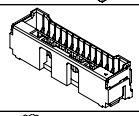
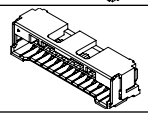
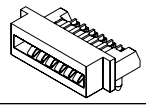
Circuits	Order No.	Description	Lead-free
114	45970-9111	Plug	Yes
200	45970-2311		
400	45970-4111		
	45970-4311		

Circuits	Order No.	Description	Lead-free
114	45971-9111	Receptacle	Yes
200	45971-2311		
400	45971-4111		
	45971-4411		

Notes:
1) Refer to the product sales drawing for mated stack height options
2) Please contact Molex for other circuit sizes, mated stack heights and no peg options
3) Please contact Molex for SEARAY parts with Tin/Lead solder charges

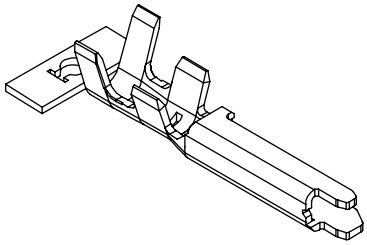
*SEARAY is a trademark of Samtec, Inc.

1.50mm (.059")–1.60mm (.062") Pitch

Pitch	Series		Tradename	Description
1.50mm (.059")	75018		Plateau HS Dock™	Plug
	75019			Receptacle
	75140			Plug
	75126			Interposer Plug
	75475		Plateau HS Dock™ PG	Plug
	75476			Receptacle
	87421		Pico-SPOX™	Female Crimp Terminal
	87439			Housing
	87437			Header
	87438			Header
	502579		CLIK-Mate™	Crimp Terminal
	502578			Housing
	502584			Receptacle
	502585			Receptacle
1.60mm (.062")	52712			Receptacle

1.50mm (.059") Pitch CLIK-Mate™ Wire-to-Board Crimp Terminal

502579



Reference Information
Product Specification: PS-502584-001
Packaging: Reel
Use With: 502578 housing
Designed In: Millimeters

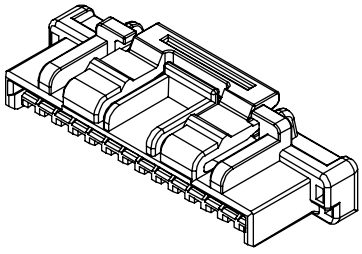
Electrical
Voltage: 100V max.
Current: 2.0A max.

Physical
Contact: Copper Alloy
Plating: Tin over Nickel
Insulation Diameter: 1.20mm dia. max.
Strip Length: 1.50 to 1.90mm
Wire Gauge: 24 to 28 AWG

Order No.	Packaging	Lead-free
502579-0000	Reel	Yes

1.50mm (.059") Pitch CLIK-Mate™ Wire-to-Board Housing

502578
Single Row Positive Lock



Features and Benefits
- Sizes 2 to 15 circuits
- Audible "click," low insertion force and secure mating
- Tuning fork style contact design secures contact and avoids terminal stubbing

Reference Information
Product Specification: PS-502584-001
Packaging: Bag
Mates With: 502584, 502585
Use With: 502579 terminal
Designed In: Millimeters

Electrical
Voltage: 100V max.
Current: 2.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 Megohms min.

Physical
Housing: PBT, UL 94V-0

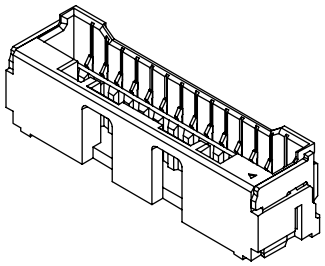
Circuits	Order No.	Lead-free
2	502578-0200	Yes
3	502578-0300	
4	502578-0400	
5	502578-0500	
6	502578-0600	
7	502578-0700	
8	502578-0800	

Circuits	Order No.	Lead-free
9	502578-0900	Yes
10	502578-1000	
11	502578-1100	
12	502578-1200	
13	502578-1300	
14	502578-1400	
15	502578-1500	

Note: 2-5 circuits has single lock and 6-15 circuits has dual locks. See drawings for details.

1.50mm (.059") Pitch CLIK-Mate™ Wire-to-Board PCB Receptacle

502584
Single Row Vertical



Features and Benefits
- Sizes 2 to 15 circuits
- Audible "click," low insertion force and secure mating
- Tuning fork style contact design secures contact and avoids terminal stubbing
- Reinforced metal solder tabs enable housing wall support and secure PCB retention

Reference Information
Product Specification: PS-502584-001
Packaging: Embossed tape
Mates With: 502578
Designed In: Millimeters

Electrical
Voltage: 100V max.
Current: 2.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 Megohms min.

Physical
Housing: Heatproof resin, UL 94V-0
Contact: Copper Alloy
Plating: Tin over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

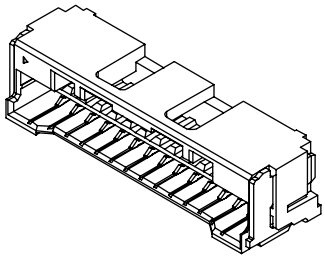
Circuits	Order No.	Lead-free
2	502584-0270	Yes
3	502584-0370	
4	502584-0470	
5	502584-0570	
6	502584-0670	
7	502584-0770	
8	502584-0870	

Circuits	Order No.	Lead-free
9	502584-0970	Yes
10	502584-1070	
11	502584-1170	
12	502584-1270	
13	502584-1370	
14	502584-1470	
15	502584-1570	

Note: 2-5 circuits has single lock and 6-15 circuits has dual locks. See drawings for details.

1.50mm (.059") Pitch CLIK-Mate™ Wire-to-Board PCB Receptacle

502585
Single Row Right Angle



Features and Benefits
- Sizes 2 to 15 circuits
- Audible "click," low insertion force and secure mating
- Tuning fork style contact design secures contact and avoids terminal stubbing
- Reinforced metal solder tabs enable housing wall support and secure PCB retention
- Flat area for pick-and-place is provided

Reference Information
Product Specification: PS-502584-001
Packaging: Embossed tape
Mates With: 502578
Designed In: Millimeters

Electrical
Voltage: 100V max.
Current: 2.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 Megohms min.

Physical
Housing: Heatproof resin, UL 94V-0
Contact: Copper Alloy
Plating: Tin over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

Circuits	Order No.	Lead-free
2	502585-0270	Yes
3	502585-0370	
4	502585-0470	
5	502585-0570	
6	502585-0670	
7	502585-0770	
8	502585-0870	

Circuits	Order No.	Lead-free
9	502585-0970	Yes
10	502585-1070	
11	502585-1170	
12	502585-1270	
13	502585-1370	
14	502585-1470	
15	502585-1570	

Note: 2-5 circuits has single lock and 6-15 circuits has dual locks. See drawings for details.

1.50mm (.059") Pitch Plateau HS Dock™ High Speed Docking Connectors

75018/75019/75140

Right Angle Plug
Right Angle Receptacle
Vertical Plug

Features and Benefits

- Metal-plated plastic housing provides shielding for very low crosstalk and supports signal speeds in excess of 10 Gbps
- Insert molded wafers for controlled impedance within plated signal channels
- Various offset heights (from top of PCB) provide application design flexibility
- Four levels of mating and guide features support hot pluggable applications, ensure proper mating and provide first-mate/last-break
- RoHS Level 5 compliant

Reference Information

Product Specification: PS-75018-001
Packaging: Tray
UL File No.: E29179
CSA File No.: 1373502
Designed In: Millimeters

Electrical

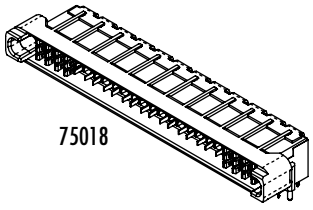
Voltage: 12V DC
Current: 2.75A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1,000 Megohms min.

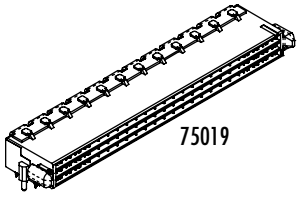
Mechanical

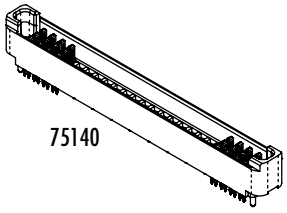
Insertion Force to PCB: 35N max. per compliant pin
Retention Force to PCB: 9N max. per compliant pin
Mating Force: 80N max.
Unmating Force: 20N min.
Durability: 100 cycles

Physical

Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area— 30µ" min. Select Gold
Tail Area—Tin/Lead
Underplating: Nickel
PCB Thickness: 1.80mm (.071")







Right Angle Plug

Circuits	Order No.	Centerline Height	Height	Length	Lead-free
144	75018-0021	4.74 (.187)	9.78 (.385)	96.50 (3.799)	RoHS compliant by exemption
	75018-0022	5.74 (.226)	10.78 (.424)		
	75018-0023	8.74 (.334)	13.78 (.543)		
108	75018-0024	4.74 (.187)	9.78 (.385)	75.50 (2.972)	
	75018-0025	8.74 (.334)	13.78 (.543)		
120	75018-0026	4.74 (.187)	9.78 (.385)	82.50 (3.248)	
108	75018-0027	5.74 (.226)	10.78 (.424)	75.50 (2.972)	
120	75018-0029			82.50 (3.248)	

Right Angle Receptacle

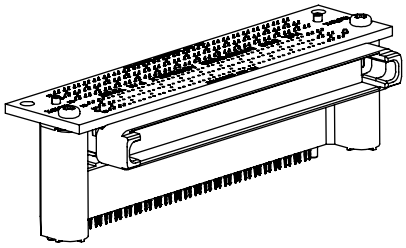
Circuits	Order No.	Centerline Height	Height	Length	Lead-free
108	75019-0013	4.74 (.187)	9.98 (.393)	72.50 (2.854)	RoHS compliant by exemption
120	75019-0014			79.50 (3.130)	
144	75019-0015			93.50 (3.681)	
	75019-0016	6.09 (.240)	11.33 (.446)		
108	75019-0017			72.50 (2.854)	

Vertical Plug

Circuits	Order No.	Centerline Height	Height	Length	Lead-free
144	75140-0012	N / A	10.07 (.396)	96.50 (3.799)	RoHS compliant by exemption

1.50mm (.059") Pitch Plateau HS Dock™ High Speed Docking Connectors Interposer Plug

75126
Elevated, Right Angle



Features and Benefits
- Plateau HS Dock plug raised to stack above a standard, right angle plug on the PCB
- Metal-plated plastic housing provides shielding for very low crosstalk and supports signal speeds in excess of 10 Gbps
- Insert molded wafers for controlled impedance within plated signal channels
- Four levels of mating and guide features support hot pluggable applications, ensure proper mating and provide first-mate/last-break
- RoHS Level 5 compliant

Reference Information
Product Specification: PS-75018-001
Packaging: Tray
UL File No.: E29179
CSA File No.: 1373502
Designed In: Millimeters

Electrical
Voltage: 12V DC
Current: 2.75A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1,000 Megohms min.

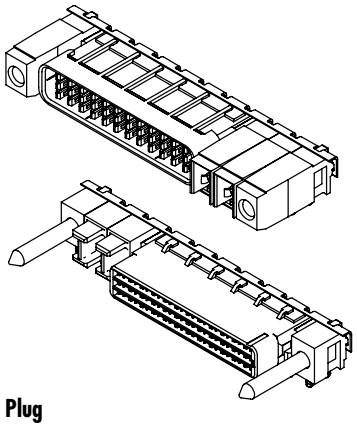
Mechanical
Insertion Force to PCB: 35N max. per compliant pin
Retention Force to PCB: 9N max. per compliant pin
Mating Force: 80N max.
Unmating Force: 20N min.
Durability: 100 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—30µ" min. Select Gold
Tail Area—Tin/Lead
Underplating: Nickel
PCB Thickness: 1.80mm (.071")

Circuits	Order No.	Centerline Height	Total Height	Total Length	Lead-free
144	75126-1003	24.26 (.955)	32.80 (1.291)	111.50 (4.390)	RoHS compliant by exemption
	75126-2001	20.26 (.798)			

1.50mm (.059") Pitch Plateau HS Dock™ PG (Power and Guide) High Speed Docking Connectors

75475/75476
Right Angle Plug
Right Angle Receptacle



Features and Benefits
- Metal-plated plastic housing provides shielding for very low crosstalk and supports signal speeds in excess of 10Gbps
- Insert molded wafers for controlled impedance within plated signal channels
- Robust guide pins to aid in blind mating
- Separate power modules to carry currents of up to 20.0A
- Rigid stiffener holds modules in place for customer specific configurations
- Four levels of mating and guide features support hot pluggable applications, ensure proper mating and provide first-mate/last-break
- RoHS Level 5 compliant

Reference Information
Product Specification: PS-75018-001
Packaging: Tray
UL File No.: E29179
CSA File No.: 1373502
Designed In: Millimeters

Electrical
Voltage: 12V DC
Current (signal wafer): 2.75A
Current (power module): 20A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1,000 Megohms min.

Mechanical
Insertion Force to PCB: 35N max. per compliant pin
Retention Force to PCB: 9N max. per compliant pin
Mating Force: 80N max.
Unmating Force: 20N min.
Durability: 100 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—30µ" min. Select Gold
Tail Area—Tin/Lead
Underplating: Nickel
PCB Thickness: 1.80mm (.071")

Plug

Circuits	Order No.	No. of Power Modules	No. of Guide Modules	Total Length	Lead-free
72	75475-1004	2	2	79.50 (3.130)	RoHS compliant by exemption
		*Orientation: Guide—72 signal—2 power—Guide			
144	75475-1005	6	2	156.50 (6.161)	
		*Orientation: Guide—72 signal—2 power—72 signal—2 power—Guide—2 power			
108	75475-1006	3	2	107.5 (4.232)	
		Orientation: Guide—3 power—108 signal—Guide			
144	75475-1007	2	2	121.5 (4.783)	
		Orientation: Guide—2 power—144 signal—Guide			
108	75475-1008	3	2	107.5 (4.232)	
		Orientation: Guide—3 power—108 signal—Guide			

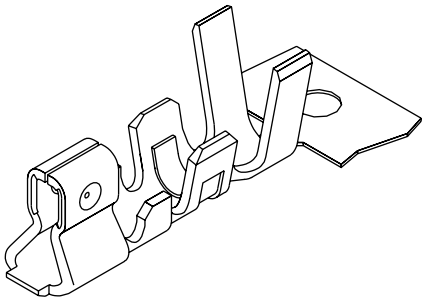
Receptacle

Circuits	Order No.	No. of Power Modules	No. of Guide Modules	Total Length	Lead-free
72	75476-1004	2	2	79.50 (3.130)	RoHS compliant by exemption
		*Orientation: Guide—72 signal—2 power—Guide			
144	75476-1005	6	2	156.50 (6.161)	
		*Orientation: 2 power—Guide—2 power—72 signal—2 power—72 signal—Guide			
108	75476-1006	3	2	107.5 (4.232)	
		*Orientation: Guide—108 signal—3 power—Guide			
144	75476-1007	2	2	121.5 (4.783)	
		*Orientation: Guide—144 signal—2 power—Guide			
108	75476-1008	3	2	107.5 (4.232)	Yes
		*Orientation: Guide—108 signal—3 power—Guide			

* Orientation is associated from the inter-mating face, moving left to right

1.50mm (.059") Pitch Pico-SPOX™ Wire-to-Board Crimp Terminal

87421



Order No.	Lead-free
87421-0000	Yes

Features and Benefits
- Low profile
- Locking tang snaps into housing window for secure retention
- Dual-point contact design
- Anti-fishhooking box design protects contact area

Reference Information
Packaging: Reel
Wire Style: UL1061
CSA File No.: LR19980A
Use With: 87439 housing
Designed In: Millimeters

Electrical
Voltage: 30V max.
Current:

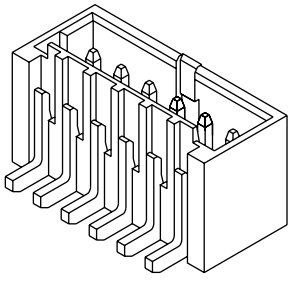
AWG	24	26
	3.0A	2.0A

Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 24, 26, 28, 30 AWG
Insulation Diameter: 1.10mm dia. max.

1.50mm (.059") Pitch Pico-SPOX™ Wire-to-Board Header

87437
Vertical, SMT Shrouded



Features and Benefits
- Sizes 2 to 15 circuits
- Compact, low-profile SMT design
- Fully shrouded to protect pins during mating/unmating
- Center keyway for secure connection to housing
- One-piece mating post and SMT tail provides coplanarity control and large soldering area
- High-temperature material withstands reflow soldering

Reference Information
Product Specification: PS-87437
Packaging: Tube or tape and reel
UL File No.: E29179
CSA File No.: LR19980A
Mates With: 87439 housing
Designed In: Millimeters

Electrical
Voltage: 350V max.
Current: 3.0A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

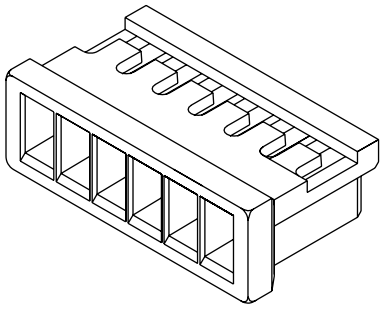
Physical
Housing: Beige glass-filled Nylon, UL 94V-0
Contact: Brass Alloy
Plating: Tin over Nickel

Circuits	Order No.		Lead-free
	Tube	Tape and Reel	
2	87437-0242	87437-0243	Yes
3	87437-0342	87437-0343	
4	87437-0442	87437-0443	
5	87437-0542	87437-0543	
6	87437-0642	87437-0643	
7	87437-0742	87437-0743	
8	87437-0842	87437-0843	

Circuits	Order No.		Lead-free
	Tube	Tape and Reel	
9	87437-0942	87437-0943	Yes
10	87437-1042	87437-1043	
11	87437-1142	87437-1143	
12	87437-1242	87437-1243	
13	87437-1342	87437-1343	
14	87437-1442	87437-1443	
15	87437-1542	87437-1543	

1.50mm (.059") Pitch Pico-SPOX™ Wire-to-Board Housing

87439



Features and Benefits
- Sizes 2 to 15 circuits
- Standard with center locking ramp
- Locking windows secure terminal to housing
- Lead-in chamfer facilitates mating

Reference Information
Product Specification: PS-87437
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980A
Mates With: 87437 and 87438 headers
Use With: 87421 crimp terminal
Designed In: Millimeters

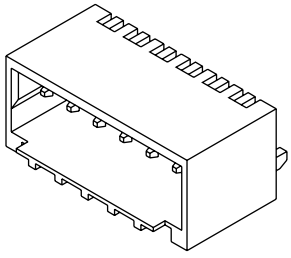
Physical
Housing: Nylon, UL 94V-0

Circuits	Order No.
2	87439-0200
3	87439-0300
4	87439-0400
5	87439-0500
6	87439-0600
7	87439-0700
8	87439-0800

Circuits	Order No.
9	87439-0900
10	87439-1000
11	87439-1100
12	87439-1200
13	87439-1300
14	87439-1400
15	87439-1500

1.50mm (.059") Pitch Pico-SPOX™ Wire-to-Board Header

87438
Right Angle, SMT Shrouded



Features and Benefits
- Sizes 2 to 15 circuits
- Compact, low-profile SMT design
- Fully shrouded to protect pins during mating/unmating
- Center keyway for secure connection to housing
- One-piece mating post and SMT tail provides coplanarity control and large soldering area
- High-temperature material withstands reflow soldering

Reference Information
Product Specification: PS-87437
Packaging: Tube or tape and reel
UL File No.: E29179
CSA File No.: LR19980A
Mates With: 87439 housing
Designed In: Millimeters

Electrical
Voltage: 350V max.
Current: 3.0A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Beige glass-filled Nylon, UL 94V-0
Contact: Brass Alloy
Plating: Tin over Nickel

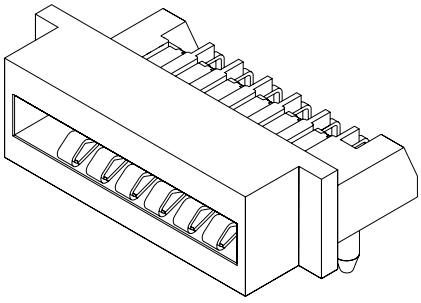
Circuits	Order No.		Lead-free
	Tube	Tape and Reel	
2	87438-0242	87438-0243	Yes
3	87438-0342	87438-0343	
4	87438-0442	87438-0443	
5	87438-0542	87438-0543	
6	87438-0642	87438-0643	
7	87438-0742	87438-0743	
8	87438-0842	87438-0843	

Circuits	Order No.		Lead-free
	Tube	Tape and Reel	
9	87438-0942	87438-0943	Yes
10	87438-1042	87438-1043	
11	87438-1142	87438-1143	
12	87438-1242	87438-1243	
13	87438-1342	87438-1343	
14	87438-1442	87438-1443	
15	87438-1542	87438-1543	

1.60mm (.063") Pitch Board-to-Board Receptacle

52712

Right Angle Detachable



Circuits	Order No.	Lead-free
12	52712-1219	Yes

Features and Benefits

- Size 12 circuits
- Pull tab on housing for easy mating/unmating
- PCB locking pegs

Reference Information

Mates With: 53440 plug
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A max.
Contact Resistance: 35 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 Megohms min.

Physical

Housing: PBT, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold on contacts and Tin on solder tails

2.00mm (.079") Pitch Connectors

Dual Row Wire-to-Board, Flex-to-Board and Board-to-Board Connectors – Milli-Grid™ ..... B-2 to B-13
Single/Dual Row Multi-Harness Wire-to-Wire and Wire-to-Board Connectors – Mi II™ ..... B-14 to B-20
Dual Row Wire-to-Board Connectors – iGrid™ ..... B-21 to B-22
Single Row Wire-to-Board Connectors – CLIK-Mate™ ..... B-23 to B-24
Product Matrices B-25, B-33
Wire-to-Wire Connectors ..... B-26 to B-27
Wire-to-Board Connectors – Micro-Latch™ ..... B-28 to B-29
Wire-to-Board Connectors ..... B-30 to B-31
Wire-to-Board Connectors – Sherlock™ ..... B-31 to B-32
Wire-to-Board Connectors – MicroBlade™ ..... B-34 to B-36
Wire-to-Board Connectors ..... B-36 to B-38
Board-In Connectors ..... B-38 to B-40
Board-to-Board Connectors B-41
Dual Row Custom Headers B-42
Pogo Pin Connector B-43

2.50mm (.098") Pitch Connectors

Product Matrices B-44, B-51, B-61, B-66
Wire-to-Board and Wire-to-Wire Connectors – SPOX™ and SPOX BMI™ ..... B-45 to B-50
Wire-to-Wire Connectors – KK® B-50
Wire-to-Wire and Wire-to-Board Connectors
- Mini-Latch™ ..... B-52 to B-53
- Mini-Lock™ ..... B-54 to B-60

Wire-to-Wire Connectors ..... B-62 to B-63
Board-In Connectors ..... B-63 to B-65
Wire-to-Board Connectors ..... B-67 to B-68
IDT Connectors – Appli-Mate™ B-69

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

2.00mm (.079") Pitch Milli-Grid™

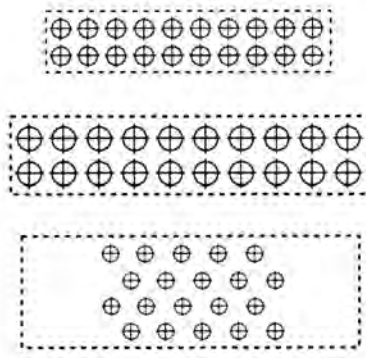
Introduction

Molex's Milli-Grid family of high density connectors is based on a 2.00 x 2.00mm grid pattern. The system offers complete design flexibility for wire-to-board, board-to-board and cable-to-board connections in PC, consumer, telecom and other electronic industries.

Compared to traditional 2.54mm (.100") pitch connectors, Milli-Grid connectors offer up to 40% savings in PCB real estate.

The Milli-Grid family includes crimp terminals, housings, headers and receptacles. The crimp terminals feature an early entry design that provides longer wiping action for more reliable contact. The receptacles boast a choice of mating styles in top, side and bottom entry in PCB, IDT and FPC versions. Headers are available in both shrouded and unshrouded styles.

The 2.00mm Advantage



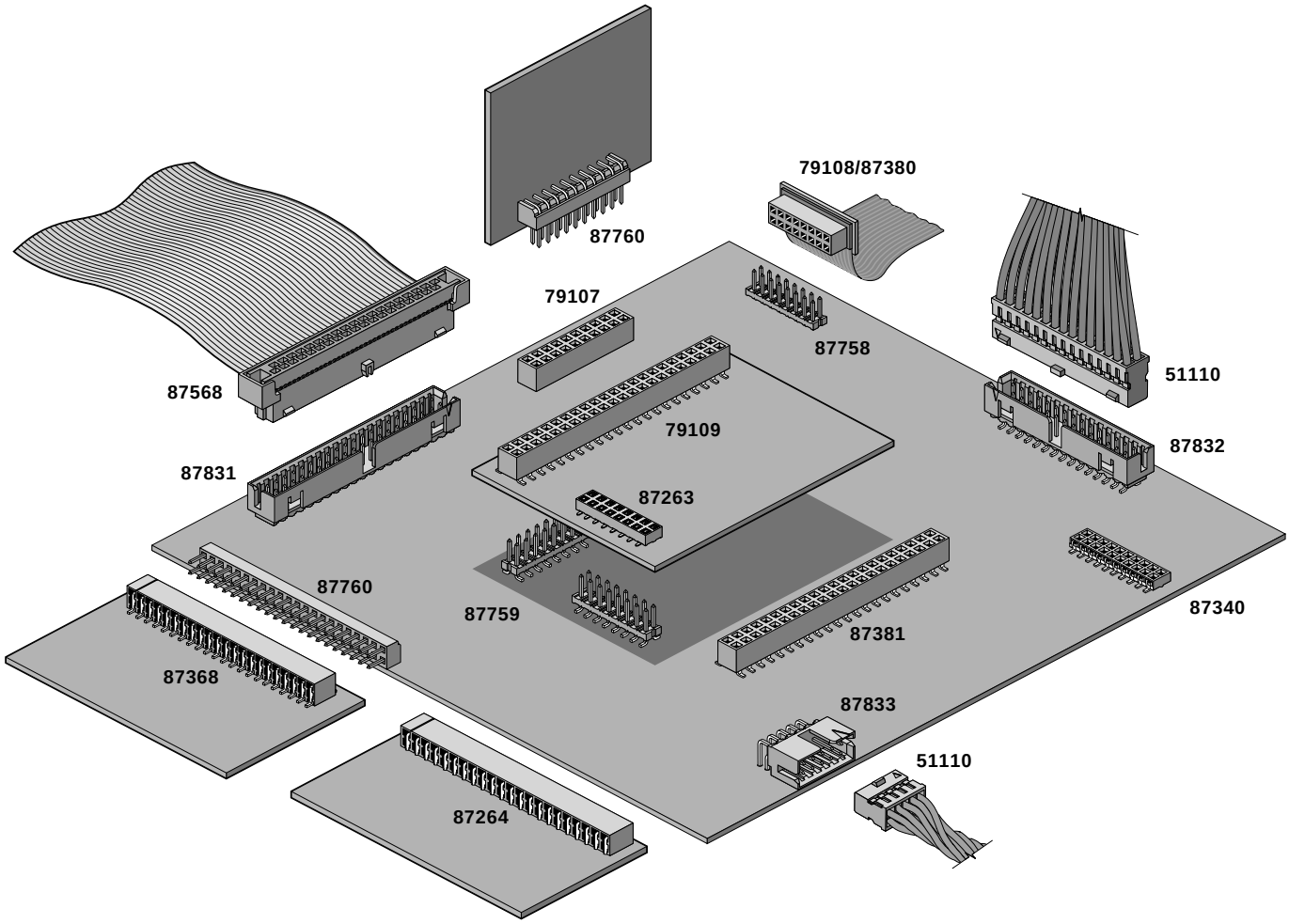
(Milli-Grid vs. 2.54 and 1.27mm Pitch)
20-Circuit PCB Usage Comparison

Milli-Grid = 80mm²

2.54mm Pitch = 125mm²

1.27mm Pitch = 185mm²

Application Overview



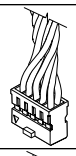
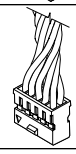
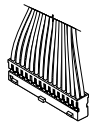
Milli-Grid™ 2.00mm (.079") Pitch Interconnection System

Wire-to-Board System

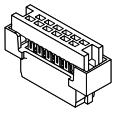
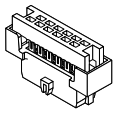
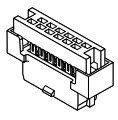
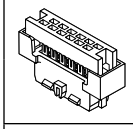
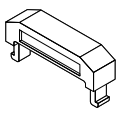
Early Entry System Terminal

	Order No.	Packaging	Plating
	50394-8051	Reel	15µ" min. Select Gold
	50394-8100	Bag	15µ" min. Select Gold
	50394-8052	Reel	30µ" min. Select Gold
	50394-8200	Bag	30µ" min. Select Gold

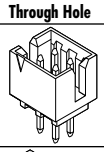
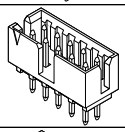
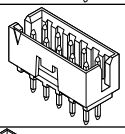
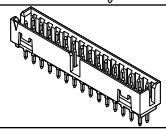
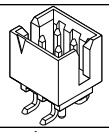
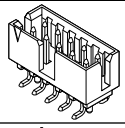
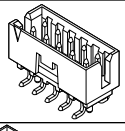
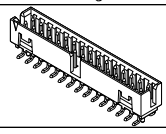
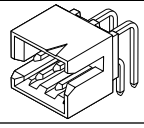
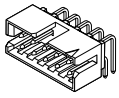
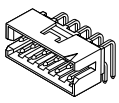
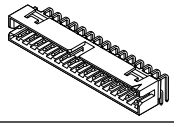
Crimp Housings

	Circuits	Order No.	Features
	4 to 32	51110-XX50	Plain
	8 to 12	51110-XX51	Center Polarization Key
	4 to 12	51110-XX60	Center Polarization Ramp
	14 to 32	51110-XX51	Locking Ramp and Polarization Key

IDT Housings and Strain Relief

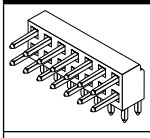
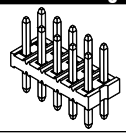
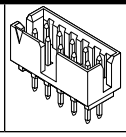
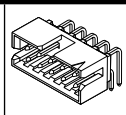
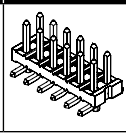
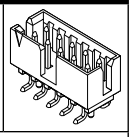
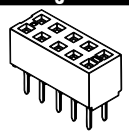
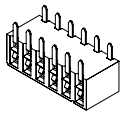
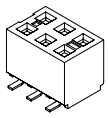
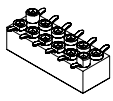
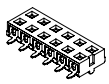
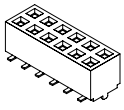
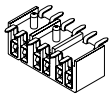
	10, 12, 14, 16, 20, 22, 24, 26, 30, 34, 40, 44 and 50	87568-XX63	Plain Front 15µ" Gold
		87568-XX64	Plain Front 30µ" Gold
	14, 16, 20, 22, 24, 26, 30, 34, 40, 44 and 50	87568-XX43	Center Polarization Ramp 15µ" Gold
		87568-XX44	Center Polarization Ramp 30µ" Gold
	10 and 12	87568-XX73	Center Locking Ramp 15µ" Gold
		87568-XX74	Center Locking Ramp 30µ" Gold
	14, 16, 20, 22, 24, 26, 30, 34, 40, 44 and 50	87568-XX93	Locking Ramp and Polarization Key 15µ" Gold
		87568-XX94	Locking Ramp and Polarization Key 30µ" Gold
	10, 12, 14, 16, 20, 22, 24, 26, 30, 34, 40, 44 and 50	87569-10XX	Strain Relief

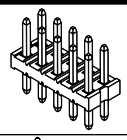
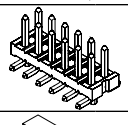
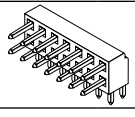
Shrouded Headers

Through Hole	Circuits	Order No.	Features
	4 to 6	87831-XX20	Plain 15µ" Gold
		87831-XX21	Plain 30µ" Gold
	8 to 12	87831-XX20	Center Polarization Slot 15µ" Gold
		87831-XX21	Center Polarization Slot 30µ" Gold
	4 to 12	87831-XX41	Center Locking Window 15µ" Gold
		87831-XX42	Center Locking Window 30µ" Gold
	14 to 50	87831-XX20	Center Polarization Slot and Locking Window 15µ" Gold
		87831-XX21	Center Polarization Slot and Locking Window 30µ" Gold
SMT			
	4 to 6	87832-XX20	Plain 15µ" Gold
		87832-XX21	Plain 30µ" Gold
	8 to 12	87832-XX20	Center Polarization Slot 15µ" Gold
		87832-XX21	Center Polarization Slot 30µ" Gold
	4 to 12	87832-XX10	Center Locking Window 15µ" Gold
		87832-XX11	Center Locking Window 30µ" Gold
	14 to 50	87832-XX20	Center Polarization Slot and Locking Window 15µ" Gold
		87832-XX21	Center Polarization Slot and Locking Window 30µ" Gold
Right Angle			
	4 to 6	87833-XX20	Plain 15µ" Gold
		87833-XX21	Plain 30µ" Gold
	8 to 12	87833-XX20	Center Polarization Slot 15µ" Gold
		87833-XX21	Center Polarization Slot 30µ" Gold
	4 to 12	87833-XX31	Center Locking Window 15µ" Gold
		87833-XX32	Center Locking Window 30µ" Gold
	14 to 50	87833-XX20	Center Polarization Slot and Locking Window 15µ" Gold
		87833-XX21	Center Polarization Slot and Locking Window 30µ" Gold

Milli-Grid™ 2.00mm (.079") Pitch Interconnection System

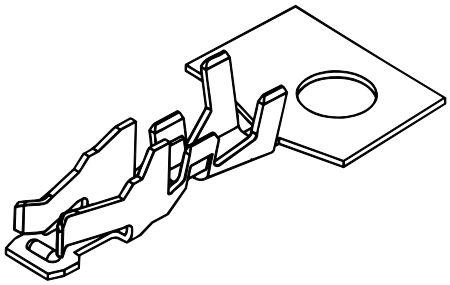
Board-to-Board System

				Through Hole				SMT	
									
				Series/Description					
				87760 Right Angle	87758 Vertical	87831 Vertical	87833 Right Angle	87759 Vertical	87832 Vertical
	Series	Description	Contact Point	Overall Height	Circuits		Overall Mating Heights		
Through Hole									
	79107	Top Entry	1.50 (.059)	4.44 (.175)	4 to 50	6.94 (.273)	6.94 (.273)	7.14 (.281)	8.14 (.320)
	87264	Side Entry	1.50 (.059)	4.00 (.157) by 5.00 (.197)	8 to 50			7.70 (.303)	
SMT									
	79109	Top/Bottom Entry	1.50 (.059)	4.65 (.183)	4 to 50	7.15 (.281)	7.15 (.281)	7.35 (.289)	8.35 (.329)
	87263	Bottom Entry	1.30 (.051)	2.80 (.110)	4 to 44			7.08 (.279)	
	87340	Top Entry	0.90 (.035)	2.15 (.085)	4 to 20			4.85 (.191)	
	87381	Top Entry	1.70 (.067)	4.50 (.177)	6 to 50	7.00 (.276)	7.00 (.276)	7.20 (.283)	8.20 (.323)
	87368	Side Entry	1.50 (.059)	4.90 (.193) by 5.00 (.197)	8 to 50			7.70 (.303)	

Unshrouded Headers					
	Order No.	Circuits	Features	Mating Length	Tail Length
	87758-XX16	4 to 50	15µ" Gold	4.00 (.158)	2.60 (.102)
	87758-XX17		30µ" Gold		
	87759-XX50	8 to 50	With Pegs 15 Gold	3.80 (.150)	1.20 (.047)
	87759-XX51		With Pegs 30µ" Gold		
	87759-XX14	4 to 50	Without Pegs 15µ" Gold		
	87759-XX15		Without Pegs 30µ" Gold		
	87760-XX16	4 to 50	15µ" Gold	4.00 (.158)	2.60 (.102)
	87760-XX17		30µ" Gold		

2.00mm (.079") Pitch Milli-Grid™ Crimp Terminal

50394



Features and Benefits
- Early entry terminal design for superior contact

Reference Information
Product Specification: PS-51110-001
Packaging: Reel
UL File No.: E29179
CSA File No.: LR19980
Mates With: 0.50mm square pins
Use With: 51110
Designed In: Millimeters

Electrical
Voltage: 125V
Current:

AWG	24	26	28	30
	2.0A	1.5A	1.0A	0.5A

Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

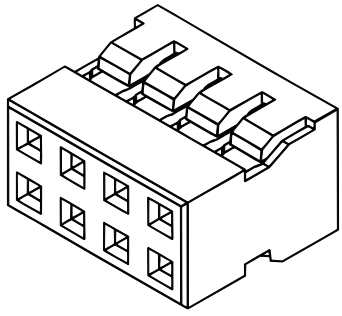
Mechanical
Contact Insertion Force: 9.8N max.
Mating Force: 1.96N per circuit max.
Unmating Force: 0.392N per circuit min.

Physical
Contact: Phosphor Bronze
Plating: See Table
Wire Range: 26 to 30 AWG
Insulation Range: 1.40mm dia. max.

Order No.	AWG	Plating	Lead-free
50394-8051	26 - 30	15µ" min. selective Gold	Yes
50394-8052		30µ" min. selective Gold	

2.00mm (.079") Pitch Milli-Grid™ Crimp Housing

51110



Features and Benefits
- Sizes 4 to 32 circuits
- Front latches for added retention forces after mating
- Options include center polarization key and front latches version (14 to 32 circuits only), center polarization key only (8 to 12 circuits)

Reference Information
Product Specification: PS-51110
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 87831, 87832, 87833, 87858, 87859, 87760
Use With: 50394
Designed In: Millimeters

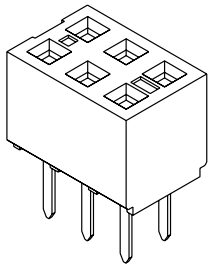
Physical
Housing: Black glass-filled polyester, UL 94V-0

Circuits	Order No.	
	Plain	With Polarization Keys
4	51110-0450	51110-0460
6	51110-0650	51110-0660
8	51110-0850	51110-0860
10	51110-1050	51110-1060
12	51110-1250	51110-1260
14	51110-1450	51110-1451
16	51110-1650	51110-1651
18	51110-1850	51110-1851

Circuits	Order No.	
	Plain	With Polarization Keys
20	51110-2050	51110-2051
22	51110-2250	51110-2251
24	51110-2450	51110-2451
26	51110-2650	51110-2651
28	51110-2850	51110-2851
30	51110-3050	51110-3051
32	51110-3250	51110-3251

2.00mm (.079") Pitch Milli-Grid™ Board-to-Board Receptacle

79107
Vertical, Dual Row Through Hole



Features and Benefits
- Sizes 4 to 50 circuits
- IR, vapor-phase and wave solder Surface Mount Compatible
- Dual beam contact design ensures reliable electrical performance
- Molded-in void locations offered for polarization to mating connector
- PC tails have tapered lead-in on for ease of insertion into the PC board
- Also available with shortened 1.91mm (.075") tail length for 0.79mm (.031") thick PC boards

Reference Information
Product Specification: PS-79107
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 0.50mm square pin headers 87760, 87758, 87759 and 87762
Designed In: Millimeters

Electrical
Voltage: 125V
Current: 1.0A
Contact Resistance: 25 milliohms max.
Dielectric Withstanding Voltage: 1250V
Insulation Resistance: 1000 Megohms min.

Mechanical
Mating Force: 8 oz max.
Unmating Force: 1.5 oz min.
Normal Force: 100g
Durability: 15µ" Gold contacts—50 cycles min.
30µ" Gold contacts—100 cycles min.

Physical
Housing: Black glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: See Table

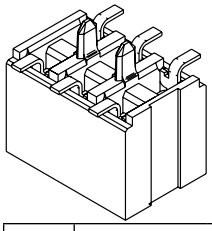
Circuits	Order No. PC Tail Length = 3.00mm (.118") 15µ" Select Gold	Order No. PC Tail Length = 3.00mm (.118") 30µ" Select Gold	Lead-free
4	79107-7001	79107-7051	Yes
6	79107-7002	79107-7052	
8	79107-7003	79107-7053	
10	79107-7004	79107-7054	
12	79107-7005	79107-7055	
14	79107-7006	79107-7056	
16	79107-7007	79107-7057	
18	79107-7008	79107-7058	

Circuits	Order No. PC Tail Length = 3.00mm (.118") 15µ" Select Gold	Order No. PC Tail Length = 3.00mm (.118") 30µ" Select Gold	Lead-free
20	79107-7009	79107-7059	Yes
22	79107-7010	79107-7060	
24	79107-7011	79107-7061	
26	79107-7012	79107-7062	
28	79107-7013	79107-7063	
30	79107-7014	79107-7064	
32	79107-7015	79107-7065	
34	79107-7016	79107-7066	

Circuits	Order No. PC Tail Length = 3.00mm (.118") 15µ" Select Gold	Order No. PC Tail Length = 3.00mm (.118") 30µ" Select Gold	Lead-free
36	79107-7017	79107-7067	Yes
38	79107-7018	79107-7068	
40	79107-7019	79107-7069	
42	79107-7020	79107-7070	
44	79107-7021	79107-7071	
46	79107-7022	79107-7072	
48	79107-7023	79107-7073	
50	79107-7024	79107-7074	

2.00mm (.079") Pitch Milli-Grid™ Board-to-Board Receptacle

79109
Vertical, Dual Row Top/Bottom Entry SMT, with Pegs



Features and Benefits
- Sizes 4 to 50 circuits
- Dual beam contact design ensures reliable electrical performance
- Molded-in void locations offered for polarization to mating connector
- Can be used as either a top or bottom entry receptacle
- Pegs offer press-fit retention to PC board

Reference Information
Product Specification: PS-79107
Packaging: Tube or tape and reel
UL File No.: E29179
CSA File No.: LR19980
Mates With: 0.50mm square pin headers 87760, 87758, 87759 and 87762
Designed In: Millimeters

Electrical
Voltage: 125V
Current: 1.0A
Contact Resistance: 25 milliohms max.
Dielectric Withstanding Voltage: 1250V
Insulation Resistance: 1000 Megohms min.

Mechanical
Mating Force: 8 oz max.
Unmating Force: 1.5 oz min.
Normal Force: 100g
Durability: 15µ" Gold contacts—50 cycles min.
30µ" Gold contacts—100 cycles min.

Physical
Housing: Black glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: See Table

Circuits	Order No. 15µ" Gold Tube	Order No. 15µ" Gold Tape and Reel	Order No. 30µ" Gold Tube	Order No. 30µ" Gold Tape and Reel	Lead-free
4	79109-1201	*	79109-1251	*	Yes
6	79109-1202	79109-8602	79109-1252	79109-8652	
8	79109-1203	79109-8603	79109-1253	79109-8653	
10	79109-1204	79109-8604	79109-1254	79109-8654	
12	79109-1205	79109-8605	79109-1255	79109-8655	
14	79109-1206	79109-8606	79109-1256	79109-8656	
16	79109-1207	79109-8607	79109-1257	79109-8657	
18	79109-1208	79109-8608	79109-1258	79109-8658	
20	79109-1209	79109-8609	79109-1259	79109-8659	
22	79109-1210	79109-8610	79109-1260	79109-8660	
24	79109-1211	79109-8611	79109-1261	79109-8661	
26	79109-1212	79109-8612	79109-1262	79109-8662	

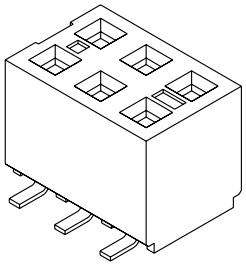
Circuits	Order No. 15µ" Gold Tube	Order No. 15µ" Gold Tape and Reel	Order No. 30µ" Gold Tube	Order No. 30µ" Gold Tape and Reel	Lead-free
28	79109-1213	79109-8613	79109-1263	79109-8663	Yes
30	79109-1214	79109-8614	79109-1264	79109-8664	
32	79109-1215	79109-8615	79109-1265	79109-8665	
34	79109-1216	79109-8616	79109-1266	79109-8666	
36	79109-1217	79109-8617	79109-1267	79109-8667	
38	79109-1218	79109-8618	79109-1268	79109-8668	
40	79109-1219	79109-8619	79109-1269	79109-8669	
42	79109-1220	79109-8620	79109-1270	79109-8670	
44	79109-1221	79109-8621	79109-1271	79109-8671	
46	79109-1222	79109-8622	79109-1272	79109-8672	
48	79109-1223	79109-8623	79109-1273	79109-8673	
50	79109-1224	79109-8624	79109-1274	79109-8674	

* Contact Molex

2.00mm (.079") Pitch Milli-Grid™ Board-to-Board Receptacle

79109

Vertical, Dual Row Top/Bottom Entry SMT, without Pegs



Features and Benefits

- Sizes 4 to 50 circuits
- Dual beam contact design ensures reliable electrical performance
- Molded-in void locations offered for polarization to mating connector
- Can be used as either top or bottom entry receptacle

Reference Information

Product Specification: PS-79107
Packaging: Tube or tape and reel
UL File No.: E29179
CSA File No.: LR19980
Mates With: 0.50mm square pin headers 87760, 87758, 87759 and 87762
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 2.22N (.50 lb) max.
Unmating Force: 0.42N (.09 lb) min.
Normal Force: 0.98N (.22 lb)
Durability: 15µ" Gold contacts—50 cycles min.
30µ" Gold contacts—100 cycles min.

Physical

Housing: Black glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: See Table

Circuits	Order No.				Lead-free
	15µ" Gold		30µ" Gold		
	Tube	Tape and Reel	Tube	Tape and Reel	
4	79109-1001	*	79109-1051	*	Yes
6	79109-1002	79109-8402	79109-1052	79109-8452	
8	79109-1003	79109-8403	79109-1053	79109-8453	
10	79109-1004	79109-8404	79109-1054	79109-8454	
12	79109-1005	79109-8405	79109-1055	79109-8455	
14	79109-1006	79109-8406	79109-1056	79109-8456	
16	79109-1007	79109-8407	79109-1057	79109-8457	
18	79109-1008	79109-8408	79109-1058	79109-8458	
20	79109-1009	79109-8409	79109-1059	79109-8459	
22	79109-1010	79109-8410	79109-1060	79109-8460	
24	79109-1011	79109-8411	79109-1061	79109-8461	
26	79109-1012	79109-8412	79109-1062	79109-8462	

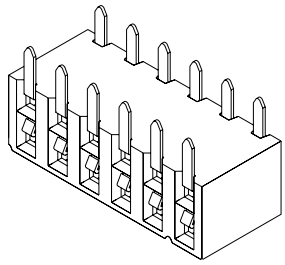
Circuits	Order No.				Lead-free
	15µ" Gold		30µ" Gold		
	Tube	Tape and Reel	Tube	Tape and Reel	
28	79109-1013	79109-8413	79109-1063	79109-8463	Yes
30	79109-1014	79109-8414	79109-1064	79109-8464	
32	79109-1015	79109-8415	79109-1065	79109-8465	
34	79109-1016	79109-8416	79109-1066	79109-8466	
36	79109-1017	79109-8417	79109-1067	79109-8467	
38	79109-1018	79109-8418	79109-1068	79109-8468	
40	79109-1019	79109-8419	79109-1069	79109-8469	
42	79109-1020	79109-8420	79109-1070	79109-8470	
44	79109-1021	79109-8421	79109-1071	79109-8471	
46	79109-1022	79109-8422	79109-1072	79109-8472	
48	79109-1023	79109-8423	79109-1073	79109-8473	
50	79109-1024	79109-8424	79109-1074	79109-8474	

* Contact Molex

2.00mm (.079") Pitch Milli-Grid™ Receptacle

87264

Side Entry



Features and Benefits

- Sizes 8 to 50 circuits
- Surface Mount Compatible

Reference Information

Product Specification: PS-87264
Packaging: Tube (contact Molex for embossed tape)
UL File No.: E29179
CSA File No.: LR19980-182
Mates With: 0.50mm square pin headers
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Insertion Force: 180g max.
Normal Force: 50g min.

Physical

Housing: Black high-temperature nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: See Table
PCB Thickness: 1.60 ± 0.10mm

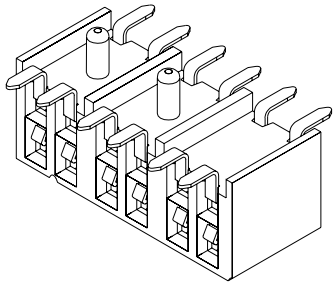
Circuits	Order No.		Lead-free
	15µ" Select Gold	30µ" Select Gold	
8	87264-0852	87264-0853	Yes
10	87264-1052	87264-1053	
12	87264-1252	87264-1253	
14	87264-1452	87264-1453	
16	87264-1652	87264-1653	
18	87264-1852	87264-1853	
20	87264-2052	87264-2053	
22	87264-2252	87264-2253	

Circuits	Order No.		Lead-free
	15µ" Select Gold	30µ" Select Gold	
24	87264-2452	87264-2453	Yes
26	87264-2652	87264-2653	
28	87264-2852	87264-2853	
30	87264-3052	87264-3053	
32	87264-3252	87264-3253	
34	87264-3452	87264-3453	
36	87264-3652	87264-3653	
38	87264-3852	87264-3853	

Circuits	Order No.		Lead-free
	15µ" Select Gold	30µ" Select Gold	
40	87264-4052	87264-4053	Yes
42	87264-4252	87264-4253	
44	87264-4452	87264-4453	
46	87264-4652	87264-4653	
48	87264-4852	87264-4853	
50	87264-5052	87264-5053	

2.00mm (.079") Pitch Milli-Grid™ Receptacle

87368
Side Entry SMT



Features and Benefits
- Sizes 10 to 50 circuits
- MCC compatible
- Polarization peg version standard
- Optional without peg version

Reference Information
Product Specification: PS-87264
Packaging: Tube (contact Molex for embossed tape)
Mates With: 0.50mm square pin headers
Designed In: Millimeters

Electrical
Voltage: 125V
Current: 1.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Insertion Force: 180g max.
Normal Force: 50g min.

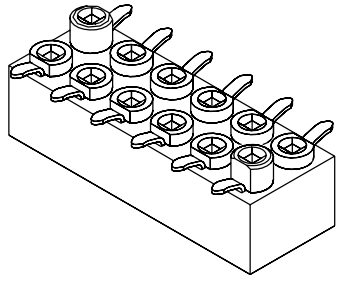
Physical
Housing: Black nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: See Table
PCB Thickness: 1.60 ± 0.10mm

Circuits	Order No.		Lead-free
	15µ" Select Gold	30µ" Select Gold	
10	87368-1024	87368-1025	Yes
12	87368-1224	87368-1225	
14	87368-1424	87368-1425	
16	87368-1624	87368-1625	
18	87368-1824	87368-1825	
20	87368-2024	87368-2025	
22	87368-2224	87368-2225	
24	87368-2424	87368-2425	
26	87368-2624	87368-2625	
28	87368-2824	87368-2825	
30	87368-3024	87368-3025	

Circuits	Order No.		Lead-free
	15µ" Select Gold	30µ" Select Gold	
32	87368-3224	87368-3225	Yes
34	87368-3424	87368-3425	
36	87368-3624	87368-3625	
38	87368-3824	87368-3825	
40	87368-4024	87368-4025	
42	87368-4224	87368-4225	
44	87368-4424	87368-4425	
46	87368-4624	87368-4625	
48	87368-4824	87368-4825	
50	87368-5024	87368-5025	

2.00mm (.079") Pitch Milli-Grid™ Receptacle

87263
Bottom Entry SMT



Features and Benefits
- Sizes 4 to 42 circuits
- Locating peg version standard
- Optional without peg version

Reference Information
Product Specification: PS-87263
Packaging: Tube (contact Molex for embossed tape and cap)
UL File No.: E29179
CSA File No.: LR19980
Mates With: 0.50mm square pin headers
Designed In: Millimeters

Electrical
Voltage: 125V
Current: 1.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Insertion Force: 180g max.
Normal Force: 50g min.

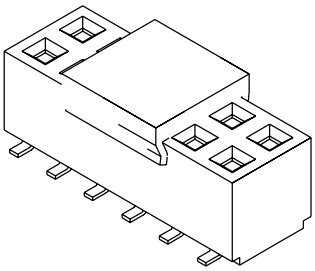
Physical
Housing: Black high-temperature nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: See Table

Circuits	Order No.		Lead-free
	15µ" Select Gold	30µ" Select Gold	
4	87263-0423	87263-0425	Yes
6	87263-0623	87263-0625	
8	87263-0823	87263-0825	
10	87263-1023	87263-1025	
12	87263-1223	87263-1225	
14	87263-1423	87263-1425	
16	87263-1623	87263-1625	
18	87263-1823	87263-1825	
20	87263-2023	87263-2025	
22	87263-2223	87263-2225	

Circuits	Order No.		Lead-free
	15µ" Select Gold	30µ" Select Gold	
24	87263-2423	87263-2425	Yes
26	87263-2623	87263-2625	
28	87263-2823	87263-2825	
30	87263-3023	87263-3025	
32	87263-3223	87263-3225	
34	87263-3423	87263-3425	
36	87263-3623	87263-3625	
38	87263-3823	87263-3825	
40	87263-4023	87263-4025	
42	87263-4223	87263-4225	

2.00mm (.079") Pitch Milli-Grid™ Receptacle

87381
Dual Row, SMT Top Entry



Features and Benefits
- Size 6 to 24, 28 to 50 circuits
- Other plating and void pin options available
- Cap version for robotic delivery
- Contact Molex for peg version

Reference Information
Product Specification: PS-87380
Packaging: Tube (Contact Molex for tape and reel packaging)
UL File No.: E29179
CSA File No.: LR19980A
Mates With: 0.50mm (.020") square pin headers
Designed In: Millimeters

Electrical
Current: 1.9A max.
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1min.
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Insertion Force: 180g max.
Contact Retention to Housing: 5.38N (1.21 lb) min.
Durability: 25 cycles

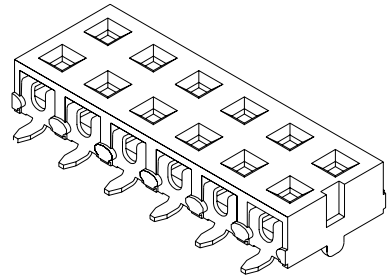
Physical
Housing: Black high-temp thermoplactic
Contact: Copper Alloy
Plating: See Table

Circuits	Order No.		Lead-free
	0.38mm (15µ") Gold	0.76mm (30µ") Gold	
6	87381-0664	87381-0663	Yes
8	87381-0864	87381-0863	
10	87381-1064	87381-1063	
12	87381-1264	87381-1263	
14	87381-1464	87381-1463	
16	87381-1664	87381-1663	
18	87381-1864	87381-1863	
20	87381-2064	87381-2063	
22	87381-2264	87381-2263	
24	87381-2464	87381-2463	
28	87381-2864	87381-2863	

Circuits	Order No.		Lead-free
	0.38mm (15µ") Gold	0.76mm (30µ") Gold	
30	87381-3064	87381-3063	Yes
32	87381-3264	87381-3263	
34	87381-3464	87381-3463	
36	87381-3664	87381-3663	
38	87381-3864	87381-3863	
40	87381-4064	87381-4063	
42	87381-4264	87381-4263	
44	87381-4464	87381-4463	
46	87381-4664	87381-4663	
48	87381-4864	87381-4863	
50	87381-5064	87381-5063	

2.00mm (.079") Pitch Milli-Grid™ Receptacle

87340
Top Entry SMT (VLPR2)



Features and Benefits
- Sizes 4 to 20 circuits
- Locating peg version standard
- Very low profile height 2.15mm
- End-to-end stackable
- Optional without peg version
- Contact Molex for pick-and-place cap or embossed tape

Reference Information
Product Specification: PS-87340
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 0.50mm square pin headers
Designed In: Millimeters

Electrical
Voltage: 125V
Current: 1.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 1000 Megohms min.

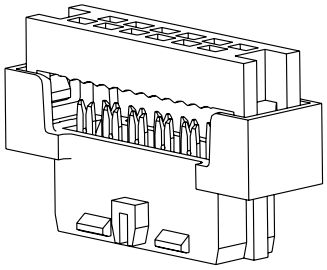
Mechanical
Contact Insertion Force: 180g max.
Contact Retention to Housing: 0.32kg min.
Normal Force: 50g min.

Physical
Housing: Black LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: See Table

Circuits	Order No.		Lead-free
	15µ" Select Gold	30µ" Select Gold	
4	87340-0424	87340-0423	Yes
6	87340-0624	87340-0623	
8	87340-0824	87340-0823	
10	87340-1024	87340-1023	
12	87340-1224	87340-1223	
14	87340-1424	87340-1423	
16	87340-1624	87340-1623	
18	87340-1824	87340-1823	
20	87340-2024	87340-2023	

2.00mm (.079") Pitch Milli-Grid™ Cable-to-Board Receptacle

87568
Dual Row, IDT



Features and Benefits
- Pre-loaded upper housing offers precise cover-to-base alignment, ensuring a reliable termination
- Early-entry single-beam contact provides long wiping action during mating
- Optional polarization and locking ramp
- Optional strain relief is available

Reference Information
Product Specification: PS-87568-004
Packaging: Tray
Wire Style: UL2651, UL2678
UL File No.: E29179
CSA File No: LR19980
Mates With: Milli-Grid 2.00mm (.079") Headers
Use With: 87569 Strain Relief
Designed In: Millimeters

Electrical
Voltage: 125V DC
Current: 1.0A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 5000 Megohms min.

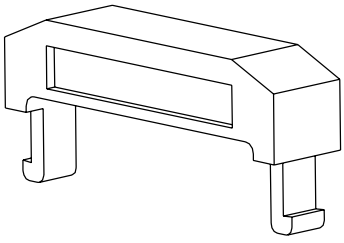
Mechanical
Contact Retention to Housing: 1.96N (0.44 lb) max.
Wire Pull-Out Force: 2.45N (0.55 lb) max.
Mating Force: 1.96N (0.44 lb) max.
Unmating Force: 0.39N (0.09 lb) min.
Durability: 600 cycles max.

Physical
Housing: Black glass-filled PBT
Contact: Copper Alloy
Plating: Contact Area—See Table Below
Underplating—Nickel
Cable: 1.00mm Flat Cable, 7 Strands, 28 AWG

Circuits	Order No.		X=4 With Center Polarization	X=6 Without Polarization and Locking Ramp	X=7 With Single Locking Ramp	X=9 With Polarization and Locking Ramp	Lead-free
	0.38µm (15µ") Gold	0.76µm (30µ") Gold					
10	87568-10X3	87568-10X4	No	Yes	Yes	No	Yes
12	87568-12X3	87568-12X4					
14	87568-14X3	87568-14X4	Yes		No	Yes	
16	87568-16X3	87568-16X4					
20	87568-20X3	87568-20X4					
22	87568-22X3	87568-22X4					
24	87568-24X3	87568-24X4					
26	87568-26X3	87568-26X4					
30	87568-30X3	87568-30X4					
34	87568-34X3	87568-34X4					
40	87568-40X3	87568-40X4					
44	87568-44X3	87568-44X4					
50	87568-50X3	87568-50X4					

2.00mm (.079") Pitch Milli-Grid™ Cable-to-Board Strain Relief

87569
IDT



Features and Benefits
- Sizes 10 to 50 circuits
- Provide additional cable retention

Reference Information
Product Specification: PS-87568-004
Packaging: Bag
Use With: 87568
Designed In: Millimeters

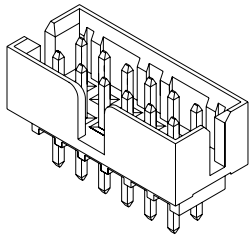
Physical
Housing: Black thermoplastic, UL 94V-0

Circuits	Order No.
10	87569-1010
12	87569-1012
14	87569-1014
16	87569-1016
20	87569-1020
22	87569-1022
24	87569-1024

Circuits	Order No.
26	87569-1026
30	87569-1030
34	87569-1034
40	87569-1040
44	87569-1044
50	87569-1050

2.00mm (.079") Pitch Milli-Grid™ Header

87831
Shrouded Vertical, SMC



Features and Benefits
- Sizes 4 to 50 circuits
- Fully shrouded to protect pins during mating/unmating
- Center slot for polarization
- Front latches for mechanical locking
- Center polarization slot (6 to 12 circuits); center polarization slot and front latches (14 to 50 circuits)

Reference Information
Product Specification: PS-87831-027
Packaging: Tube (contact Molex for embossed tape)
UL File No.: E29179
CSA File No.: LR19980
Mates With: 50394, 51110 and 87568
Designed In: Millimeters

Electrical
Voltage: 125V
Current: 2.0A
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 1000 Megohms min.

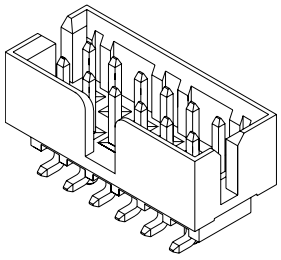
Physical
Housing: Black 4/6 nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: See Table

Circuits	Order No.		Lead-free
	15µ" Select Gold	30µ" Select Gold	
4	87831-0420	87831-0421	Yes
6	87831-0620	87831-0621	
8	87831-0820	87831-0821	
10	87831-1020	87831-1021	
12	87831-1220	87831-1221	
14	87831-1420	87831-1421	
16	87831-1620	87831-1621	
18	87831-1820	87831-0621	
20	87831-2020	87831-2021	
22	87831-2220	87831-2221	
24	87831-2420	87831-2421	
26	87831-2620	87831-2621	

Circuits	Order No.		Lead-free
	15µ" Select Gold	30µ" Select Gold	
28	87831-2820	87831-2821	Yes
30	87831-3020	87831-3021	
32	87831-3220	87831-3221	
34	87831-3420	87831-3421	
36	87831-3620	87831-3621	
38	87831-3820	87831-3821	
40	87831-4020	87831-4021	
42	87831-4220	87831-4221	
44	87831-4420	87831-4421	
46	87831-4620	87831-4621	
48	87831-4820	87831-4821	
50	87831-5020	87831-5021	

2.00mm (.079") Pitch Milli-Grid™ Header

87832
Shrouded SMT



Features and Benefits
- Sizes 4 to 50 circuits
- Fully shrouded to protect pins during mating/unmating
- Center slot for polarization
- Front latches for mechanical locking
- Locating pegs for automatic insertion process
- Center polarization slot (6 to 12 circuits); center polarization and front latches (14 to 50 circuits)
- Contact Molex for embossed tape

Reference Information
Product Specification: PS-87831-027
Packaging: Tube (contact Molex for tape and reel)
UL File No.: E29179
CSA File No.: LR19980
Mates With: 50394, 51110 and 87568
Designed In: Millimeters

Electrical
Current: 2.0A
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 1000 Megohms min.

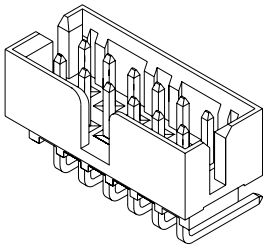
Physical
Housing: Black 4/6 nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: See Table

Circuits	Order No.		Lead-free
	15µ" Select Gold	30µ" Select Gold	
4	87832-0420	87832-0421	Yes
6	87832-0620	87832-0621	
8	87832-0820	87832-0821	
10	87832-1020	87832-1021	
12	87832-1220	87832-1221	
14	87832-1420	87832-1421	
16	87832-1620	87832-1621	
18	87832-1820	87832-1821	
20	87832-2020	87832-2021	
22	87832-2220	87832-2221	
24	87832-2420	87832-2421	
26	87832-2620	87832-2621	

Circuits	Order No.		Lead-free
	15µ" Select Gold	30µ" Select Gold	
28	87832-2820	87832-2821	Yes
30	87832-3020	87832-3021	
32	87832-3220	87832-3221	
34	87832-3420	87832-3421	
36	87832-3620	87832-3621	
38	87832-3820	87832-3821	
40	87832-4020	87832-4021	
42	87832-4220	87832-4221	
44	87832-4420	87832-4421	
46	87832-4620	87832-4621	
48	87832-4820	87832-4821	
50	87832-5020	87832-5021	

2.00mm (.079") Pitch Milli-Grid™ Header

87833 Shrouded Right Angle



Features and Benefits
- Sizes 4 to 50 circuits
- Fully shrouded to protect pins during mating/unmating
- Center slot for polarization
- Front latches for mechanical locking
- Center polarization slot (6 to 12 circuits); center polarization slot and front latches (14 to 50 circuits)
- Surface Mount Compatible
- Contact Molex for embossed tape

Reference Information
Product Specification: PS-87831-027
Packaging: Tube (contact Molex for tape and reel)
UL File No.: E29179
CSA File No.: LR19980
Mates With: 50394, 51110 and 87568
Designed In: Millimeters

Electrical
Current: 2.0A
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 1000 Megohms min.

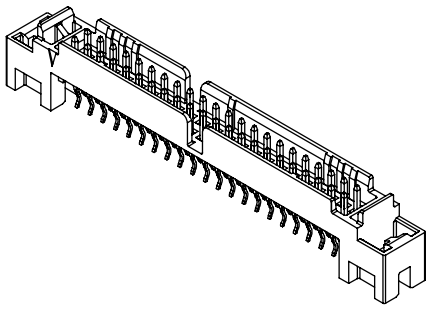
Physical
Housing: Black 4/6 nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: See Table

Circuits	Order No.		Lead-free
	15µ" Select Gold	30µ" Select Gold	
4	87833-0420	87833-0421	Yes
6	87833-0620	87833-0621	
8	87833-0820	87833-0821	
10	87833-1020	87833-1021	
12	87833-1220	87833-1221	
14	87833-1420	87833-1421	
16	87833-1620	87833-1621	
18	87833-1820	87833-1821	
20	87833-2020	87833-2021	
22	87833-2220	87833-2221	
24	87833-2420	87833-2421	
26	87833-2620	87833-2621	

Circuits	Order No.		Lead-free
	15µ" Select Gold	30µ" Select Gold	
28	87833-2820	87833-2821	Yes
30	87833-3020	87833-3021	
32	87833-3220	87833-3221	
34	87833-3420	87833-3421	
36	87833-3620	87833-3621	
38	87833-3820	87833-3821	
40	87833-4020	87833-4021	
42	87833-4220	87833-4221	
44	87833-4420	87833-4421	
46	87833-4620	87833-4621	
48	87833-4820	87833-4821	
50	87833-5020	87833-5021	

2.00mm (.079") Pitch Milli-Grid™ Header

87981/87982/87983/87984 With Latch Hook



Features and Benefits
- Early entry system provides long pin wipe
- Polarization slot to prevent reversed mating
- Polarization peg in vertical type (series 87982/87983) ensures proper orientation during mounting to PCB

Reference Information
Product Specification: PS-87981-018
Packaging: See table
Mates With: 87985 IDT Receptacle

Electrical
Voltage: 125V AC
Current: 2.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Strength: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 0.85kgf
Mating Force: 200gf per circuit max.
Unmating Force: 40gf per circuit min.
Durability: 30 cycles

Physical
Housing: See table
Contact: Phosphor Bronze
Plating: Contact Area—0.38µm (15µ") min. Gold
Solder Tail Area—Tin
Underplating: Nickel
PCB Thickness: 1.60mm +/-0.10mm

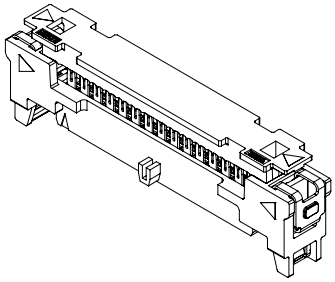
Circuits	Order No.	Orientation	PCB Mounting	Packaging	Housing	Lead-free
30	87982-3030	Vertical	Through Hole	Tube	Black glass-filled nylon, UL 94V-0	Yes
40	87982-3040	Vertical	Through Hole	Tube	Black glass-filled nylon, UL 94V-0	
40	87984-3040	Right Angle	Through Hole	Tube	Black glass-filled nylon, UL 94V-0	
44	87981-3044	Right Angle	Straddle Mount	Tube	Black glass-filled LCP, UL 94V-0	
44	87982-3044	Vertical	Through Hole	Tube	Black glass-filled nylon, UL 94V-0	
44	87983-3044	Vertical	SMT	Tape and Reel	Black glass-filled nylon, UL 94V-0	
50	87981-3050	Right Angle	Straddle Mount	Tube	Black glass-filled LCP, UL 94V-0	
50	87982-3050	Vertical	Through Hole	Tube	Black glass-filled nylon, UL 94V-0	

Contact Molex for availability of other circuit sizes (4-50 circuits)

2.00mm (.079") Pitch Milli-Grid™ IDT Cable-to-Board Receptacle

87985

Dual Row, IDT With Metal Latch



Circuits	Order No.	Lead-free
30	87985-3030	Yes
40	87985-3040	
44	87985-3044	
50	87985-3050	

Contact Molex for availability of other circuit sizes (4-50 circuits)

Features and Benefits

- Metal latches provide strong retention and full mate to header
- Strain relief provides greater retention to header

Reference Information

Product Specification: PS-87985-026
Packaging: Tray
Mates With: 87981, 87982, 87983 and 87984 headers

Electrical

Voltage: 125V AC (RMS)/DC max.
Current: 1.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 0.20kgf min.
Mating Force: 200gf max. per circuit
Unmating Force: 40gf min. per circuit
Durability: 30 cycles

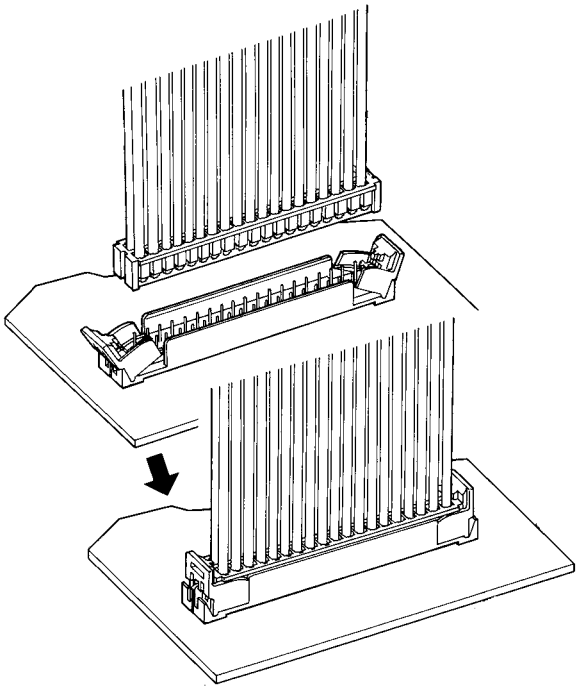
Physical

Housing: Gray glass-filled PBT, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.38µm (15µ") Gold
Solder Tail Area—Tin
Underplating: Nickel
Wire Gauge: 26 and 28 AWG stranded flat ribbon cable

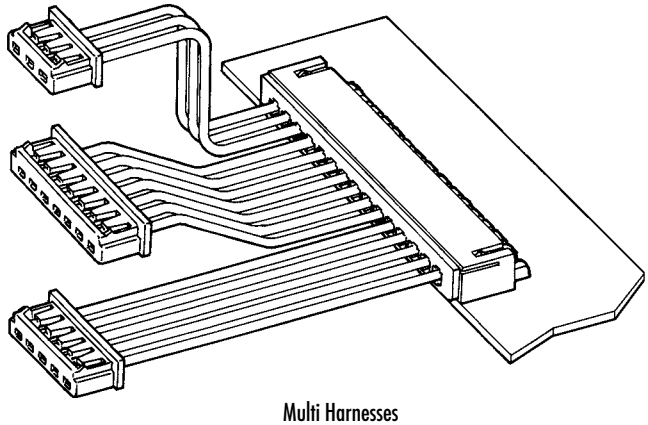
Mi II™ (2.00 x 2.50mm) Connection System

Features

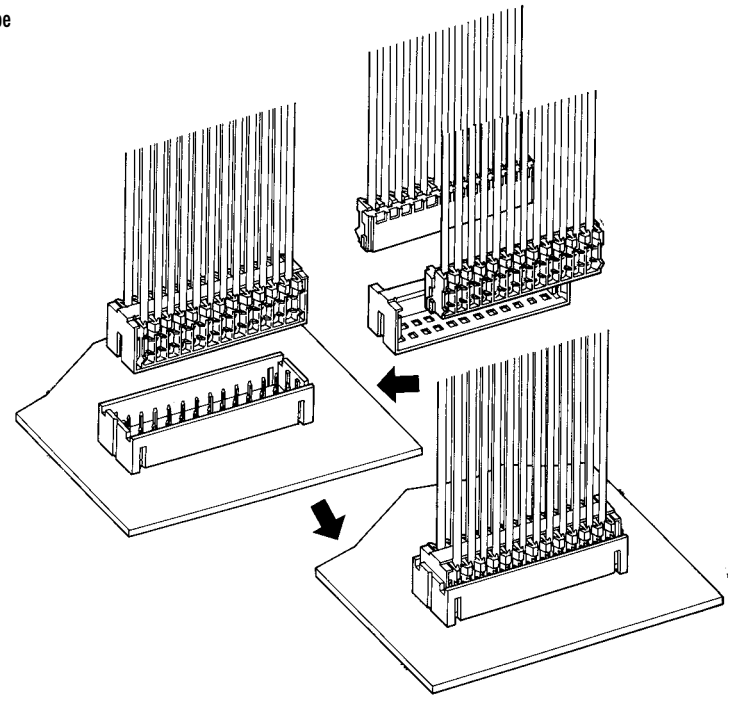
- 2.00mm pitch low profile wire-to-board connector
- Single and dual row, crimp and IDT
- Low insertion force design, locking features and high reliability
- Kinked header pins
- Clip allows back-to-back stacking of single row IDT assemblies
- Application tooling for use in assembling harnesses
- Board-in type is available in vertical and right angle types



Eject Lever Type



Multi Harnesses



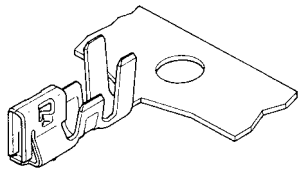
With Clip Connection Type

Mi II™ System Chart

Dual Row

Single Row

50212 Terminal



Crimp 51089

Housing

IDT 52484

Crimp 51090

Wire-to-Wire Clip

Panel Mount Type 53358

51094

Vertical 53313

53314

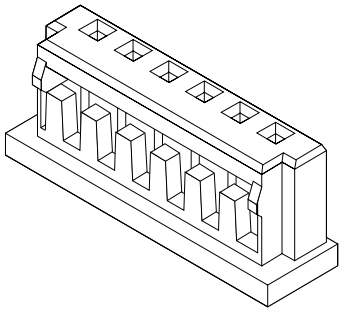
Header

Straight 53324

Right Angle 53325

2.00mm (.079") Pitch Mi II™ System Wire-to-Board Housing

51090
Single Row Crimp



Features and Benefits
- Sizes 2 to 15 circuits

Reference Information
Product Specification: Refer to Mates With items
Packaging: Bag
UL File No.: E29179
Mates With: 53324, 53325 and 53358
Use With: 50212
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	22	24	26	28	30
	2.5A	2.0A	1.5A	1.0A	0.5A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

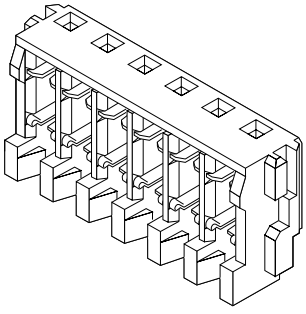
Physical
Housing: PBT, UL 94V-0

Circuits	Order No.
2	51090-0200
3	51090-0300
4	51090-0400
5	51090-0500
6	51090-0600
7	51090-0700
8	51090-0800

Circuits	Order No.
9	51090-0900
10	51090-1000
11	51090-1100
12	51090-1200
13	51090-1300
14	51090-1400
15	51090-1500

2.00mm (.079") Pitch Mi II™ System Wire-to-Board Receptacle

52484
Single Row IDT



Features and Benefits
- Sizes 2 to 15 circuits
- IDT provides secure and cost-effective termination

Reference Information
Product Specification: Refer to Mates With items
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 53324, 53325, 53358 and 53313 (with 51094 clip)
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	26	28
	1.5A	1.0A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

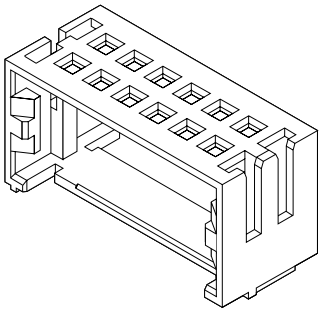
Physical
Housing: Glass-filled Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 26 to 28 AWG
Insulation Range: 0.85 to 1.05mm dia.

Circuits	Order No.	Lead-free
2	52484-0210	Yes
3	52484-0310	
4	52484-0410	
5	52484-0510	
6	52484-0610	
7	52484-0710	
8	52484-0810	

Circuits	Order No.	Lead-free
9	52484-0910	Yes
10	52484-1010	
11	52484-1110	
12	52484-1210	
13	52484-1310	
14	52484-1410	
15	52484-1510	

2.00mm (.079") Pitch Mi II™ System Clip

51094
Dual Row



Features and Benefits
- Sizes 6 to 30 circuits
- Joins two single row receptacles (52484) to mate with a dual row header (53313)

Reference Information
Product Specification: PS-52478-002
Packaging: Bag
CSA File No.: LR19980
Mates With: 53313
Use With: 52484
Designed In: Millimeters

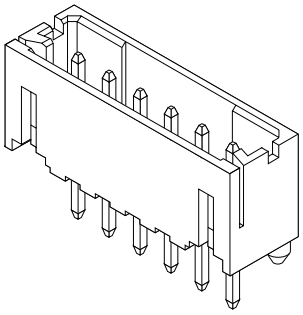
Physical
Housing: Gray PBT, UL 94V-0

Circuits	Order No.
6	51094-0605
8	51094-0805
10	51094-1005
12	51094-1205
14	51094-1405
16	51094-1605
18	51094-1805

Circuits	Order No.
20	51094-2005
22	51094-2205
24	51094-2405
26	51094-2605
28	51094-2805
30	51094-3005

2.00mm (.079") Pitch Mi II™ System Wire-to-Board Header

53324
Single Row
Vertical



Features and Benefits
- Sizes 2 to 15 circuits
- Outer pins are kinked
- Polarization peg ensures proper PCB placement

Reference Information
Product Specification: PS-51090-016, PS-52484-021
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51090 and 52484
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	22	24	26	28	30
	2.5A	2.0A	1.5A	1.0A	0.5A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

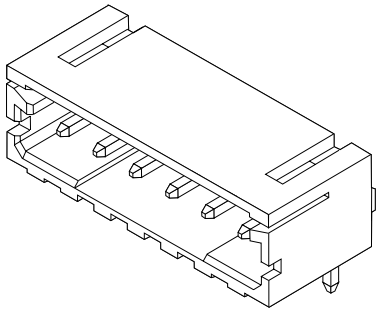
Physical
Housing: Glass-filled Nylon, UL 94V-0
Contact: Brass
Plating: Tin

Circuits	Order No.	Lead-free
2	53324-0260	Yes
3	53324-0360	
4	53324-0460	
5	53324-0560	
6	53324-0660	
7	53324-0760	
8	53324-0860	

Circuits	Order No.	Lead-free
9	53324-0960	Yes
10	53324-1060	
11	53324-1160	
12	53324-1260	
13	53324-1360	
14	53324-1460	
15	53324-1560	

2.00mm (.079") Pitch Mi II™ System Wire-to-Board Header

53325
Single Row Right Angle



Features and Benefits
- Sizes 2 to 15 circuits
- Outer pins are kinked

Reference Information
Product Specification: PS-51090-016, PS-52484-021
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51090 and 52484
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	22	24	26	28	30
	2.5A	2.0A	1.5A	1.0A	0.5A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

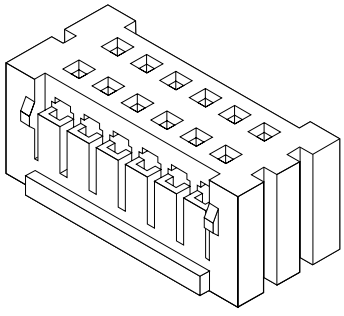
Physical
Housing: Glass-filled PBT, UL 94V-0
Contact: Brass
Plating: Tin

Circuits	Order No.	Lead-free
2	53325-0260	Yes
3	53325-0360	
4	53325-0460	
5	53325-0560	
6	53325-0660	
7	53325-0760	
8	53325-0860	

Circuits	Order No.	Lead-free
9	53325-0960	Yes
10	53325-1060	
11	53325-1160	
12	53325-1260	
13	53325-1360	
14	53325-1460	
15	53325-1560	

2.00mm (.079") Pitch Mi II™ System Wire-to-Board Housing

51089
Dual Row Crimp



Features and Benefits
- Sizes 10 to 60 circuits
- Housing lance provides extra terminal retention
- Friction lock on circuits 10 to 28 provides additional mating retention

Reference Information
Product Specification: PS-51089-005
Packaging: Bag
CSA File No.: LR 19980
Mates With: 53313 and 53314
Use With: 50212
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	22	24	26	28	30
	2.5A	2.0A	1.5A	1.0A	0.5A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

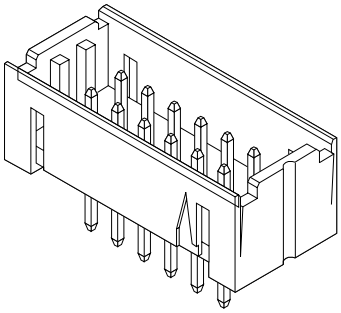
Physical
Housing: Gray glass-filled Polyester, UL 94V-0

Circuits	Order No.	Friction Lock
10	51089-1005	Yes
12	51089-1205	
14	51089-1405	
16	51089-1605	
18	51089-1805	
20	51089-2005	
22	51089-2205	
24	51089-2405	

Circuits	Order No.	Friction Lock
26	51089-2605	Yes
28	51089-2805	
30	51089-3005	No
34	51089-3405	
40	51089-4005	
50	51089-5005	
60	51089-6005	

2.00mm (.079") Pitch Mi II™ System Wire-to-Board Header

53313
Dual Row Vertical



Features and Benefits
- Sizes 6 to 60 circuits
- Polarization peg provides correct PCB placement

Reference Information
Product Specification: PS-51089-005, PS-52478-002
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51089 and 52484 (with 51094 clip)
Accepts: 51094 clip with two 52484 IDT receptacles
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	22	24	26	28	30
	2.5A	2.0A	1.5A	1.0A	0.5A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

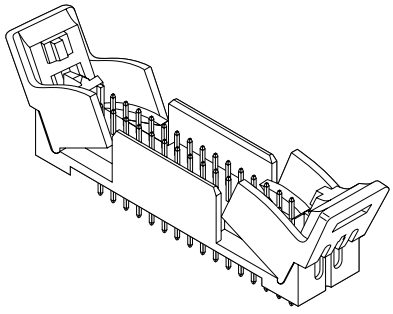
Physical
Housing: Gray glass-filled Nylon, UL 94V-0
Contact: Brass
Plating: Tin

Circuits	Order No.	Lead-free
6	53313-0665	Yes
8	53313-0865	
10	53313-1065	
12	53313-1265	
14	53313-1465	
16	53313-1665	
18	53313-1865	
20	53313-2065	
22	53313-2265	

Circuits	Order No.	Lead-free
24	53313-2465	Yes
26	53313-2665	
28	53313-2865	
30	53313-3065	
34	53313-3465	
40	53313-4065	
50	53313-5065	
60	53313-6065	

2.00mm (.079") Pitch Mi II™ System Wire-to-Board Header

53314
Dual Row, Vertical With Eject Levers



Features and Benefits
- Sizes 30 to 60 circuits
- Polarization peg provides correct PCB placement

Reference Information
Product Specification: PS-51089-005
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51089
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	22	24	26	28	30
	2.5A	2.0A	1.5A	1.0A	0.5A

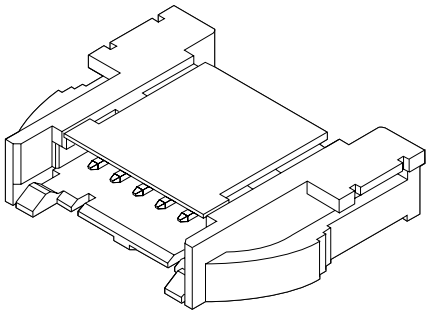
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Gray glass-filled Nylon, UL 94V-0
Contact: Brass
Plating: Tin

Circuits	Order No.	Lead-free
30	53314-3065	Yes
34	53314-3465	
40	53314-4065	
50	53314-5065	
60	53314-6065	

2.00mm (.079") Pitch Mi II™ System Wire-to-Wire Panel Adapter

53358
Single Row



Features and Benefits
- Low insertion force
- Locking feature
- Low profile

Reference Information
Product Specification: PS-53358-001
Packaging: Bag
Mates With: 51090 and 52484
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	24	26	28	30
	2.0A	1.5A	1.0A	0.5A

Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

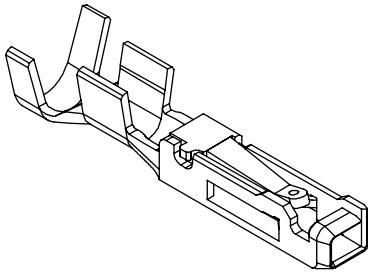
Physical
Housing: White PBT, UL 94V-0
Contact: Brass
Plating: Tin

Circuits	Order No.	Lead-free
2	53358-0240	Yes
3	53358-0340	
4	53358-0440	
5	53358-0540	
6	53358-0640	
7	53358-0740	
8	53358-0840	

Circuits	Order No.	Lead-free
9	53358-0940	Yes
10	53358-1040	
11	53358-1140	
12	53358-1240	
13	53358-1340	
14	53358-1440	
15	53358-1540	

2.00mm (.079") Pitch iGrid™ Wire-to-Board Crimp Terminal

501647/501648
Female



Features and Benefits
- Polarization between housing and terminal ensures terminal always seats properly in housing

Reference Information
Product Specification: PS-501646-001
Packaging: Reel and Bag
Use With: 501646 housing
Designed In: Millimeters

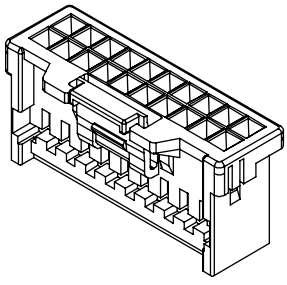
Electrical
Voltage: 250V max.
Current: 2.0A max.

Physical
Contact: Copper Alloy
Plating: Tin
Insulation Diameter: 501647—1.50 mm dia. max.
501648—1.40 mm dia. max.
Strip Length: 2.10 to 2.50 mm

AWG	Order No.	Packing	Lead-free
22-26	501647-1000	Reel	Yes
22-26	501647-1100	Bag	
26-28	501648-1000	Reel	

2.00mm (.079") Pitch iGrid™ Wire-to-Board Housing

501646
Dual Row
Positive Lock



Features and Benefits
- Sizes 10 to 40 circuits
- Polarization between housing and terminal ensures terminal always seats properly in housing
- Internal lock prevents wire tangling, provides space savings and audible click

Reference Information
Product Specification: PS-501646-001
Packaging: Bag
Mates With: 501645, 501876
Use With: 501647/501648 terminal
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 2.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

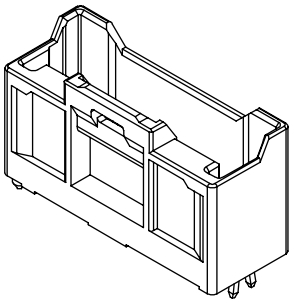
Physical
Housing: Nylon, UL 94V-0

Circuits	Order No.	Lead-free
10	501646-1000	Yes
12	501646-1200	
14	501646-1400	
16	501646-1600	
18	501646-1800	
20	501646-2000	
22	501646-2200	
24	501646-2400	

Circuits	Order No.	Lead-free
26	501646-2600	Yes
28	501646-2800	
30	501646-3000	
32	501646-3200	
34	501646-3400	
36	501646-3600	
38	501646-3800	
40	501646-4000	

2.00mm (.079") Pitch iGrid™ Wire-to-Board Header

501645
Dual Row, Vertical With PCB Locator



Features and Benefits
- Sizes 10 to 40 circuits
- Compact design saves PCB real estate, high density
- Fully shrouded headers withstand rugged handling and vibration
- Internal lock prevents wire tangling, provides space savings and audible click

Reference Information
Product Specification: PS-501646-001
Packaging: Tray
Mates With: 501646
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 2.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

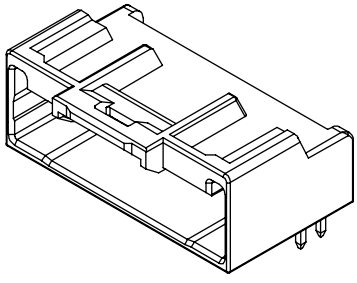
Physical
Housing: Glass-filled Nylon, UL 94V-0
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
10	501645-1020	Yes
12	501645-1220	
14	501645-1420	
16	501645-1620	
18	501645-1820	
20	501645-2020	
22	501645-2220	
24	501645-2420	

Circuits	Order No.	Lead-free
26	501645-2620	Yes
28	501645-2820	
30	501645-3020	
32	501645-3220	
34	501645-3420	
36	501645-3620	
38	501645-3820	
40	501645-4020	

2.00mm (.079") Pitch iGrid™ Wire-to-Board Header

501876
Dual Row Right Angle



Features and Benefits
- Sizes 10 to 40 circuits
- Compact design saves PCB real estate, high density
- Fully shrouded headers withstand rugged handling and vibration
- Internal lock prevents wire tangling, provides space savings and audible click

Reference Information
Product Specification: PS-501646-001
Packaging: Tray
Mates With: 501646
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 2.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

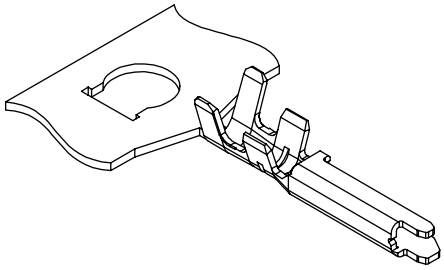
Physical
Housing: Glass-filled Nylon, UL 94V-0
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
10	501876-1040	Yes
12	501876-1240	
14	501876-1440	
16	501876-1640	
18	501876-1840	
20	501876-2040	
22	501876-2240	
24	501876-2440	

Circuits	Order No.	Lead-free
26	501876-2640	Yes
28	501876-2840	
30	501876-3040	
32	501876-3240	
34	501876-3440	
36	501876-3640	
38	501876-3840	
40	501876-4040	

2.00mm (.079") Pitch CLIK-Mate™ Wire-to-Board Crimp Terminal

502438



Order No.	Packaging	Lead-free
502438-0000	Reel	Yes
502438-0100	Bag	

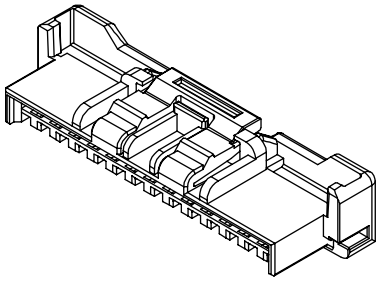
Reference Information
Product Specification: PS-502443-001
Packaging: Reel and Bag
Use With: 502439 housing
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.

Physical
Contact: Copper Alloy
Plating: Tin over Nickel
Insulation Diameter: 1.50 mm dia. max.
Strip Length: 1.90 to 2.30 mm
Wire Gauge: 22 to 26 AWG

2.00mm (.079") Pitch CLIK-Mate™ Wire-to-Board Housing

502439
Single Row Positive Lock



Circuits	Order No.	Lead-free
4	502439-0400	Yes
5	502439-0500	
6	502439-0600	
8	502439-0800	
12	502439-1200	
13	502439-1300	
14	502439-1400	

Features and Benefits
- Sizes 4 to 14 circuits
- Audible "click," low insertion force and secure mating
- Tuning fork style contact design secures contact and avoids terminal stubbing

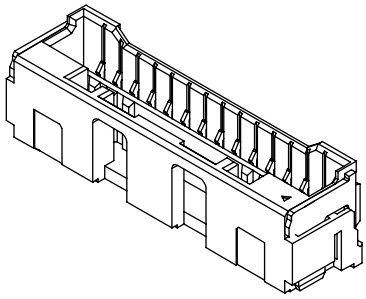
Reference Information
Product Specification: PS-502443-001
Packaging: Bag
Mates With: 502443, 502494
Use With: 502438 terminal
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 800V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: White PBT, UL 94V-0

2.00mm (.079") Pitch CLIK-Mate™ Wire-to-Board PCB Receptacle

502443
Single Row Vertical



Circuits	Order No.	Lead-free
4	502443-0470	Yes
5	502443-0570	
6	502443-0670	
8	502443-0870	
12	502443-1270	
13	502443-1370	
14	502443-1470	

Features and Benefits
- Sizes 4 to 14 circuits
- Audible "click," low insertion force and secure mating
- Tuning fork style contact design secures contact and avoids terminal stubbing
- Reinforced metal solder tabs enable housing wall support and secure PCB retention
- Flat area for pick-and-place is provided

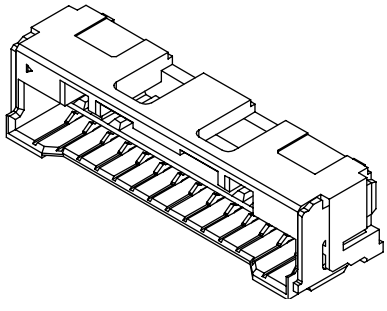
Reference Information
Product Specification: PS-502443-001
Packaging: Embossed tape
Mates With: 502439
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 800V AC/1 min.
Insulation Resistance: 1000 megohms min.

Physical
Housing: Heatproof resin, UL 94V-0
Contact: Copper Alloy
Plating: Tin over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

2.00mm (.079") Pitch CLIK-Mate™ Wire-to-Board PCB Receptacle

502494
Single Row Right Angle



Circuits	Order No.	Lead-free
4	502494-0470	Yes
6	502494-0670	
8	502494-0870	
12	502494-1270	
13	502494-1370	
14	502494-1470	

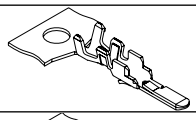
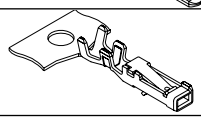
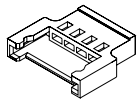
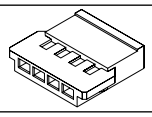
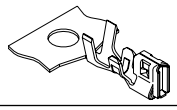
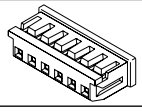
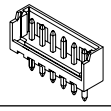
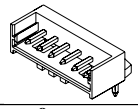
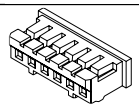
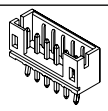
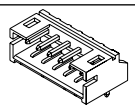
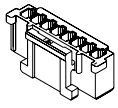
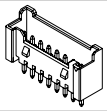
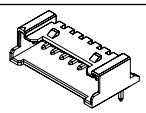
Features and Benefits
- Sizes 4 to 14 circuits
- Audible "click," low insertion force and secure mating
- Tuning fork style contact design secures contact and avoids terminal stubbing
- Reinforced metal solder tabs enable housing wall support and secure PCB retention
- Flat area for pick-and-place is provided

Reference Information
Product Specification: PS-502443-001
Packaging: Embossed tape
Mates With: 502439
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 800V AC/1 min.
Insulation Resistance: 1000 Megohms min.

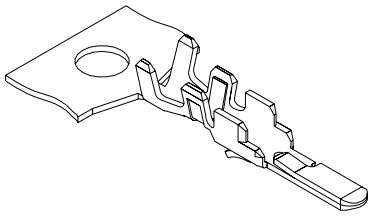
Physical
Housing: Heatproof resin, UL 94V-0
Contact: Copper Alloy
Plating: Tin over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

2.00mm (.079") Pitch

Pitch	Series		Tradename	Description
2.00mm (.079")	50012			Male Crimp Terminal
	50013			Female Crimp Terminal
	51006			Plug
	51005			Receptacle
	50212		Micro-Latch™	Female Crimp Terminal
	51065			Housing
	53253			Header
	53254			Header
	87369			Housing
	89400			Header
	89401			Header
	35507		Sherlock™	Housing
	35362			Header
	35363			Header

2.00mm (.079") Pitch Wire-To-Wire Crimp Terminal

50012
Male



Order No.	Packaging	Lead-free
50012-8000	Reel	Yes
50012-8100	Bag	

Features and Benefits
- Locking tang for secure housing retention

Reference Information
Use With: 51006
Mates With: 50013
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

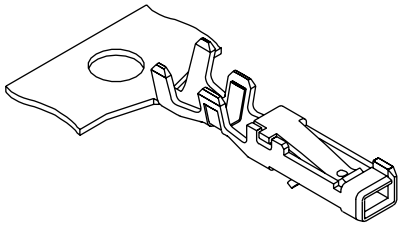
AWG	24	26	28
	2.0A	1.5A	1.0A

Physical
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 24 to 28 AWG
Insulation Diameter: 1.15mm dia. max.
Strip Length: 1.70 to 2.30mm

www.molex.com/customer.html?seriesNumber=50012

2.00mm (.079") Pitch Wire-to-Wire Crimp Terminal

50013
Female



Order No.	Packaging	Lead-free
50013-8000	Reel	Yes
50013-8100	Bag	

Features and Benefits
- Spring beam design provides high pressure and small deflection for high vibration applications
- Locking tang for secure housing retention

Reference Information
Use With: 51005
Mates With: 50012
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

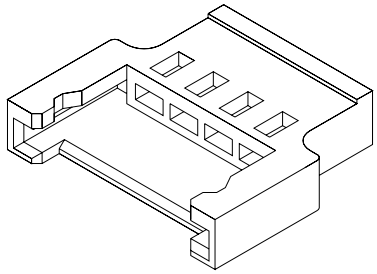
AWG	24	26	28
	2.0A	1.5A	1.0A

Physical
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 24 to 28 AWG
Insulation Diameter: 1.15mm dia. max.
Strip Length: 1.70 to 2.30mm

www.molex.com/customer.html?seriesNumber=50013

2.00mm (.079") Pitch Wire-to-Wire Plug

51006



Circuits	Order No.
2	51006-0200
3	51006-0300
4	51006-0400
5	51006-0500

Features and Benefits
- Sizes 2 to 5 circuits
- Very thin design

Reference Information
Product Specification: PS-51005-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51005
Use With: 50012
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	24	26	28
	2.0A	1.5A	1.0A

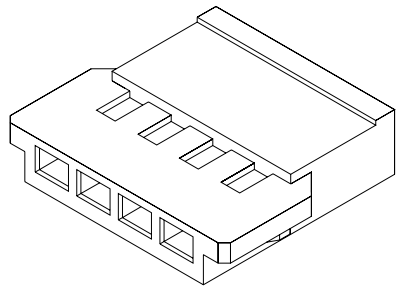
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: PBTP, UL 94V-0

www.molex.com/customer.html?seriesNumber=51006

2.00mm (.079") Pitch Wire-to-Wire Receptacle

51005



Circuits	Order No.
2	51005-0200
3	51005-0300
4	51005-0400
5	51005-0500

Features and Benefits
- Sizes 2 to 5 circuits
- Very thin design

Reference Information
Product Specification: PS-51005-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51006
Use With: 50013
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

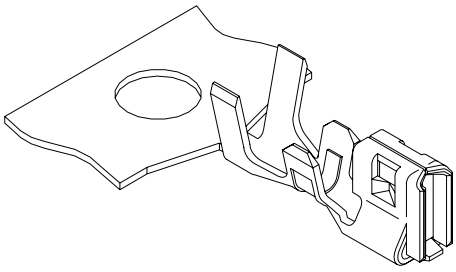
AWG	24	26	28
	2.0A	1.5A	1.0A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: PBTP, UL 94V-0

2.00mm (.079") Pitch Wire-to-Board Crimp Terminal

50212



Features and Benefits
- Locking tang provides terminal retention to housing

Reference Information
Use With: 35507, 51065, 51089, 51090 and 87369 housings
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	24	26	28	30
	2.0A	1.5A	1.0A	0.5A

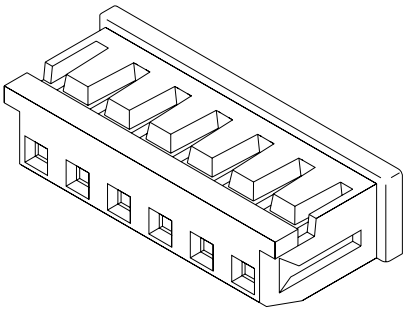
Physical
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 24 to 30 AWG
Insulation Range: 1.40mm dia. max.
Strip Length: 1.3 to 1.8mm

Order No.	Packaging	Lead-free
50212-8000	Reel	Yes
50212-8100	Bag	

www.molex.com/customer.html?seriesNumber=50212

2.00mm (.079") Pitch Micro-Latch™ Wire-to-Board Housing

51065



Features and Benefits
- Sizes 2 to 15 circuits
- Housing lance provides extra terminal retention
- Friction lock provides secure mating

Reference Information
Product Specification: PS-51065-016
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 53253 and 53254
Use With: 50212
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	24	26	28	30
	2.0A	1.5A	1.0A	0.5A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: PBT, UL 94V-0

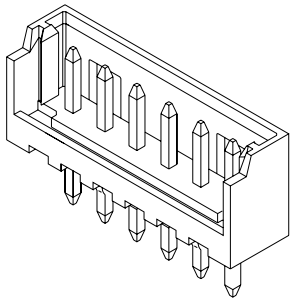
Circuits	Order No.
2	51065-0200
3	51065-0300
4	51065-0400
5	51065-0500
6	51065-0600

Circuits	Order No.
7	51065-0700
8	51065-0800
9	51065-0900
10	51065-1000
11	51065-1100

Circuits	Order No.
12	51065-1200
13	51065-1300
14	51065-1400
15	51065-1500

2.00mm (.079") Pitch Micro-Latch™ Wire-to-Board Header

53253
Vertical



Features and Benefits
- Sizes 2 to 15 circuits
- Locking windows provide secure mating

Reference Information
Product Specification: PS-51065-016
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51065
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	24	26	28	30
	2.0A	1.5A	1.0A	0.5A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0
Contact: Brass
Plating: Tin

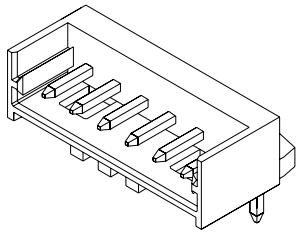
Circuits	Order No.	Lead-free
2	53253-0270	Yes
3	53253-0370	
4	53253-0470	
5	53253-0570	
6	53253-0670	
7	53253-0770	
8	53253-0870	

Circuits	Order No.	Lead-free
9	53253-0970	Yes
10	53253-1070	
11	53253-1170	
12	53253-1270	
13	53253-1370	
14	53253-1470	
15	53253-1570	

Circuits	Kink Position							
	1	2	3	4	5	N-2	N-1	N
3	x	x	x					
4	x	x	x	x				
5	x	x		x	x			
more than 6		x	x			x	x	

2.00mm (.079") Pitch Micro-Latch™ Wire-to-Board Header

53254
Right Angle



Features and Benefits
- Sizes 2 to 15 circuits
- Locking windows provide secure mating

Reference Information
Product Specification: PS-51065-016
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51065
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	24	26	28	30
	2.0A	1.5A	1.0A	0.5A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0
Contact: Brass
Plating: Tin

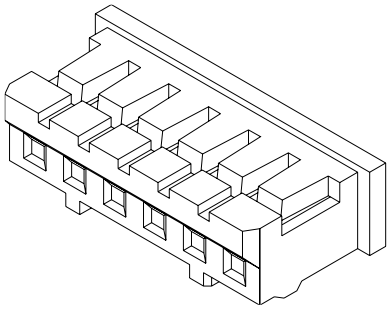
Circuits	Order No.	Lead-free
2	53254-0270	Yes
3	53254-0370	
4	53254-0470	
5	53254-0570	
6	53254-0670	
7	53254-0770	
8	53254-0870	

Circuits	Order No.	Lead-free
9	53254-0970	Yes
10	53254-1070	
11	53254-1170	
12	53254-1270	
13	53254-1370	
14	53254-1470	
15	53254-1570	

Circuits	Kink Position							
	1	2	3	4	5	N-2	N-1	N
3	x	x	x					
4	x	x	x	x				
5	x	x		x	x			
more than 6		x	x			x	x	

2.00mm (.079") Pitch Wire-to-Board Crimp Housing

87369
Single Row



Features and Benefits
- Sizes 2 to 16 circuits
- Two friction locks
- Positive polarization
- Pull tab for easy insertion/extraction

Reference Information
Product Specification: PS-87369-0001, PS-87369-0002
Packaging: Bag
Use With: 50212 crimp terminal
Mates With: 89400 and 89401 single row headers
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 2.0A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0

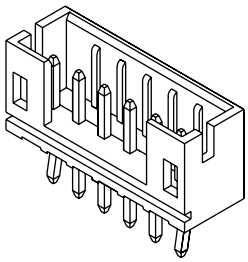
Circuits	Order No.
2	87369-0200
3	87369-0300
4	87369-0400
5	87369-0500
6	87369-0600
7	87369-0700
8	87369-0800
9	87369-0900

Circuits	Order No.
10	87369-1000
11	87369-1100
12	87369-1200
13	87369-1300
14	87369-1400
15	87369-1500
16	87369-1600

www.molex.com/customer.html?seriesNumber=87369

2.00mm (.079") Pitch Wire-to-Board Header

89400
Vertical



Features and Benefits
- Sizes 2 to 16 circuits
- Latch windows retain positive locks after mating
- Standoffs minimize flux retention
- Coined version available for positive pin retention to header
- For other color options, contact Molex

Reference Information
Product Specification: PS-87369-0001, PS-87369-0002
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980A
Mates With: 87369
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 4.0A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0
Contact: Brass
Plating: Tin

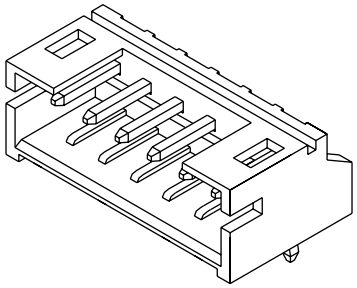
Circuits	Order No.		Lead-free
	Standard	Coined	
2		89400-0220	Yes
3		89400-0320	
4	89400-0410	89400-0420	
5	89400-0510	89400-0520	
6	89400-0610	89400-0620	
7	89400-0710	89400-0720	
8	89400-0810	89400-0820	
9	89400-0910	89400-0920	

Circuits	Order No.		Lead-free
	Standard	Coined	
10	89400-1010	89400-1020	Yes
11	89400-1110	89400-1120	
12	89400-1210	89400-1220	
13	89400-1310	89400-1320	
14	89400-1410	89400-1420	
15	89400-1510	89400-1520	
16	89400-1610	89400-1620	

www.molex.com/customer.html?seriesNumber=89400

2.00mm (.079") Pitch Wire-to-Board Header

89401
Right Angle



Features and Benefits
- Sizes 2 to 16 circuits
- Latch windows retain positive locks after mating
- Standoffs minimize flux retention
- Coined version for positive pin retention to header

Reference Information
Product Specification: PS-87369-0002
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980A
Mates With: 87369
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 4.0A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0
Contact: Brass
Plating: Tin

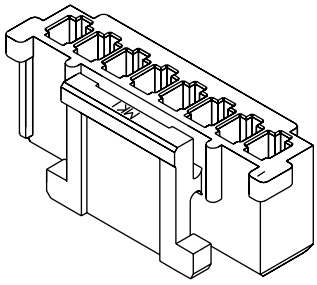
Circuits	Order No.	Lead-free
2	89401-0210	Yes
3	89401-0310	
4	89401-0410	
5	89401-0510	
6	89401-0610	
7	89401-0710	
8	89401-0810	
9	89401-0910	

Circuits	Order No.	Lead-free
10	89401-1010	Yes
11	89401-1110	
12	89401-1210	
13	89401-1310	
14	89401-1410	
15	89401-1510	
16	89401-1610	

www.molex.com/customer.html?seriesNumber=89401

2.00mm (.079") Pitch Sherlock™ Wire-to-Board Housing

35507



Features and Benefits
- Sizes 2 to 20 circuits
- Positive lock latch provides secure mating retention
- Housing lance ensures good terminal retention
- Compact low-profile design for space savings
- Polarizing end walls prevent mismating
- Five color choices for circuit identification

Reference Information
Product Specification: PS-35507-003
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 35362 and 35363 headers
Use With: 50212 terminal
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current: 2.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: PBT, UL 94V-0

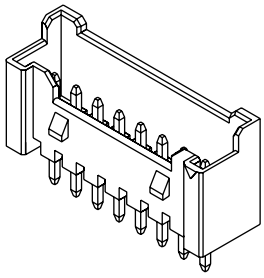
Circuits	Order No.
2	35507-0200
3	35507-0300
4	35507-0400
5	35507-0500
6	35507-0600
7	35507-0700
8	35507-0800

Circuits	Order No.
9	35507-0900
10	35507-1000
11	35507-1100
12	35507-1200
13	35507-1300
14	35507-1400
15	35507-1500

Circuits	Order No.
16	35507-1600
17	35507-1700
18	35507-1800
19	35507-1900
20	35507-2000

2.00mm (.079") Pitch Sherlock™ Wire-to-Board Header

35362
Vertical



Features and Benefits
- Sizes 2 to 15 circuits
- Positive locking ribs provide secure mating retention
- Four-wall shroud with guide plate protects pins and facilitates mating
- Compact low-profile design for space savings
- Polarizing end walls prevent mismating
- Five color choices for circuit identification

Reference Information
Product Specification: PS-35507-003
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 35507 housing
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current: 2.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: PA, UL 94V-0
Contact: Brass
Plating: Tin

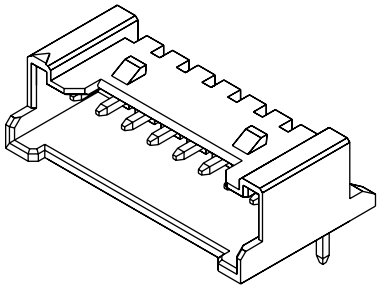
Circuits	Order No.	Lead-free
2	35362-0250	Yes
3	35362-0350	
4	35362-0450	
5	35362-0550	
6	35362-0650	

Circuits	Order No.	Lead-free
7	35362-0750	Yes
8	35362-0850	
9	35362-0950	
11	35362-1150	
12	35362-1250	

Circuits	Order No.	Lead-free
13	35362-1350	Yes
14	35362-1450	
15	35362-1550	

2.00mm (.079") Pitch Sherlock™ Wire-to-Board Header

35363
Right Angle



Features and Benefits
- Sizes 2 to 20 circuits
- Positive locking ribs provide secure mating retention
- Four-wall shroud with guide plate protects pins and facilitates mating
- Compact low-profile design for space savings
- Polarizing end walls prevent mismating
- Five color choices for circuit identification

Reference Information
Product Specification: PS-35507-003
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 35507 housing
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current: 2.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

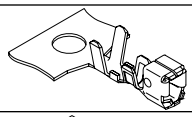
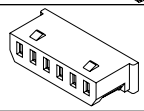
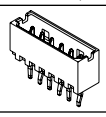
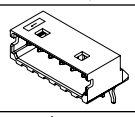
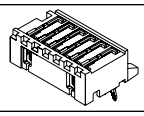
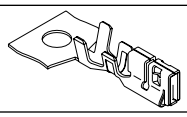
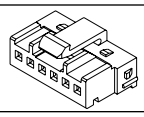
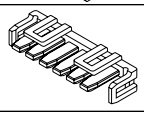
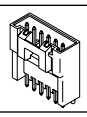
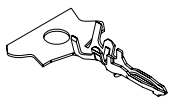
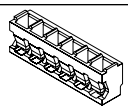
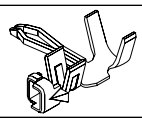
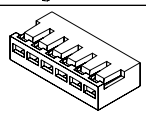
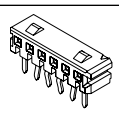
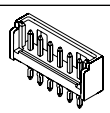
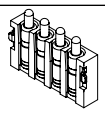
Physical
Housing: PA, UL 94V-0
Contact: Brass
Plating: Tin

Circuits	Order No.	Lead-free
2	35363-0260	Yes
3	35363-0360	
4	35363-0460	
5	35363-0560	
6	35363-0660	
7	35363-0760	

Circuits	Order No.	Lead-free
8	35363-0860	Yes
9	35363-0960	
10	35363-1060	
11	35363-1160	
12	35363-1260	
13	35363-1360	

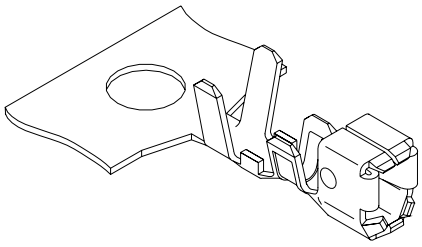
Circuits	Order No.	Lead-free
14	35363-1460	Yes
15	35363-1560	
17	35363-1760	
20	35363-2060	

2.00mm (.079") Pitch

Pitch	Series		Tradename	Description
2.00mm (.079")	50011		MicroBlade™	Female Crimp Terminal
	51004			Housing
	53014			Header
	53015			Header
	53025			Header, Bottom Entry
	59370		iLock™	Female Crimp Terminal
	51216			Housing
	51217			Retainer
	55487			Header
	50034		Board-In	Crimp Terminal
	51015			Housing
	35021			Crimp Terminal
	35023			Housing
	52418		Board-to-Board	Receptacle
	53290			Header
	47282		Pogo Pin	Connector

2.00mm (.079") Pitch MicroBlade™ Wire-to-Board Crimp Terminal

50011



Order No.	Packaging	Lead-free
50011-8000	Reel	Yes
50011-8100	Bag	

Features and Benefits
- Box design provides 2 points of contact and terminal protection
- Locking tang for secure housing retention

Reference Information
Use With: 51004
Designed In: Millimeters

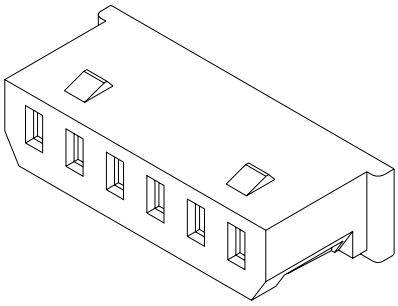
Electrical
Voltage: 125V max.
Current:

AWG	24	26	28	30
	2.0A	1.5A	1.0A	0.5A

Physical
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 24 to 30 AWG
Insulation Range: 1.40mm dia. max.
Strip Length: 1.60 to 2.10mm

2.00mm (.079") Pitch MicroBlade™ Wire-to-Board Housing

51004



Features and Benefits
- Sizes 2 to 15 circuits
- Housing lance provides extra terminal retention
- Friction lock provides secure mating

Reference Information
Product Specification: PS-51004-002
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 53014, 53015 and 53025
Use With: 50011
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current: 2.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

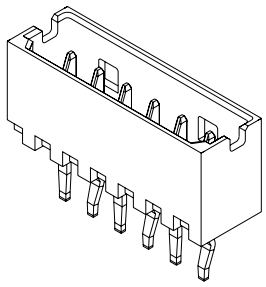
Physical
Housing: PBT, UL 94V-0

Circuits	Order No.
2	51004-0200
3	51004-0300
4	51004-0400
5	51004-0500
6	51004-0600
7	51004-0700
8	51004-0800

Circuits	Order No.
9	51004-0900
10	51004-1000
11	51004-1100
12	51004-1200
13	51004-1300
14	51004-1400
15	51004-1500

2.00mm (.079") Pitch MicroBlade™ Wire-to-Board Header

53014
Vertical



Features and Benefits
- Sizes 2 to 15 circuits
- Locking windows provide secure mating

Reference Information
Product Specification: PS-51004-002
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51004
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	24	26	28	30
	2.0A	1.5A	1.0A	0.5A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

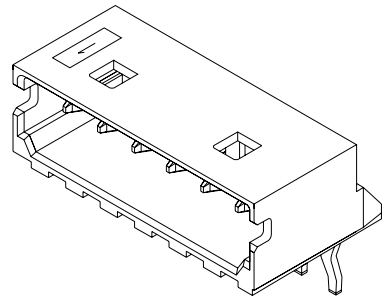
Physical
Housing: Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin

Circuits	Order No.	Lead-free
2	53014-0210	Yes
3	53014-0310	
4	53014-0410	
5	53014-0510	
6	53014-0610	
7	53014-0710	
8	53014-0810	

Circuits	Order No.	Lead-free
9	53014-0910	Yes
10	53014-1010	
11	53014-1110	
12	53014-1210	
13	53014-1310	
14	53014-1410	
15	53014-1510	

2.00mm (.079") Pitch MicroBlade™ Wire-to-Board Header

53015
Right Angle



Features and Benefits
- Sizes 2 to 15 circuits
- Locking windows provides secure mating

Reference Information
Product Specification: PS-51004-002
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51004
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	24	26	28	30
	2.0A	1.5A	1.0A	0.5A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

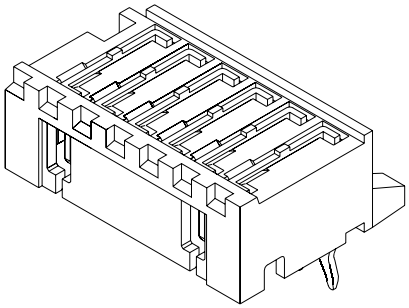
Physical
Housing: Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin

Circuits	Order No.	Lead-free
2	53015-0210	Yes
3	53015-0310	
4	53015-0410	
5	53015-0510	
6	53015-0610	
7	53015-0710	
8	53015-0810	

Circuits	Order No.	Lead-free
9	53015-0910	Yes
10	53015-1010	
11	53015-1110	
12	53015-1210	
13	53015-1310	
14	53015-1410	
15	53015-1510	

2.00mm (.079") Pitch MicroBlade™ Wire-to-Board Header

53025
Bottom Entry



Features and Benefits
- Sizes 2 to 10 circuits
- Locking windows provide secure mating

Reference Information
Product Specification: PS-51004-002
Packaging: Tray
Mates With: 51004
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	24	26	28	30
	2.0A	1.5A	1.0A	0.5A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

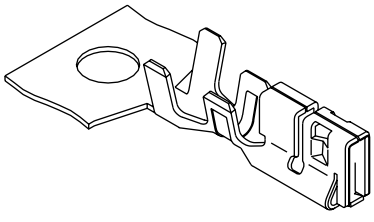
Physical
Housing: Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin

Circuits	Order No.	Lead-free
2	53025-0210	Yes
3	53025-0310	
4	53025-0410	
5	53025-0510	
6	53025-0610	
7	53025-0710	
8	53025-0810	
9	53025-0910	
10	53025-1010	

www.molex.com/product/microblade.html

2.00mm (.079") Pitch Wire-to-Board Crimp Terminal

59370
Female



Features and Benefits
- Two points of contact for good electrical reliability
- Double-box design for retainer support

Reference Information
Use With: 51216
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 2.5A max.

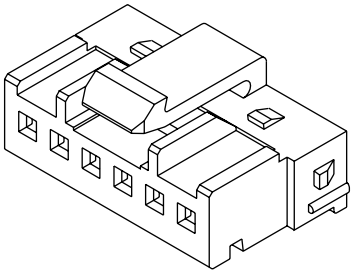
Physical
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 22 to 28 AWG
Insulation Diameter: 1.50mm (.059") max.
Strip Length: 1.60 to 2.00mm (.063 to .079")

Order No.	Packaging	Lead-free
59370-8000	Reel	Yes
59370-8100	Bag	

2.00mm (.079") Pitch Wire-to-Board Housing

51216

Positive Lock



Features and Benefits

- Sizes 2 to 15 circuits
- Internal push-type positive lock provides secure retention, easy mating and latch protection during harness assembly
- Side ribs for latch protection and polarization
- Housing lance provides secure terminal retention

Reference Information

Product Specification: PS-51216-007
Packaging: Bag
Mates With: 55487 and 55755
Use With: 59370 terminal and 51217 retainer
Designed In: Millimeters

Electrical

Voltage: 250V max.
Current: 2.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical

Housing: PBTP, UL 94V-0

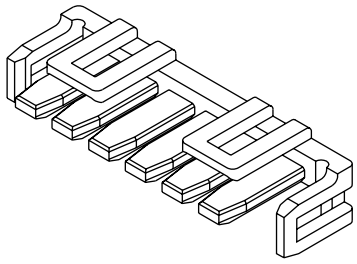
Circuits	Order No.
2	51216-0200
4	51216-0400
5	51216-0500
6	51216-0600
7	51216-0700
8	51216-0800
9	51216-0900

Circuits	Order No.
10	51216-1000
11	51216-1100
12	51216-1200
13	51216-1300
14	51216-1400
15	51216-1500

www.molex.com/customer.html?seriesNumber=51216

2.00mm (.079") Pitch Wire-to-Board Retainer

51217



Features and Benefits

- Sizes 2 to 15 circuits
- Provides additional terminal retention
- Space-saving design snaps easily onto housing

Reference Information

Product Specification: PS-51216-007
Packaging: Bag
Use With: 51216
Designed In: Millimeters

Physical

Housing: Gray PBTP, UL 94V-0

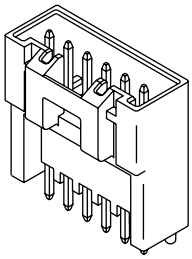
Circuits	Order No.
2	51217-0205
4	51217-0405
5	51217-0505
6	51217-0605
7	51217-0705
8	51217-0805
9	51217-0905

Circuits	Order No.
10	51217-1005
11	51217-1105
12	51217-1205
13	51217-1305
14	51217-1405
15	51217-1505

2.00mm (.079") Pitch Wire-to-Board Header

55487

Vertical Fully Shrouded



Features and Benefits

- Sizes 2 to 15 circuits
- Internal push-type positive lock provides secure retention, polarization and easy mating/unmating
- Potting type used for sealing components in white goods applications
- Polarization pegs assist placement

Reference Information

Product Specification: PS-51216-007
Packaging: Tray
Mates With: 51216
Designed In: Millimeters

Electrical

Voltage: 250V max.
Current: 2.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical

Housing: Nylon, UL 94V-0
Contact: Brass
Plating: Tin over Copper

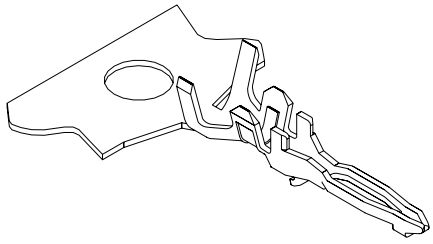
Circuits	Order No.	Lead-free
2	55487-0219	Yes
3	55487-0319	
4	55487-0419	
5	55487-0519	
6	55487-0619	
7	55487-0719	
8	55487-0819	

Circuits	Order No.	Lead-free
9	55487-0919	Yes
10	55487-1019	
11	55487-1119	
12	55487-1219	
13	55487-1319	
14	55487-1419	
15	55487-1519	

www.molex.com/customer.html?seriesNumber=55487

2.00mm (.079") Pitch Board-In Connector Crimp Terminal

50034



Order No.	Packaging	Lead-free
50034-8000	Reel	Yes
50034-8100	Bag	

Features and Benefits

- Locking tang secures terminal to housing

Reference Information

Use With: 51015
Designed In: Millimeters

Electrical

Voltage: 125V max.
Current:

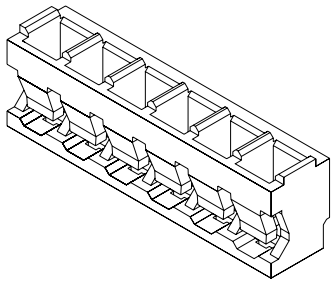
AWG	26	28	30
	2.0A	1.5A	1.0A

Physical

Contact: Phosphor Bronze
Plating: Tin
Wire Range: 26 to 30 AWG
Insulation Range: 1.40mm dia. max.
Strip Length: 1.40 to 1.90mm

2.00mm (.079") Pitch Board-In Connector Housing

51015



Features and Benefits
- Sizes 2 to 15 circuits
- Low profile of 3.8mm
- Locking windows secure terminal to housing

Reference Information
Product Specification: PS-51015-002
Packaging: Bag
Use With: 50034
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	26	28	30
	2.0A	1.5A	1.0A

Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0

Circuits	Order No.
2	51015-0200
3	51015-0300
4	51015-0400
5	51015-0500
6	51015-0600
7	51015-0700
8	51015-0800

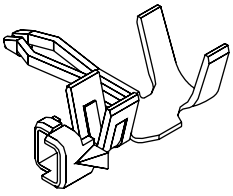
Circuits	Order No.
9	51015-0900
10	51015-1000
11	51015-1100
12	51015-1200
13	51015-1300
14	51015-1400
15	51015-1500

www.molex.com/product/board_in.html

2.00/2.50mm (.079/.098") Board-In Connector Crimp Terminal

35021

Right Angle



Features and Benefits
- Very low profile
- Wide wire range (24 to 30 AWG)
- Locking tab secures terminal to housing
- Diamond-shaped PC tail ensures secure PCB retention

Reference Information
Packaging: Reel
UL File No.: E29179
CSA File No.: LR19980
Use With: 35023 housings
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current:

AWG	24	26	28	30
	2.5A	1.5A	1.0A	0.5A

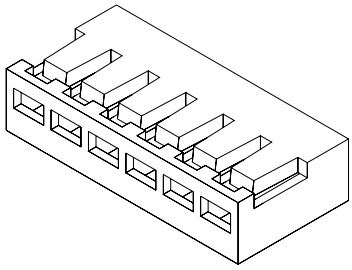
Physical
Contact: See Table
Plating: See Table
Wire Range: 24 to 30 AWG
Insulation Range: 35023—1.50mm dia. max. (24 AWG)

Order No.	Contact Material	Plating	Lead-free
35021-1201	Brass	Pre-Tin	Yes
35021-1301	Phosphor Bronze		
35021-1360		Post-Tin	

2.00mm (.079") Pitch Board-In Connector Housing

35023

Right Angle



Features and Benefits

- Sizes 2 to 16 circuits
- Low profile (2.85mm)
- Terminal locking window
- Solders directly to PCB

Reference Information

Product Specification: PS-35023-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Use With: 35021 and 35044 terminal
Designed In: Millimeters

Electrical

Voltage: 125V max.
Current: 2.5A max.
Contact Resistance: 5 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical

Housing: Nylon, UL 94V-0

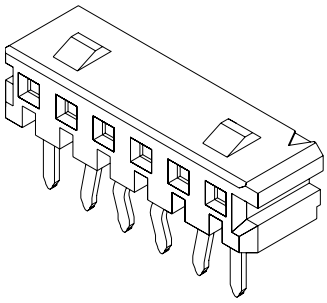
Circuits	Order No.
2	35023-0002
3	35023-0003
4	35023-0004
5	35023-0005
6	35023-0006

Circuits	Order No.
7	35023-0007
8	35023-0008
9	35023-0009
10	35023-0010
11	35023-0011

Circuits	Order No.
12	35023-0012
13	35023-0013
14	35023-0014
16	35023-0016

2.00mm (.079") Pitch Board-to-Board Receptacle

52418
Right Angle



Features and Benefits
- Sizes 3 to 20 circuits

Reference Information
Production Specification: PS-52418-003
Packaging: Tray and Tube
Mates With: 53290
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current: 1.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Glass-filled PBT, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin

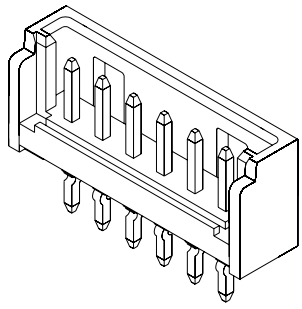
Circuits	Order No.		Lead-free
	Tray	Tube	
3	52418-0310	52418-0390	Yes
4	52418-0410	52418-0490	
5	52418-0510	52418-0590	
6	52418-0610	52418-0690	
7	52418-0710	52418-0790	
8	52418-0810	-	
9	52418-0910	52418-0990	
10	52418-1010	-	
11	52418-1110	52418-1190	

Circuits	Order No.		Lead-free
	Tray	Tube	
12	52418-1210	52418-1290	Yes
13	52418-1310	52418-1390	
14	52418-1410	52418-1490	
15	52418-1510	52418-1590	
16	52418-1610	52418-1690	
17	52418-1710	52418-1790	
18	52418-1810	52418-1890	
19	52418-1910	-	
20	52418-2010	52418-2090	

www.molex.com/customer.html?seriesNumber=52418

2.00mm (.079") Pitch Board-to-Board Plug

53290
Vertical



Features and Benefits
- Sizes 3 to 20 circuits
- Friction lock and kinked tails provide additional mating and PCB retention

Reference Information
Production Specification: PS-52418-003
Packaging: Tube (XX71)/Tray (XX80)
Mates With: 52418
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current: 1.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Glass-filled PBT, UL 94V-0
Contact: Brass
Plating: Tin

Circuits	Order No.		Lead-free
	Without Kinked Tail	With Kinked Tail	
3	53290-0371	53290-0380	Yes
4	-	53290-0480	
5	53290-0571	53290-0580	
6	53290-0671	53290-0680	
7	-	53290-0780	
8	53290-0871	53290-0880	
9	53290-0971	53290-0980	
10	53290-1071	53290-1080	
11	53290-1171	53290-1180	

Circuits	Order No.		Lead-free
	Without Kinked Tail	With Kinked Tail	
12	53290-1271	53290-1280	Yes
13	53290-1371	53290-1380	
14	53290-1471	53290-1480	
15	53290-1571	53290-1580	
16	-	53290-1680	
17	53290-1771	53290-1780	
18	53290-1871	53290-1880	
19	-	53290-1980	
20	53290-2071	53290-2080	

2.00mm (.079") Pitch Dual Row Custom Headers

Features and Benefits

- Sizes 4 to 50 circuits
- End-to-end stackable versions for modular configurations
- Optional voided pin version for polarization to the mating part available
- Optional kinked PC tail are available for through hole and right angle versions
- Available with and without locating pegs
- Pick-and-place cap versions available
- Tape and reel packaging options available

Reference Information

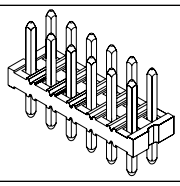
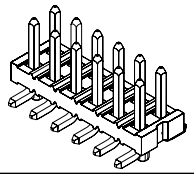
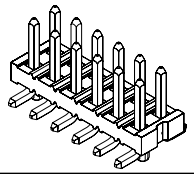
Product Specification: PS-87761-100
Packaging: Tray, tube or bag
Mates With: Milli-Grid 2.00mm Receptacles
Designed In: Millimeters

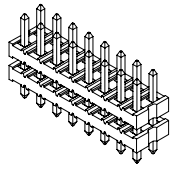
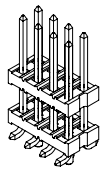
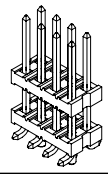
Electrical

Voltage: 125V
Current: 2.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 50 Megohms min.

Physical

Housing: Black high-temperature nylon, UL94V-0
Contact: Copper Alloy, 0.50mm square
Plating: Tin, Gold Flash, 10µ" Select Gold, 15µ" Select Gold and 30µ" Select Gold
PCB Thickness: 1.60+/-0.10mm

	Single Body Options	Series
	Vertical Through Hole	87758
	Vertical SMT	87759
	Vertical SMT with Pegs	87759

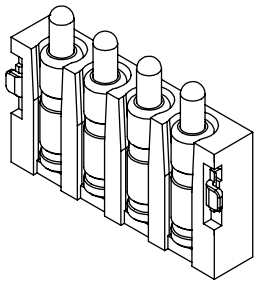
	Dual Body Options	Series
	Vertical Through Hole	87761
	Vertical SMT	87762
	Vertical SMT with Pegs	87762

Contact factory for 2mm single row headers
Contact factory for standard versions

2.00mm (.079") Pitch Pogo Pin Connector

47282

Right Angle, Surface Mount



Circuits	Order No.	Lead-free
4	47282-0001	Yes

Features and Benefits

- Speaker, battery, vibrator or antenna contact applications
- Small footprint saves PCB real estate and provides more flexible design
- SMT lead-free configuration
- Initial height at 6.60mm (.260") and full-stroke working height at 5.60mm (.220")

Reference Information

Product Specification: PS-47282-001
Packaging: Tape on reel
Designed In: Millimeters

Electrical

Voltage: 12V DC
Current: 3.0A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 100 Megohms min.

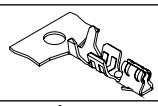
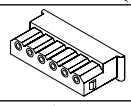
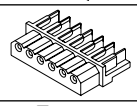
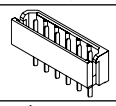
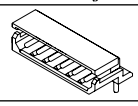
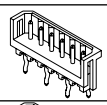
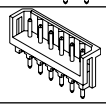
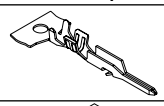
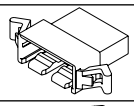
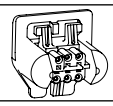
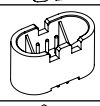
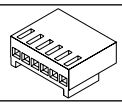
Mechanical

Normal Force: 0.83N
Durability: 20,000 cycles

Physical

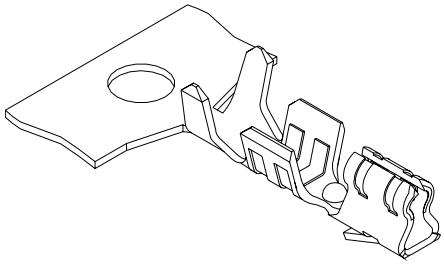
Housing: Glass-filled high-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—40µ" Gold
Solder Tail Area—Gold
Underplating: Nickel

2.50mm (.098") Pitch

Pitch	Series		Tradename	Description
2.50mm (.098")	5263		Mini-SPOX™	Female Crimp Terminal
	5264-N			Housing
	42219			IDT Connector
	5267-NA			Header
	5268-NA			Header
	42249			Header
	42267			Header
	5241			Male Crimp Terminal
	5240			Plug Housing
	45579		SPOX BMI™	Receptacle
	45578			PCB Header
	5051-N		KK®	Crimp Terminal Housing

2.50mm (.098") Pitch SPOX™ Wire-to-Board Crimp Terminal

5263
Spring Box



Features and Benefits
- Very low profile
- Anti-fishhooking design
- Box protects pin contact area from contamination during handling

Reference Information
Use With: 5264 housings
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current:

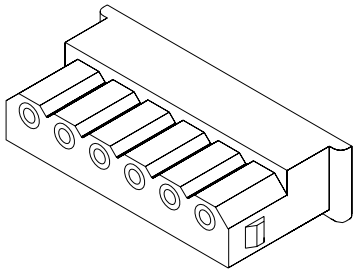
AWG	22	24	26	28
	3.0A	2.5A	2.0A	1.5A

Physical
Contact: Phosphor Bronze
Plating: Tin

Order No.	Packaging	Engineering No.	Wire Range AWG	Insulation Diameter	Lead-free
08-70-1039	Reel	5263PBT	22-28	1.90 (.075) max.	Yes
08-70-1040	Bag	5263PBTL			

2.50mm (.098") Pitch SPOX™ Wire-to-Board Crimp Terminal Housing

5264-N
Shrouded



Features and Benefits
- Sizes 2 to 15 circuits
- Very low profile
- Molded-in pull tabs
- Friction lock

Reference Information
Product Specification: PS-5264-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5267-NA-X and 5268-NA
Use With: 5263 terminals
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current:

AWG	22	24	26	28
	3.0A	2.5A	2.0A	1.5A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

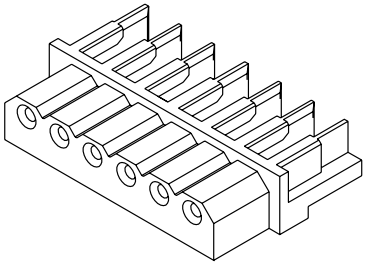
Physical
Housing: Nylon, UL 94V-0

Circuits	Order No.
2	50-37-5023
3	50-37-5033
4	50-37-5043
5	50-37-5053
6	50-37-5063
7	50-37-5073
8	50-37-5083

Circuits	Order No.
9	50-37-5093
10	50-37-5103
11	50-37-5113
12	50-37-5123
13	50-37-5133
14	50-37-5143
15	50-37-5153

2.50mm (.098") Pitch SPOX™ Wire-to-Board Connector

42219
IDT
Spring Box



Features and Benefits
- In-line IDT termination
- Integral crimped strain relief
- Connections supplied on terminal carrier strip for application tooling

Reference Information
Product Specification: PS-42219-0001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 42249 and 42267 headers
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

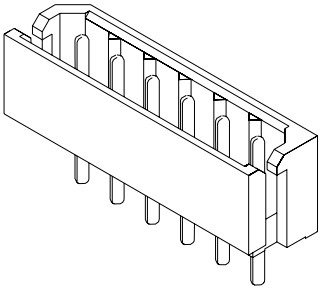
Physical
Housing: Glass-filled PBT, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin
Wire Accommodation: 24 AWG solid or stranded with topcoat or 26 AWG stranded with topcoat

Circuits	Order No.	Lead-free
2	22-43-3020	Yes
3	22-43-3030	
4	22-43-3040	
5	22-43-3050	
6	22-43-3060	
7	22-43-3070	
8	22-43-3080	

Circuits	Order No.	Lead-free
9	22-43-3090	Yes
10	22-43-3100	
11	22-43-3110	
12	22-43-3120	
13	22-43-3130	
14	22-43-3140	
15	22-43-3150	

2.50mm (.098") Pitch SPOX™ Wire-to-Board Header

5267-NA-X
Vertical
Fully Shrouded



Features and Benefits
- Sizes 2 to 12 circuits
- Polarized
- Friction lock

Reference Information
Product Specification: PS-5264-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5264-N
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current:

AWG	22	24	26	28
	3.0A	2.5A	2.0A	1.5A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

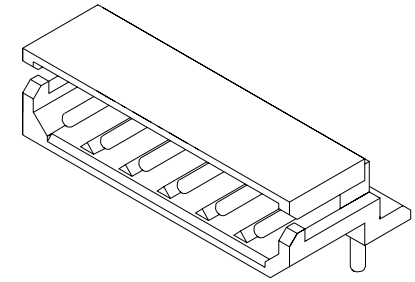
Physical
Housing: Nylon, UL 94V-0
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
2	99-99-0986	Yes
3	99-99-0987	
4	99-99-0988	
5	99-99-0989	
6	99-99-0990	
7	99-99-0991	

Circuits	Order No.	Lead-free
8	99-99-0992	Yes
9	99-99-0993	
10	99-99-0994	
11	99-99-0995	
12	99-99-0996	

2.50mm (.098") Pitch SPOX™ Wire-to-Board Header

5268-NA
Right Angle Fully Shrouded



Features and Benefits
- Sizes 2 to 10 circuits
- Polarized
- Friction lock

Reference Information
Product Specification: PS-5264-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5264-N
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current:

AWG	22	24	26	28
	3.0A	2.5A	2.0A	1.5A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0
Contact: Brass
Plating: Tin over Copper

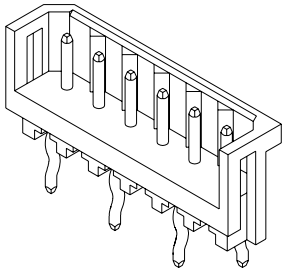
Circuits	Order No.	Lead-free
2	22-05-7025	Yes
3	22-05-7035	
4	22-05-7045	
5	22-05-7055	
6	22-05-7065	

Circuits	Order No.	Lead-free
7	22-05-7075	Yes
8	22-05-7085	
9	22-05-7095	
10	22-05-7105	

www.molex.com/product/spox.html

2.50mm (.098") Pitch SPOX™ Wire-to-Board Header

42249
Shrouded, Staggered Footprint



Features and Benefits
- Polarized to mating connector
- Staggered footprint prevents solder bridging
- Standard kinked PC tails for retention to PC board

Reference Information
Product Specification: PS-42219-0001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 42219 connectors
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Glass-filled PBT, UL 94V-0
Contact: Brass
Plating: Tin over Nickel

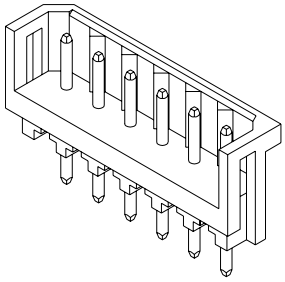
Circuits	Order No.	Lead-free
2	22-43-6020	Yes
3	22-43-6030	
4	22-43-6040	
5	22-43-6050	
6	22-43-6060	
7	22-43-6070	
8	22-43-6080	

Circuits	Order No.	Lead-free
9	22-43-6090	Yes
10	22-43-6100	
11	22-43-6110	
12	22-43-6120	
13	22-43-6130	
14	22-43-6140	
15	22-43-6150	

2.50mm (.098") Pitch SPOX™ Wire-to-Board Header

42267

Shrouded, In-Line Footprint



Features and Benefits

- Polarized to mating connector
- Standard kinked PC tails for retention to PC board

Reference Information

Product Specification: PS-42219-0001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 42219 connectors
Designed In: Millimeters

Electrical

Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical

Housing: Glass-filled PBT, UL 94V-0
Contact: Brass
Plating: Tin over Nickel

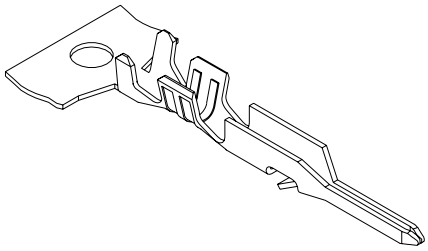
Circuits	Order No.	Lead-free
2	22-43-8020	Yes
3	22-43-8030	
4	22-43-8040	
5	22-43-8050	
6	22-43-8060	
7	22-43-8070	
8	22-43-8080	

Circuits	Order No.	Lead-free
9	22-43-8090	Yes
10	22-43-8100	
11	22-43-8110	
12	22-43-8120	
13	22-43-8130	
14	22-43-8140	
15	22-43-8150	

www.molex.com/customer.html?seriesNumber=42267

2.50mm (.098") Pitch SPOX™ Wire-to-Wire Male Crimp Terminal

5241



Features and Benefits

- Rigid contact

Reference Information

Mates With: 5103 terminals
Use With: 5102-N and 51171
Designed In: Millimeters

Electrical

Voltage: 250V max.
Current:

AWG	22	24	26	28
	3.0A	2.5A	2.0A	1.5A

Physical

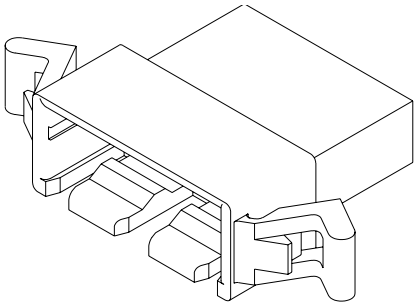
Contact: Brass
Plating: Tin

Order No.	Packaging	Wire Gauge AWG	Insulation Diameter	Lead-free
08-70-0102	Reel	22-28	1.90mm max.	Yes
08-70-0103	Bag			

Recommended wire range assumes stranded wire

2.50mm (.098") Pitch SPOX™ Wire-to-Wire Plug Housing

5240



Features and Benefits
- Sizes 2 to 12 circuits
- With and without mounting ears

Reference Information
Product Specification: PS-51191-003, PS-51191-0035
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5102-N and 51191 housings
Use With: 5241 terminals
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current:

AWG	22	24	26	28
	3.0A	2.5A	2.0A	1.5A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0

Circuits	Order No.	
	With Ears	Without Ears
2	29-11-0022	29-11-0023
3	29-11-0032	29-11-0033
4	29-11-0042	29-11-0043
5	29-11-0052	29-11-0053
6	29-11-0062	29-11-0063
7	29-11-0072	29-11-0073

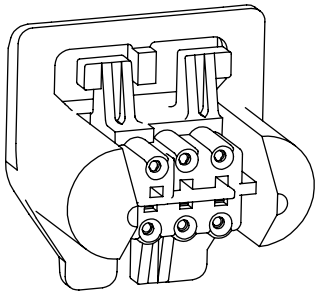
Circuits	Order No.	
	With Ears	Without Ears
8	29-11-0082	29-11-0083
9	29-11-0092	29-11-0093
10	29-11-0102	29-11-0103
11	29-11-0112	29-11-0113
12	29-11-0122	29-11-0123

www.molex.com/product/spox.html

2.50mm (.098") Pitch SPOX BMI™ Crimp Terminal Housing Receptacle

45579

Panel Mount



Features and Benefits
- Panel mounting feature permits up to 3.00mm (.120") misalignment in horizontal and vertical directions permiting blind-mating of products as connectors can self-align
- First-mate/last-break circuits provide sequential engagement of contacts for design flexibility
- Robust alignment features virtually eliminate contact damage

Reference Information
Product Specification: PS-45579-001
UL File No.: E29179
CSA File No.: LR19980
Mates With: 45578 and 45626
Use With: 5263

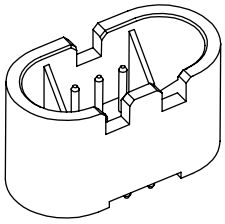
Mechanical
Locking: None

Physical
Housing: Unfilled polyester, UL 94V-0

Order No.	Lead-free
45579-0001	Yes

2.50mm (.098") Pitch SPOX BMI™ Wire-to-Wire and Wire-to-Board PCB Header

45578
Vertical



Features and Benefits
- Headers are molded in LCP high-temperature plastic, which meets lead-free processing requirements
- Robust alignment features virtually eliminate contact damage

Reference Information
Product Specification: PS-45579-001
UL File No.: E29179
CSA File No.: LR19980
Mates With: 45579

Electrical
Voltage: 250V
Current: 3.0A max.
Contact Resistance: 20 milliohms max.

Mechanical
Durability: 25 cycles

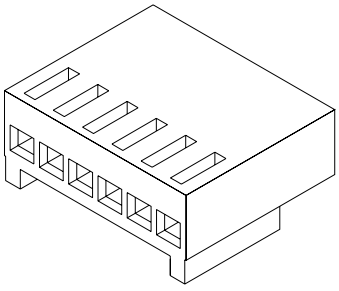
Physical
Housing: Glass-filled LCP, UL 94V-0
Contact: Copper Alloy

Order No.	Plating	Underplating	Lead-free
45578-0001	Tin	Nickel	Yes
45578-0002			

www.molex.com/product/wb/spoxbmi.html

2.50mm (.098") Pitch KK® Crimp Terminal Housing

5051-N
Polarized



Features and Benefits
- Sizes 2 to 15 circuits
- Molded friction lock
- Optional locking ramp version
- Stackable end-to-end

Reference Information
Product Specification: PS-5051-004
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5045-NA and 5046-NA
Use With: 5159 terminals
Designed In: Millimeters

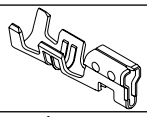
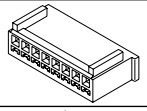
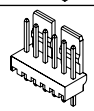
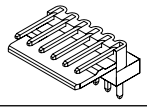
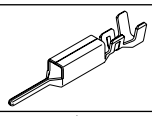
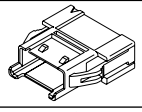
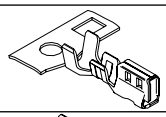
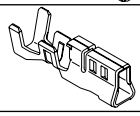
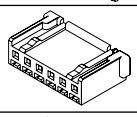
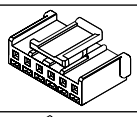
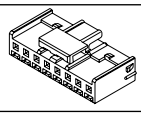
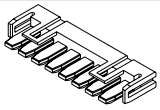
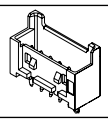
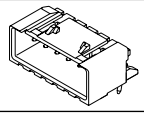
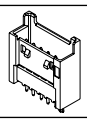
Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0

Circuits	Order No.
2	22-01-1022
3	22-01-1032
4	22-01-1042
5	22-01-1052
6	22-01-1062
7	22-01-1072
8	22-01-1082

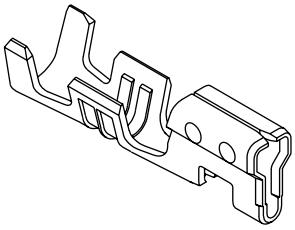
Circuits	Order No.
9	22-01-1092
10	22-01-1102
11	22-01-1112
12	22-01-1122
13	22-01-1132
14	22-01-1142
15	22-01-1152

2.50mm (.098") Pitch

Pitch	Series		Tradename	Description
2.50mm (.098")	50802		Mini-Latch™	Female Crimp Terminal
	51191			Receptacle
	5045			Header
	5046			Header
	50837		Mini-Lock™	Male Crimp Terminal
	51198			Plug
	50351			Crimp Terminal
	50752			Female Crimp Terminal
	51102			Housing
	51103			Housing
	51163			Housing
	51164			Terminal Retainer
	53375			Header
	53426			Header
	53517			Header

2.50mm (.098") Pitch Mini-Latch™ Wire-to-Board and Wire-to-Wire Crimp Terminal

50802
Female



Features and Benefits
- Box design protects contact area
- Four points of contact for good signal integrity

Reference Information
Packaging: Reel
Use With: 51191
Designed In: Millimeters

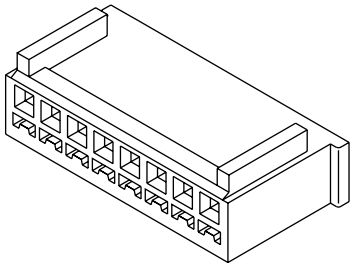
Electrical
Voltage: 250V max.
Current: 3.0A max.

Physical
Contact: 50802-8XXX Phosphor Bronze
50802-9XXX Brass
Plating: Tin
Wire Range: 22 to 28 AWG
Insulation Diameter:
1.15 to 1.90mm (.045 to .075") dia.
Strip Length: 2.60 to 3.20mm (.102 to .126")

Order No.	Packaging	Lead-free
50802-9001	Reel	Yes
50802-9101	Bag	
50802-8000	Reel	
50802-8100	Bag	

2.50mm (.098") Pitch Mini-Latch™ Wire-to-Board and Wire-to-Wire Receptacle

51191



Features and Benefits
- Sizes 2 to 15 circuits
- Guide rails facilitate mating
- Friction lock for mating retention
- Molded pull-tabs enable easy un-mating

Reference Information
Product Specification: Wire-to-Board—PS-51191-002
Wire-to-Wire—PS-51191-003
Packaging: Bag
UL File No.: E29179
Mates With: 5045, 5046 and 5240
Use With: 50802
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

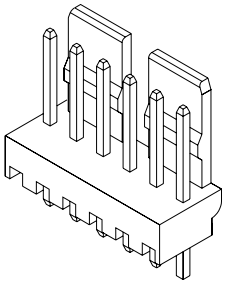
Physical
Housing: Nylon, UL 94V-0

Circuits	Order No.
2	51191-0200
3	51191-0300
4	51191-0400
5	51191-0500
6	51191-0600
7	51191-0700
8	51191-0800

Circuits	Order No.
9	51191-0900
10	51191-1000
11	51191-1100
12	51191-1200
13	51191-1300
14	51191-1400
15	51191-1500

2.50mm (.098") Pitch Wire-to-Board Header

5045
Vertical, Square Pin Polarizing Lock



Features and Benefits
- Sizes 2 to 20 circuits
- 0.64mm (.025") square wire pins

Reference Information
Product Specification: PS-5051-004, PS-51191-002
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5051 and 51191
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current:

AWG	22	24	26	28
	3.0A	2.5A	2.0A	1.5A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

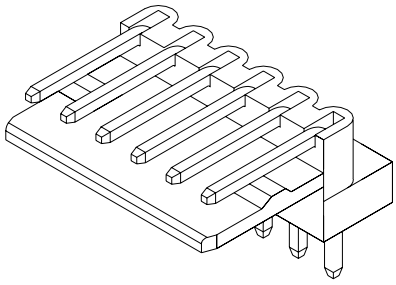
Physical
Housing: Nylon, UL 94V-0
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
2	22-04-1021	Yes
3	22-04-1031	
4	22-04-1041	
5	22-04-1051	
6	22-04-1061	
7	22-04-1071	
8	22-04-1081	
9	22-04-1091	
10	22-04-1101	
11	22-04-1111	

Circuits	Order No.	Lead-free
12	22-04-1121	Yes
13	22-04-1131	
14	22-04-1141	
15	22-04-1151	
16	22-04-1161	
17	22-04-1171	
18	22-04-1181	
19	22-04-1191	
20	22-04-1201	

2.50mm (.098") Pitch Mini-Latch™ Wire-to-Board Header

5046
Right Angle Friction Lock



Features and Benefits
- Sizes 2 to 15 circuits
- 0.64mm (.025") square wire pins

Reference Information
Product Specification: PS-5051-004, PS-51191-002
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5051 and 51191
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current:

AWG	22	24	26	28
	3.0A	2.5A	2.0A	1.5A

Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

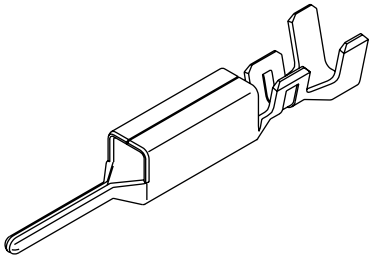
Physical
Housing: Nylon, UL 94V-0
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
2	22-05-1022	Yes
3	22-05-1032	
4	22-05-1042	
5	22-05-1052	
6	22-05-1062	
7	22-05-1072	
8	22-05-1082	

Circuits	Order No.	Lead-free
9	22-05-1092	Yes
10	22-05-1102	
11	22-05-1112	
12	22-05-1122	
13	22-05-1132	
14	22-05-1142	
15	22-05-1152	

2.50mm (.098") Pitch Mini-Lock™ Wire-to-Wire Crimp Terminal

50837
Male



Order No.	Packaging	Lead-free
50837-8000	Reel	Yes
50837-8100	Bag	

Features and Benefits
- Locking window provides secure mating retention to housing lance

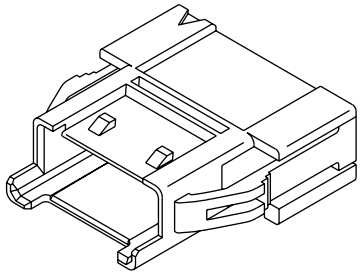
Reference Information
Product Specification: PS-51198-003
Use With: 51198
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.

Physical
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 22 to 28 AWG
Insulation Diameter: 1.15 to 1.80mm (.045 to .071")
Strip Length: 2.30 to 2.80mm (.091 to .110")

2.50mm (.098") Pitch Mini-Lock™ Wire-to-Wire Plug

51198
Positive Lock Panel Mount



Features and Benefits
- Sizes 2 to 15 circuits
- One-piece mounting ears provide easy panel attachment and secure retention
- Guide ramp helps facilitate mating
- Housing locking tang for secure terminal retention
- Polarized for correct mating

Reference Information
Product Specification: PS-51198-003
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51103
Use With: 50837
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

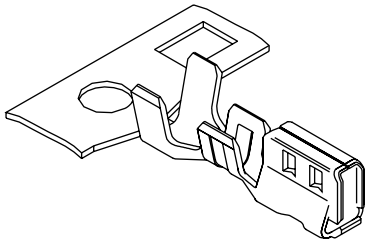
Physical
Housing: White PBT, UL 94V-0

Circuits	Order No.
2	51198-0200
3	51198-0300
4	51198-0400
5	51198-0500
6	51198-0600
7	51198-0700
8	51198-0800

Circuits	Order No.
9	51198-0900
10	51198-1000
11	51198-1100
12	51198-1200
13	51198-1300
14	51198-1400
15	51198-1500

2.50mm (.098") Pitch Mini-Lock™ Wire-to-Board Crimp Terminal

50351



Order No.	Packaging	Lead-free
50351-8000	Reel	Yes
50351-8100	Bag	

Features and Benefits
- Four points of contact
- Housing lance provides secure terminal retention

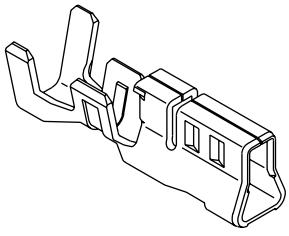
Reference Information
Use With: 51102 and 51103
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.

Physical
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 22 to 28 AWG
Insulation Range: 1.15 to 1.80mm dia.
Strip Length: 2.30 to 2.80mm

2.50mm (.098") Pitch Mini-Lock™ Wire-to-Board Crimp Terminal

50752
Female



Order No.	Packaging	Lead-free
50752-8000	Reel	Yes

Features and Benefits
- Four points of contact
- Terminal design locks into housing lance

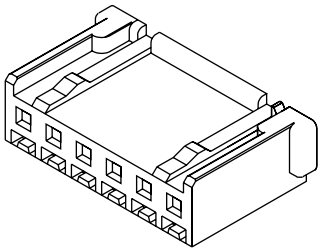
Reference Information
Mates With: 51103 and 51163
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3A max.

Physical
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 22 to 28 AWG
Insulation Range: 1.15 to 1.80mm (.045 to .070") dia.
Strip Length: 2.00 to 2.50mm (.079 to .098")

2.50mm (.098") Pitch Mini-Lock™ Wire-to-Board Housing

51102
Friction Lock Type



Features and Benefits
- Sizes 2 to 15 circuits
- Friction lock provides secure mating retenion
- Pull tabs on top and sides enable easy extraction
- Housing lance provides secure terminal retention

Reference Information
Product Specification: Refer to Mates With items
Packaging: Bag
Mates With: 53375 and 53426
Use With: 50351
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

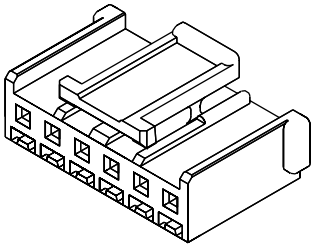
Physical
Housing: White PBTP, UL 94V-0

Circuits	Order No.
2	51102-0200
3	51102-0300
4	51102-0400
5	51102-0500
6	51102-0600
7	51102-0700
8	51102-0800

Circuits	Order No.
9	51102-0900
10	51102-1000
11	51102-1100
12	51102-1200
13	51102-1300
14	51102-1400
15	51102-1500

2.50mm (.098") Pitch Mini-Lock™ Wire-to-Board Housing

51103
Positive Lock Type



Features and Benefits
- Sizes 2 to 15 circuits
- Anti-overstress feature protects latch
- Pull tabs on top and side enable easy extraction
- Housing lance provides secure terminal retention

Reference Information
Product Specification: Refer to Mates With items
Packaging: Bag
UL File No.: E29179
Mates With: 53375, 53426, 53517 and 53608
Use With: 50351 and 50752
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: White PBTP, UL 94V-0

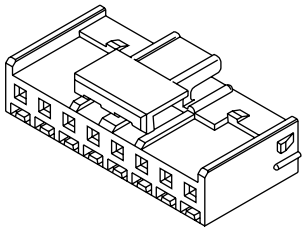
Circuits	Order No.
2	51103-0200
3	51103-0300
4	51103-0400
5	51103-0500
6	51103-0600
7	51103-0700
8	51103-0800

Circuits	Order No.
9	51103-0900
10	51103-1000
11	51103-1100
12	51103-1200
13	51103-1300
14	51103-1400
15	51103-1500

2.50mm (.098") Pitch Mini-Lock™ Wire-to-Board Housing

51163

Positive Lock Type



Features and Benefits

- Sizes 2 to 15 circuits
- Positive lock latch provides secure mating retention
- Anti-overstress feature protects latch
- Housing lance provides secure terminal retention

Reference Information

Product Specification: Refer to Mates With items
Packaging: Bag
Use With: 50752 and 50351 terminal and 51164 retainer
Mates With: 53375 and 53426
Designed In: Millimeters

Electrical

Voltage: 250V max.
Current: 3A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical

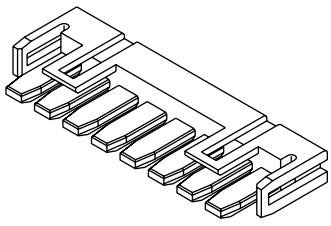
Housing: White PBTP, UL 94V-0

Circuits	Order No.
2	51163-0200
3	51163-0300
4	51163-0400
5	51163-0500
6	51163-0600
7	51163-0700
8	51163-0800

Circuits	Order No.
9	51163-0900
10	51163-1000
11	51163-1100
13	51163-1300
14	51163-1400
15	51163-1500

2.50mm (.098") Pitch Mini-Lock™ Wire-to-Board Terminal Retainer

51164



Features and Benefits

- Sizes 2 to 14 circuits
- Provides additional terminal retention and alignment

Reference Information

Product Specification: PS-51163-002
Packaging: Bag
Use With: 51163
Designed In: Millimeters

Physical

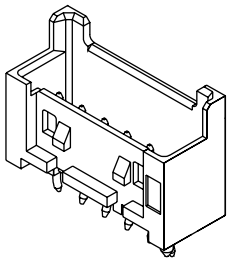
Housing: Gray PBTP, UL 94V-0

Circuits	Order No.
2	51164-0205
3	51164-0305
4	51164-0405
5	51164-0505
6	51164-0605
7	51164-0705

Circuits	Order No.
9	51164-0905
10	51164-1005
12	51164-1205
13	51164-1305
14	51164-1405

2.50mm (.098") Pitch Mini-Lock™ Wire-to-Board Header

53375
Vertical



Features and Benefits
- Sizes 2 to 15 circuits
- Locking ribs and holes accept either positive or friction-locking housings
- High guide walls protect terminals and facilitate mating
- Kinked PC tails provide secure PCB retention

Reference Information
Product Specification: PS-51103-005, PS-51103-007; PS-51163-002 (with 51164 retainer)
Packaging: Bag
Mates With: 51102, 51103 and 51163
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

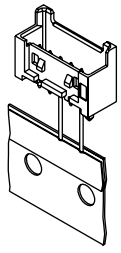
Physical
Housing: Glass-filled PBTP, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin

Circuits	Order No.	Lead-free
2	53375-0210	Yes
3	53375-0310	
4	53375-0410	
5	53375-0510	
6	53375-0610	
7	53375-0710	
8	53375-0810	

Circuits	Order No.	Lead-free
9	53375-0910	Yes
11	53375-1110	
12	53375-1210	
13	53375-1310	
14	53375-1410	
15	53375-1510	

2.50mm (.098") Pitch Mini-Lock™ Wire-to-Board Header

53375
Vertical
Radial Tape



Features and Benefits
- Sizes 2 to 8 circuits
- Radial tape enables high volume automatic placement of through hole components
- Locking ribs and holes accept either positive or friction-locking housings
- High guide walls protect terminals and facilitate mating
- Kinked PC tails provide secure PCB retention

Reference Information
Product Specification: PS-51103-005, PS-51103-007; PS-51163-002 (with 51164 retainer)
Packaging: Radial tape
Mates With: 51102, 51103 and 51163
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

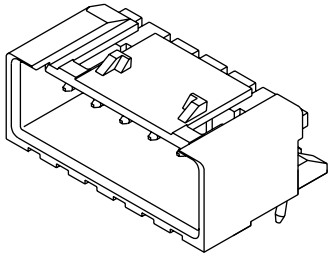
Physical
Housing: Glass-filled PBTP, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin

Circuits	Order No.	Lead-free
2	53375-0290	Yes
3	53375-0390	
4	53375-0490	
5	53375-0590	

Circuits	Order No.	Lead-free
6	53375-0690	Yes
7	53375-0790	
8	53375-0890	

2.50mm (.098") Pitch Mini-Lock™ Wire-to-Board Header

53426
Right Angle



Features and Benefits
- Sizes 2 to 15 circuits
- Locking ribs and holes accept either positive or friction-locking housings
- Shrouded design protects terminals and facilitates mating
- Kinked PC tails provide secure PCB retention

Reference Information
Product Specification: PS-51102-002, PS-51103-005, PS-51103-007; PS-51163-002 (with 51164 retainer)
Packaging: Tray
UL File No.: E29179
Mates With: 51102, 51103 and 51163
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

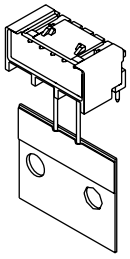
Physical
Housing: Glass-filled PBTP, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin

Circuits	Order No.	Lead-free
2	53426-0210	Yes
3	53426-0310	
4	53426-0410	
5	53426-0510	
6	53426-0610	
7	53426-0710	
8	53426-0810	

Circuits	Order No.	Lead-free
9	53426-0910	Yes
10	53426-1010	
11	53426-1110	
12	53426-1210	
13	53426-1310	
14	53426-1410	
15	53426-1510	

2.50mm (.098") Pitch Mini-Lock™ Wire-to-Board Header

53426
Right Angle Radial Tape



Features and Benefits
- Sizes 2 to 8 circuits
- Radial tape enables high volume automatic placement of through hole components
- Locking ribs and holes accept either positive or friction-locking housings
- Shrouded design protects terminals and facilitates mating
- Kinked PC tails provide secure PCB retention

Reference Information
Product Specification: PS-51102-002, PS-51103-005, PS-51103-007; PS-51163-002 (with 51164 retainer)
Packaging: Radial tape
UL File No.: E29179
Mates With: 51102, 51103 and 51163
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

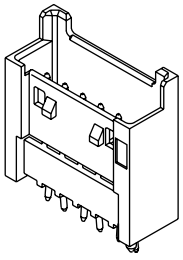
Physical
Housing: Glass-filled PBTP, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin

Circuits	Order No.	Lead-free
2	53426-0290	Yes
3	53426-0390	
4	53426-0490	
5	53426-0590	

Circuits	Order No.	Lead-free
6	53426-0690	Yes
7	53426-0790	
8	53426-0890	

2.50mm (.098") Pitch Mini-Lock™ Wire-to-Board Header

53517
Vertical



Features and Benefits
- Sizes 2 to 15 circuits
- Potting type used for sealing components in white goods applications
- Bottom ridge protects terminal signal area during potting

Reference Information
Product Specification: PS-51103-006, PS-51103-024
Packaging: Tray
UL File No.: E29179
Mates With: 51103
Designed In: Millimeters

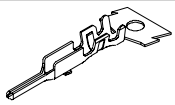
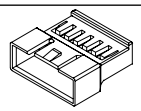
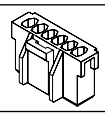
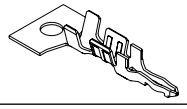
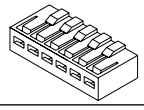
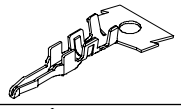
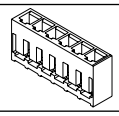
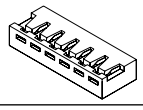
Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin

Circuits	Order No.	Lead-free
2	53517-0210	Yes
3	53517-0310	
4	53517-0410	
5	53517-0510	
6	53517-0610	
7	53517-0710	
8	53517-0810	

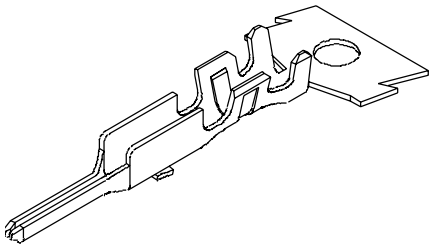
Circuits	Order No.	Lead-free
9	53517-0910	Yes
10	53517-1010	
11	53517-1110	
12	53517-1210	
13	53517-1310	
14	53517-1410	
15	53517-1510	

2.50mm (.098") Pitch

Pitch	Series		Tradename	Description
2.50mm (.098")	35053			Female Crimp Terminal
	35184			Plug
	35155			Housing
	50097		Board-In	Terminal
	51035			Housing
	35047			Terminal
	35164			Housing
	35022			Housing

2.50mm (.098") Pitch Wire-to-Wire Terminal

35053



Features and Benefits
- Rigid contact

Reference Information
Packaging: Reel
Mates With: 5103
Use With: 35184
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current:

AWG	22	24	26	28
	3.0A	2.5A	2.0A	1.5A

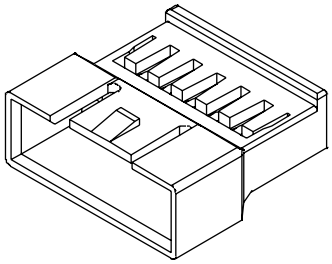
Physical
Contact: Brass
Plating: Tin
Insulation Diameter: 1.90mm (.075") max.
Wire Gauge: 22 to 28 AWG

Order No.	Lead-free
35053-9002	Yes

www.molex.com/customer.html?seriesNumber=35053

2.50mm (.098") Pitch Wire-to-Wire Plug

35184



Features and Benefits
- Sizes 2 to 14 circuits
- Locking windows secure terminal to housing
- Accepts 22 to 28 AWG

Reference Information
Product Specification: PS-35184
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 35155
Use With: 35053
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: PA, UL 94V-0

Circuits	Order No.
2	35184-0200
3	35184-0300
4	35184-0400
5	35184-0500
6	35184-0600

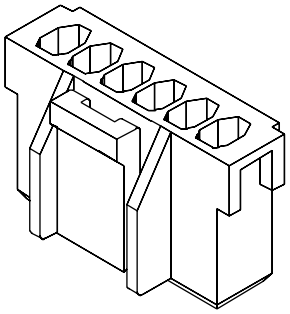
Circuits	Order No.
7	35184-0700
8	35184-0800
9	35184-0900
10	35184-1000
11	35184-1100

Circuits	Order No.
12	35184-1200
14	35184-1400

www.molex.com/customer.html?seriesNumber=35184

2.50mm (.098") Pitch Wire-to-Wire Housing

35155
Positive Lock



Features and Benefits
- Sizes 2 to 15 circuits
- Positive locking latch
- Polarization prevents mismating
- Protective ribs on each side of latch

Reference Information
Product Specification: PS-35184
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R9451371
Mates With: 35184 plug
Use With: 5103
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: PBT, UL 94V-0

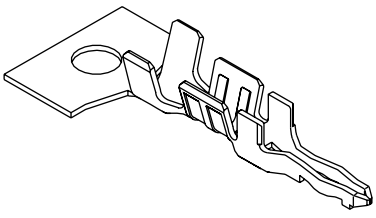
Circuits	Order No.
2	35155-0200
3	35155-0300
4	35155-0400
5	35155-0500
6	35155-0600
7	35155-0700
8	35155-0800

Circuits	Order No.
9	35155-0901
10	35155-1000
11	35155-1100
12	35155-1200
13	35155-1300
14	35155-1400
15	35155-1500

www.molex.com/customer.html?seriesNumber=35155

2.50mm (.098") Pitch Board-In Terminal

50097



Features and Benefits
- Spring-fit style terminal provides high pressure retention to PCB
- Housing lance provides secure retention to housing and protects terminal
- PCB guide ridge helps position terminal to board

Reference Information
Use With: 51035
Designed In: Millimeters

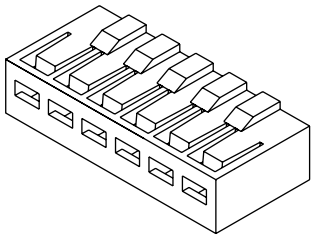
Electrical
Voltage: 250V max.
Current: 4.0A max.

Physical
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 20 to 24 AWG
0.20 to 0.50 sq. KV
0.30 to 0.50 sq. AVS
Insulation Range: 2.10mm dia. max.
Strip Length: 2.50 to 3.00mm

Order No.	Packaging	Lead-free
50097-8000	Reel	Yes
50097-8100	Bag	

2.50mm (.098") Pitch Board-In Housing

51035



Features and Benefits
- Sizes 2 to 18 circuits
- Housing lance provides secure terminal retention and protection

Reference Information
Product Specification: PS-51035-001
Packaging: Bag
Use With: 50097
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 4.0A max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0

Circuits	Order No.
2	51035-0200
3	51035-0300
4	51035-0400
5	51035-0500
6	51035-0600
7	51035-0700

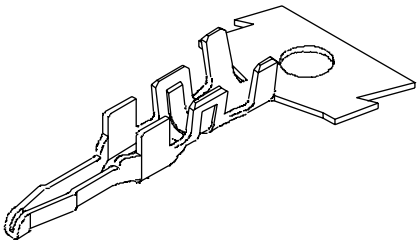
Circuits	Order No.
8	51035-0800
9	51035-0900
10	51035-1000
11	51035-1100
12	51035-1200
13	51035-1300

Circuits	Order No.
14	51035-1400
15	51035-1500
16	51035-1600
17	51035-1700
18	51035-1800

www.molex.com/product/board_in.html

2.50mm (.098") Pitch Board-In Terminal

35047



Features and Benefits
- Locking tab secures terminal to housing

Reference Information
Packaging: Reel
Use With: 35164
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current:

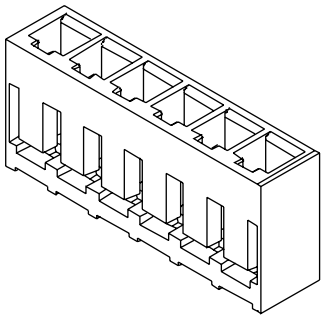
AWG	22	24	26	28
	3.0A	2.5A	1.5A	1.0A

Physical
Contact: Brass
Plating: Tin
Insulation Diameter: 1.90mm (.075") max.
Wire Gauge: 22 to 28 AWG
PCB Thickness: 1.60mm (.063")

Order No.	Lead-free
35047-9802	Yes
35047-9860	

2.50mm (.098") Pitch Board-In Housing

35164
Vertical



Features and Benefits
- Sizes 2 to 15 circuits
- Locking windows secure terminal to housing

Reference Information
Product Specification: PS-35164
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Use With: 35047
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 5 milliohms max
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0

Circuits	Order No.
2	35164-0200
3	35164-0300
4	35164-0400
5	35164-0500
6	35164-0600

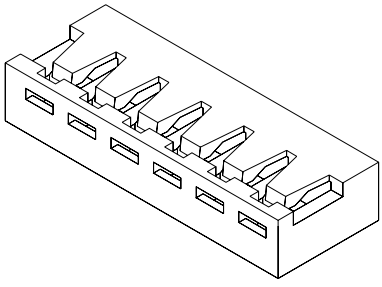
Circuits	Order No.
7	35164-0700
8	35164-0800
9	35164-0900
10	35164-1000
11	35164-1100

Circuits	Order No.
12	35164-1200
13	35164-1300
14	35164-1400
15	35164-1500

www.molex.com/customer.html?seriesNumber=35164

2.50mm (.098") Pitch Board-In Connector Housing

35022
Right Angle



Features and Benefits
- Sizes 2 to 16 circuits
- Low profile (2.95mm)
- Terminal locking window
- Solders directly to PCB

Reference Information
Product Specification: PS-35022-003
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Use With: 35021 terminal
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current: 3.0A max.
Contact Resistance: 5 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

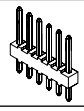
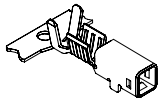
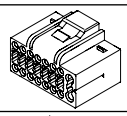
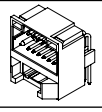
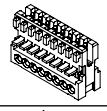
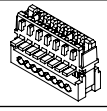
Physical
Housing: Nylon, UL 94V-0

Circuits	Order No.
2	35022-0002
3	35022-0003
4	35022-0004
5	35022-0005
6	35022-0006

Circuits	Order No.
7	35022-0007
8	35022-0008
9	35022-0009
10	35022-0010
11	35022-0011

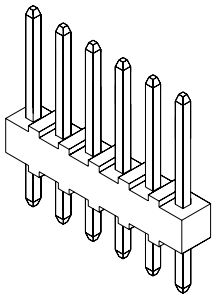
Circuits	Order No.
12	35022-0012
13	35022-0013
14	35022-0014
15	35022-0015
16	35022-0016

2.50/3.00mm (.098/.118") Pitch

Pitch	Series		Tradename	Description
2.50mm (.098")	3022-NA			Header
2.50/3.00mm (.098/.118")	50535			Female Crimp Terminal
	51128			Receptacle Housing
	53526			Header with Fuse
	91716		Appli-Mate™	Receptacle Housing
	91780			Direct Edge Card

2.50mm (.098") Pitch Wire-to-Board Header

3022-NA
Single Row



Features and Benefits
- Sizes 3 to 16 circuits

Reference Information
Product Specification: PS-99020-0088
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5051
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 2 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0
Contact: Brass
Plating: Tin

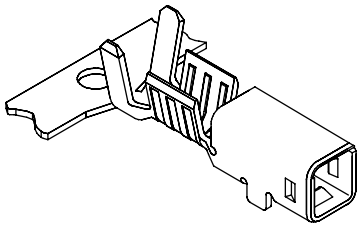
Circuits	Order No.	Lead-free
3	22-03-1031	Yes
4	22-03-1041	
5	22-03-1051	
6	22-03-1061	
7	22-03-1071	
8	22-03-1081	
9	22-03-1091	

Circuits	Order No.	Lead-free
10	22-03-1101	Yes
11	22-03-1111	
12	22-03-1121	
13	22-03-1131	
14	22-03-1141	
15	22-03-1151	
16	22-03-1161	

www.molex.com/customer.html?seriesNumber=3022

2.50/3.00mm (.098/.118") Pitch Wire-to-Board Crimp Terminal

50535
Female



Features and Benefits
- Two points of contact
- Housing lance provides secure terminal retention
- Box design provides two points of contact and terminal protection

Reference Information
Packaging: Reel
Use With: 51128
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current:

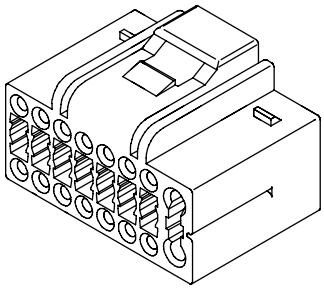
AWG	16	18	20
	10.0A	10.0A	4.0A

Physical
Contact: Brass
Plating: Tin

Order No.	Lead-free
50535-9001	Yes

2.50/3.00mm (.098/ .118") Pitch Wire-to-Board Receptacle Housing

51128



Order No.	Lead-free
51128-1601	Yes

Features and Benefits
- Size 16 circuits
- Housing lance provides extra terminal retention
- Friction lock provides secure mating

Reference Information
Product Specification: PS-51128-003
Packaging: Bag
Mates With: 53526
Use With: 50535
Designed In: Millimeters

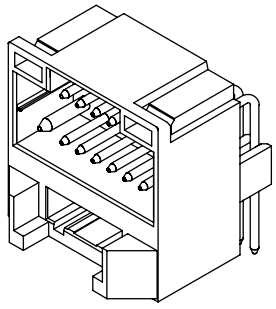
Electrical
Voltage: 250V max.
Current: 10.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: PA, UL94

www.molex.com/customer.html?seriesNumber=51128

2.50/3.00mm (.098/.118") Pitch Wire-to-Board Header

53526



Circuits	Order No.	Lead-free
16	53526-1619	Yes

Features and Benefits
- Size 16 circuits
- Connector with power pins, signal pins and fuse
- Friction lock provides passive lock to mating connector
- High pin retention

Reference Information
Product Specification: PS-51128-003
Packaging: Bag
Mates With: 51128
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 10.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

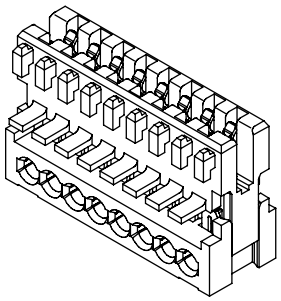
Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin

www.molex.com/customer.html?seriesNumber=53526

2.50mm (.098") Pitch Appli-Mate™ 2.5 RAST IDT Connector System Receptacle Housing

91716

Female, Direct/Indirect



Features and Benefits

- Complies with RAST 2.5 standard specification
- Molded polarized features
- Two points of contact at interface
- Same connector will mate with male header and direct to PCB
- Suitable for use with 0.22-0.38mm cable
- Manual, semi-automatic and fully-automatic state-of-the-art terminating machines available

Reference Information

Product Specification: PS-99020-0040
Packaging: Tray
Mates With: 90860 and 90861
Designed In: Millimeters

Electrical

Voltage: 60V
Current: 2.0A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 4.00N (0.90 lb)
Unmating Force: 0.50N (0.11 lb)
Durability: 10 cycles

Physical

Housing: PBT polyester, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Tin

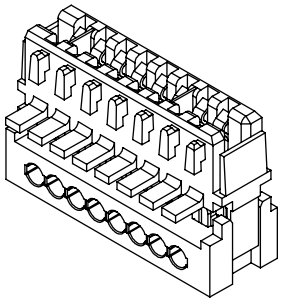
Circuits	Order No.	Lead-free
3	91716-0001	Yes
4	91716-0501	
5	91716-1001	
6	91716-1501	
7	91716-2001	
8	91716-2501	
9	91716-3001	
10	91716-3501	
11	91716-4001	

Circuits	Order No.	Lead-free
12	91716-4501	Yes
13	91716-5001	
14	91716-5501	
15	91716-6001	
16	91716-6501	
17	91716-7001	
18	91716-7501	
19	91716-8001	
20	91716-8501	

2.50mm (.098") and 5.00mm (.197") Pitch Appli-Mate™ RAST IDT Connector System Direct Edge Card

91780

With Locking Latch



Features and Benefits

- Locks directly onto PCB, eliminating the need for a guide frame or header
- Available in 2.50 and 5.00mm pitch to allow use in high and low voltage applications
- Available in a range of circuits sizes, terminal positions, polarizing ribs and keying options.

Reference Information

Product Specification: PS-99020-0040
Packaging: Tray
Designed in: Millimeters

Electrical

Voltage: 2.50mm Pitch—32V
5.00mm Pitch—240V
Current: 2.0 A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Wire Pull-Out Force: 50N per circuit
Mating Force: 4N (0.90 lb)
Unmating Force: 0.5N (0.11 lb)
Durability: 10 cycles

Physical

Housing: Nylon, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Tin
Wire Gauge: 22 to 24 AWG
PCB Thickness: 1.40mm (.056")

Circuits	Order No.	Lead-free
3	91780-0001	Yes
4	91780-0501	
5	91780-1001	
6	91780-1501	
7	91780-2001	

Circuits	Order No.	Lead-free
8	91780-2501	Yes
9	91780-3001	
10	91780-3501	
11	91780-4001	
12	91780-4501	

SL™ Modular Interconnect System

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Crimp Housings....C-7 to C-12
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Wire-to-Wire Connectors....C-20 to C-22
Interim Clips....C-22 to C-23
Wire-to-Board Headers
- Shrouded....C-23 to C-27

C-Grid® Modular Interconnect System

Headers
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- Shrouded, Dual Row....C-30 to C-36

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C-Grid III™ Modular Interconnect System

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- Single Row....C-45
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KK® Modular Interconnect System

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Custom Headers

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Dual Row....C-66

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

C-Grid® and SL™ High Density Connectors Introduction

Molex presents its 2.54mm (.100") pitch grid interconnection products…C-Grid, the dual row, board-to-board system and SL™, the modular, single row wire-to-board and wire-to-wire system.

The proven design of both the C-Grid and SL systems features similar material and electrical specifications. Both utilize 0.64mm (.025") square pins and selective Gold or Tin plating.

C-Grid, based on a .100" grid, is designed for dense electronic packaging. The system includes: vertical and right angle headers in breakaway, shrouded and dual-body styles; vertical and right angle receptacles; headers and receptacles for SMT applications; and a 2-circuit shunt completes the C-Grid product line.

SL is designed for high density signal applications. The system includes: low profile latching vertical and right angle headers; 5 stackable, low profile housings for male or female crimp terminals; pre-assembled, single piece pin and receptacle connector assemblies for IDT termination of discrete wire or ribbon cable and piercing crimp termination of FFC/FPC; single and dual row latching interim clips for stacking of subassemblies to form larger connectors; panel mounts for modular wire-to-wire remote interconnections; and SL offers design flexibility and automated harness-making capabilities when combined with our tooling.

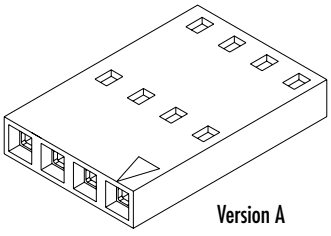
These 4 low profile, stackable housings form the basis of the single row system. Each housing accommodates either male or female terminals, IDT or crimp.

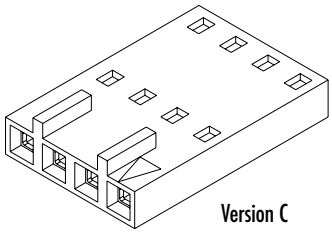
The "A" version is infinitely stackable on the X-Y matrix.

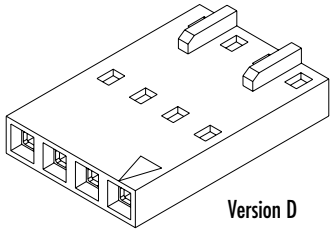
The "C" version has ribs on the front end that polarize and also prevent the housing from twisting off the mating pins during mating/disconnect.

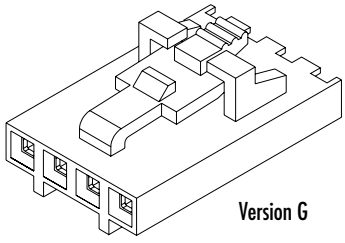
The "D" version has back ribs that polarize, guide and maintain the connector in position in an interim clip or panel mount. It is used with both male and female terminals.

The "G" version has front ribs as well as a positive locking latch and anti-entanglement ribs to prevent wires from catching under the latch during harness-making and storage.

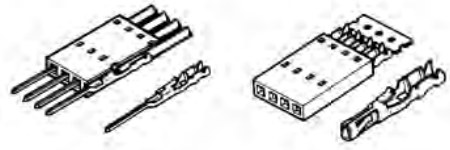

Version A


Version C

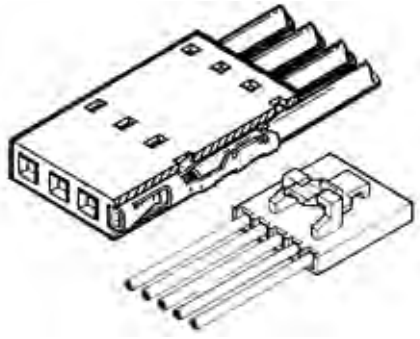

Version D


Version G

SL™ boasts pre-assembled, single piece construction of its insulation displacement-type connector assemblies. These can terminate both discrete wire or ribbon cable.

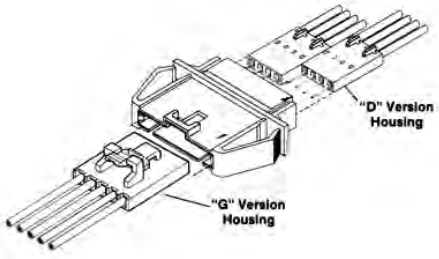


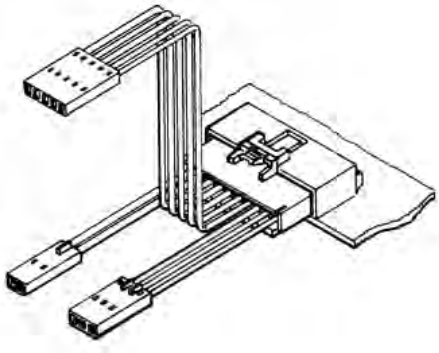
Preloaded assemblies are loaded into plastic tubes that protect the product during shipping and also allow the connector to be integrated into highly automated harness production.

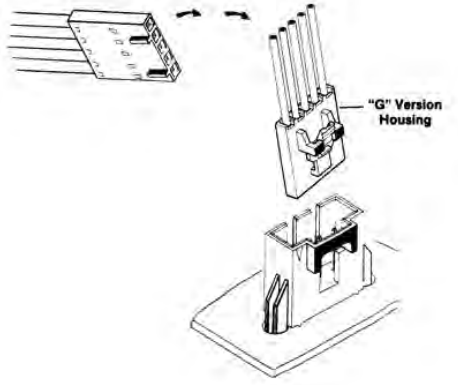


After termination the housings are locked over the terminal and the carrier strip is broken off. This automated process, with built-in diagnostic systems, assures quality products.

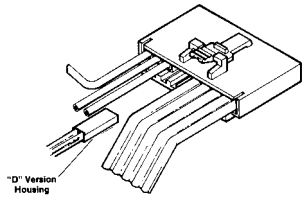
Shown: Wire-to-wire connection using male connectors in "D" version housings. The ribs interface to slots on the underside of the panel mount. Once loaded, the panel mount is fitted into place in the panel. Completing the connection, the female connector, "G" version, is guided through the other end of the panel mount via polarization slots. Positive latch ensures a tight lock.







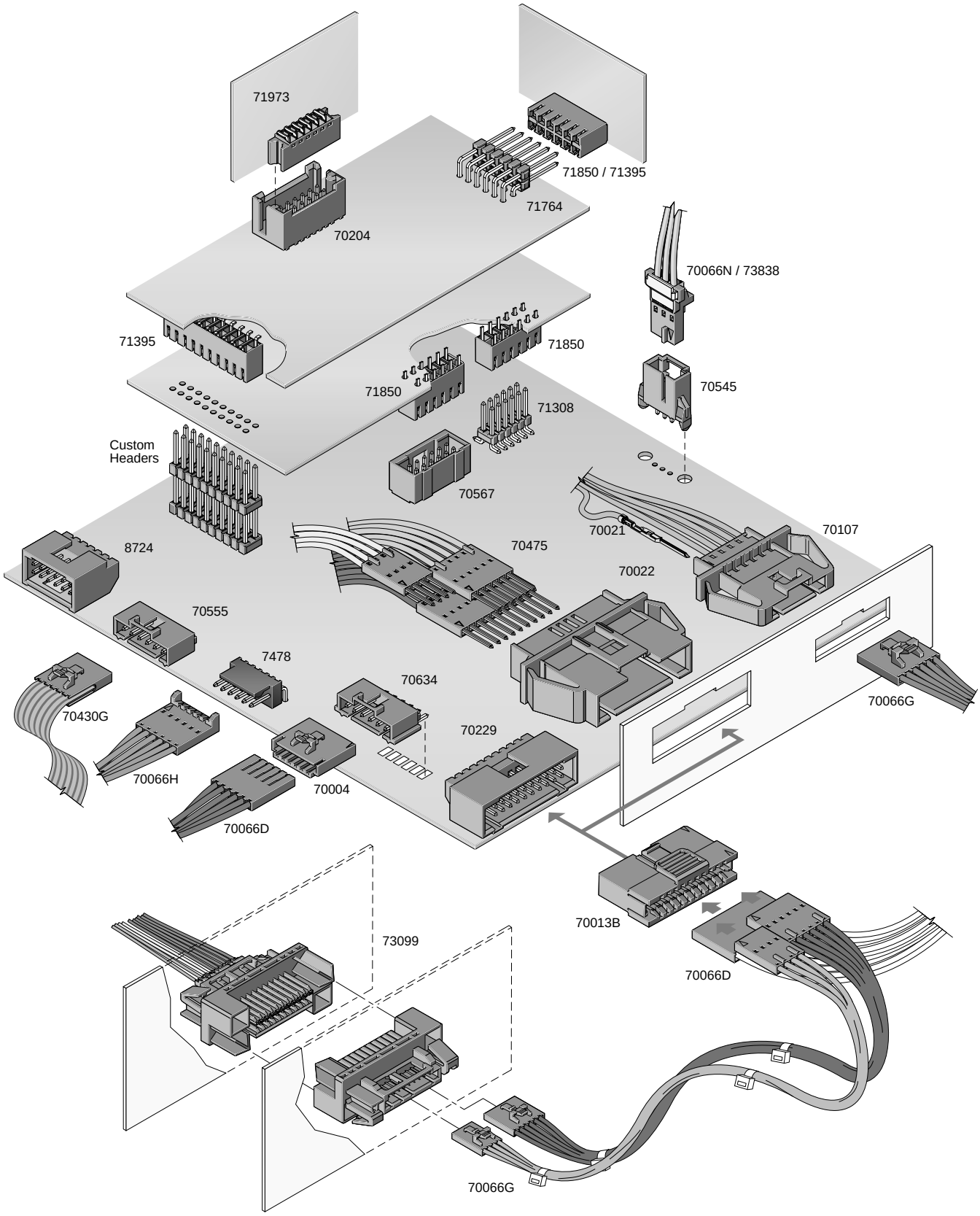
Shown: Wire-to-board connection using a shrouded header with PC board locks and a "G" version female connector. The polarizing ribs on the connector prevent it from breaking or bending the pins on the header during mating and disconnect. Note the positive latching feature.



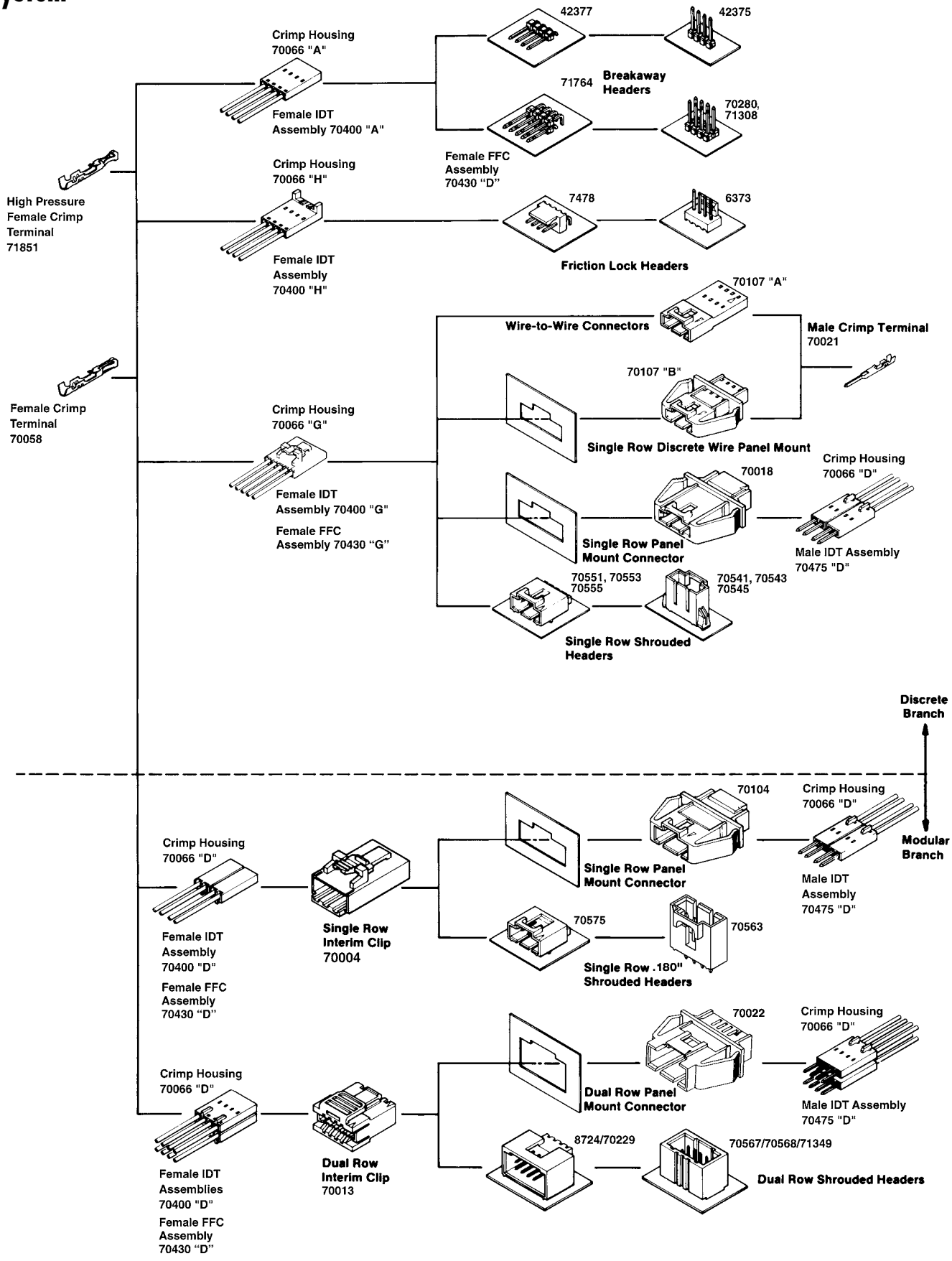
Shown: Gang loading of subassemblies in an interim clipmodule. The slots in the clip guide the "D" version housing during loading and also prevent the housing from drifting within the clip.

Originally appeared on page C-2

SL™ Modular Interconnection System

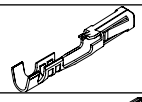
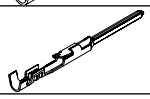
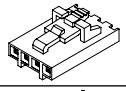
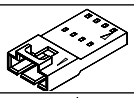
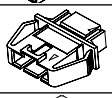
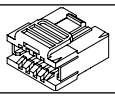
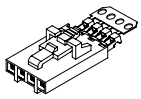
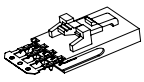
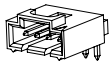
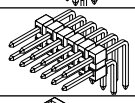
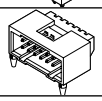
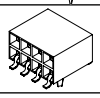


SL™ Modular Interconnection System



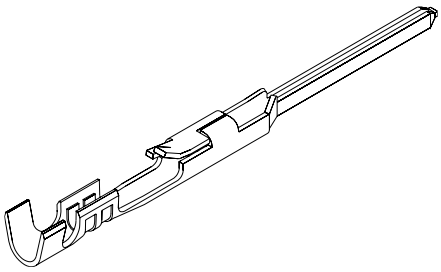
2.54mm (.100") Pitch C-Grid®/SL™ Modular Interconnect System

- Modular Interconnect System Wire-to-wire, wire-to-board and board-to-board applications
- Three Termination Methods: Crimp, IDT, FFC Cable Piercing
- Positive Latching System
- Through Hole and SMT configurations

	Description	Specifications	Materials	Circuits/Wire Gauge	Options	Series No.
Terminals						
	Female Crimp terminal	3.0A, 250V	Copper Alloy	22-30 AWG	Bag or Reel	70058 (Standard)
						71851 (High Force)
	Male Crimp Terminal					70021
Housings						
	Crimp Housing (to be used with female terminals)	3.0A, 250V	Housing: Black polyester, UL 94V-0	2-25	Single Row	70066
				4-54	Dual Row	70450
	Crimp Housing (to be used with Male terminals)			2-25	Single Row	70107
	Modular Branch	3.0A, 250V	Housing: Black polyester, UL 94V-0	2-25	Single Row	70018, 70104
				6-50	Dual Row	70022
	Interim Clip			4-25	Single Row	70004
				6-50	Dual Row	70013
Assemblies						
	Insulation Displacement Single Row Assembly	1.2A - 28 AWG 1.8A - 26 AWG 3.0A - 22 AWG 3.0A - 24 AWG	Housing: Black polyester, UL 94V-0	2-25	Female	70400
					Male	70475
	FFC/FPC Single Row Assembly	2.0A, 250V	Housing: Black polyester, UL 94V-0		Female	70430
					Male	70431
Headers						
	Vertical Shrouded Header	3.0A, 250V	Housing: Black glass-filled PCT, UL 94V-0	2-25	Single Row	70543, 70541, 70545, 74190, 70563, 74099
	Right Angle Shrouded Header					70553, 70551, 70555, 70634, 70575
	Vertical Unshrouded Breakaway Header	3.0A, 250V	Housing: Polyester or high temperature thermal plastic, UL 94V-0	4-100	Dual Row	70280, 71308
	Right Angle Unshrouded Breakaway Header			4-80		71764, 70216
	Vertical Shrouded Header	3.0A, 250V	Housing: Polyester or high temperature thermal plastic, UL 94V-0	6-72	Dual Row	70567, 70568, 71349, 70204
	Right Angle Shrouded Header		Housing: Polyester or glass-filled nylon, UL 94V-0			8724, 70229
Receptacles						
	Vertical PCB Receptacle	2.5A, 250V	Housing: High temperature thermal plastic, UL 94V-0	4-80	Dual Row	71850, 71395
	Right Angle PCB Receptacle		Housing: High temperature thermal plastic, UL 94V-0	8-72		71979, 71973

2.54mm (.100") Pitch SL™ Terminal

70021
Male, Crimp



Features and Benefits
- Dual tab strain relief
- Locking tang secures terminal in housing

Reference Information
Product Specification: PS-70021
Packaging: Reel or bag
Mates With: 70058 and 71851 female crimp terminals, and 70400 and 70430 connector assemblies
Use With: 70066D and 70107 housings
Designed In: Inches

Electrical
Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Wire Pull-Out Force: 17.79N (4.0 lb) min.
Durability: Tin—25 cycles; Gold—50 cycles

Physical
Contact: Copper Alloy
Plating: See Table
Wire Gauge: 22 to 24 and 24 to 30 AWG

Not For Use With C-Grid III™ Components

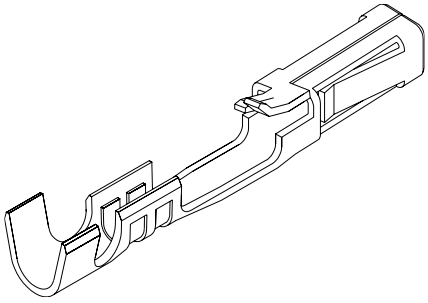
Reel				
Order No.	Plating	Wire Range (AWG) Stranded	Insulation Maximum Outside Diameter	Lead-free
16-02-0116	1	22-24	1.63 (.064)	Yes
16-02-0078		24-30	1.52 (.060)	
16-02-0081	2	22-24	1.63 (.064)	
16-02-0077		24-30	1.52 (.060)	
16-02-0107	3	22-24	1.63 (.064)	
16-02-0105		24-30	1.52 (.060)	

Bag				
Order No.	Plating	Wire Range (AWG) Stranded	Insulation Maximum Outside Diameter	Lead-free
16-02-0117	1	22-24	1.63 (.064)	Yes
16-02-0110		24-30	1.52 (.060)	
16-02-0115	2	22-24	1.63 (.064)	
16-02-0109		24-30	1.52 (.060)	
16-02-0114	3	22-24	1.63 (.064)	
16-02-0108		24-30	1.52 (.060)	

Plating No. 1: 30µ" min. Gold in select area over 50µ" min. Nickel overall with 75µ" Tin in select area
Plating No. 2: 15µ" min. Gold in select area over 50µ" min. Nickel overall with 75µ" min. Tin in select area
Plating No. 3: 150µ" Tin over 50µ" Nickel overall
Each reel contains 20,000 terminals

2.54mm (.100") Pitch SL™ Terminal

70058
Female Box, Crimp



Features and Benefits
- Dual beam, fully-enclosed box contact
- Dual tab strain relief
- Locking tang secures terminal in housing

Reference Information
Product Specification: PS-70058
Packaging: Reel or bag
Mates With: 70021 male crimp terminals and 0.64mm (.025") square pins
Use With: All 70066 and 70450 housings
Designed In: Inches

Electrical
Voltage 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Contact Retention to Housing: 17.79N (4.0 lb) min.
Wire Pull-Out Force: 17.79N (4.0 lb) min.
Mating Force: 2.22N (.50 lb) max.
Unmating Force: 0.28N (.06 lb) min.
Normal Force: 0.98N (.22 lb) min.
Durability: Tin—25 cycles; Gold—50 cycles

Physical
Contact: Copper Alloy
Plating: See Table
Wire Gauge: 22 to 24 and 24 to 30 AWG

Not For Use With C-Grid III™ Components

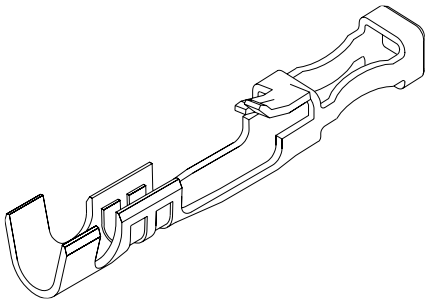
Reel				
Order No.	Plating	Wire Range (AWG) Stranded	Insulation Maximum Outside Diameter	Lead-free
16-02-0088	1	22-24	1.63 (.064)	Yes
16-02-0083		24-30	1.52 (.060)	
16-02-0087	2	22-24	1.63 (.064)	
16-02-0082		24-30	1.52 (.060)	
16-02-0086	3	22-24	1.63 (.064)	
16-02-0069		24-30	1.52 (.060)	

Bag				
Order No.	Plating	Wire Range (AWG) Stranded	Insulation Maximum Outside Diameter	Lead-free
16-02-0104	1	22-24	1.63 (.064)	Yes
16-02-0098		24-30	1.52 (.060)	
16-02-0103	2	22-24	1.63 (.064)	
16-02-0097		24-30	1.52 (.060)	
16-02-0102	3	22-24	1.63 (.064)	
16-02-0096		24-30	1.52 (.060)	

Plating No. 1: 30µ" min. Gold in select area over 50µ" min. Nickel overall with 75µ" Tin in select area
Plating No. 2: 15µ" min. Gold in select area over 50µ" min. Nickel overall with 75µ" min. Tin in select area
Plating No. 3: 150µ" Tin over 50µ" Nickel overall
Each reel contains 20,000 terminals

2.54mm (.100") Pitch SL™ Terminal

71851
Female, High Force Crimp



Features and Benefits
- Dual beam, fully-enclosed box contact
- Higher mating force than standard crimp terminal
- For use with low current/high vibration applications in small circuit sizes
- Dual tab strain relief
- Locking tang secures terminal in housing

Reference Information
Product Specification: PS-71851
Packaging: Reel or bag
Mates With: 70021 male crimp terminals, 70431 and 70475 male connector assemblies and 0.64mm (.025") square pins
Use With: 70066 and 70450 housings
Designed In: Inches

Electrical
Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Contact Retention to Housing: 17.79N (4.0 lb) min.
Wire Pull-Out Force: 17.79N (4.0 lb) min.
Mating Force: Tin—12.14N (2.73 lb) max.
Gold—5.07N (1.14 lb)
Unmating Force: Tin—3.60N (.81 lb) min.
Gold—2.36N (.53 lb)
Durability: Tin—25 cycles; Gold—50 cycles

Physical
Contact: Copper Alloy
Plating: See Table
Wire Gauge: 22 to 24 and 24 to 30 AWG

Not For Use With C-Grid III™ Components

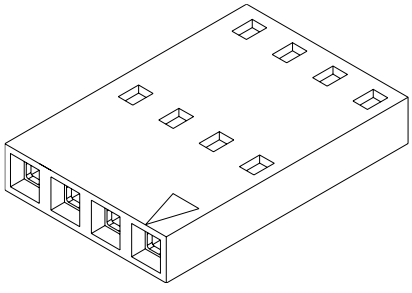
Reel				
Order No.	Plating	Wire Range (AWG) Stranded	Insulation Maximum Outside Diameter	Lead-free
16-02-1111	1	22-24	1.63 (.064)	Yes
16-02-1113		24-30	1.52 (.060)	
16-02-1124	2	22-24	1.63 (.064)	
16-02-0119		24-30	1.52 (.060)	
16-02-1110	3	22-24	1.63 (.064)	
16-02-1112		24-30	1.52 (.060)	

Bag				
Order No.	Plating	Wire Range (AWG) Stranded	Insulation Maximum Outside Diameter	Lead-free
16-02-1115	1	22-24	1.63 (.064)	Yes
16-02-1117		24-30	1.52 (.060)	
16-02-1125	2	22-24	1.63 (.064)	
16-02-1109		24-30	1.52 (.060)	
16-02-1114	3	22-24	1.63 (.064)	
16-02-1116		24-30	1.52 (.060)	

Plating No. 1: 30µ" min. Gold in select area over 50µ" min. Nickel overall with 75µ" Tin
Plating No. 2: 15µ" min. Gold in select area over 50µ" min. Nickel overall with 75µ" min. Tin in select area
Plating No. 3: 150µ" Tin over 50µ" Nickel overall
Each reel contains 20,000 terminals

2.54mm (.100") Pitch SL™ Crimp Housing

70066
Single Row
Version A, Nonpolarized



Features and Benefits
- Sizes 2 to 25 circuits
- End-to-end and side-to-side stackable for single or dual row connections to a 2.54mm (.100") pitch grid pin field

Reference Information
Product Specification: PS-70400
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2.54mm (.100") pitch, single or dual row headers (C-Grid®, SL, KK®)
Use With: 70058 and 71851 crimp terminals
Designed In: Inches

Physical
Housing: Black polyester, UL 94V-0

Delivered on a carrier with 20 pieces per strip.

Actual Size 

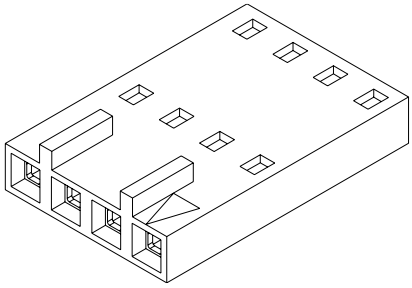
Universal Polarizing Pin 40713-1
Order No. 15-04-0292

Not For Use With C-Grid III™ Components

Circuits	Order No.	Circuits	Order No.	Circuits	Order No.
2	50-57-9002	10	50-57-9010	18	50-57-9018
3	50-57-9003	11	50-57-9011	19	50-57-9019
4	50-57-9004	12	50-57-9012	20	50-57-9020
5	50-57-9005	13	50-57-9013	21	50-57-9021
6	50-57-9006	14	50-57-9014	22	50-57-9022
7	50-57-9007	15	50-57-9015	23	50-57-9023
8	50-57-9008	16	50-57-9016	24	50-57-9024
9	50-57-9009	17	50-57-9017	25	50-57-9025

2.54mm (.100") Pitch SL™ Crimp Housing

70066
Single Row
Version C, Front Ribs



Features and Benefits
- Sizes 2 to 25 circuits
- Front ribs prevent contact damage when unmating the connector from a header; the housing cannot be twisted off pins
- Front ribs provide 180° polarization

Reference Information
Product Specification: PS-70400
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2.54mm (.100") pitch SL headers
Use With: 70058 and 71851 crimp terminals
Designed In: Inches

Physical
Housing: Black polyester, UL 94V-0

Delivered on a carrier with 20 pieces per strip.

Actual Size 

Universal Polarizing Pin
40713-1
Order No. 15-04-0292

Not For Use With C-Grid III™ Components

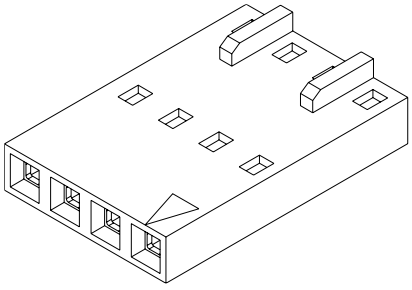
Circuits	Order No.
2	50-57-9202
3	50-57-9203
4	50-57-9204
5	50-57-9205
6	50-57-9206
7	50-57-9207
8	50-57-9208
9	50-57-9209

Circuits	Order No.
10	50-57-9210
11	50-57-9211
12	50-57-9212
13	50-57-9213
14	50-57-9214
15	50-57-9215
16	50-57-9216
17	50-57-9217

Circuits	Order No.
18	50-57-9218
19	50-57-9219
20	50-57-9220
21	50-57-9221
22	50-57-9222
23	50-57-9223
24	50-57-9224
25	50-57-9225

2.54mm (.100") Pitch SL™ Crimp Housing

70066
Single Row
Version D, Back Ribs



Features and Benefits
- Sizes 2 to 25 circuits
- Designed for use with interim clips and panel mount connectors to form a larger single mating connector
- Back ribs maintain position of connector housing in interim clip and panel mount, and allow for end-to-end or side-to-side stacking in interim clips and panel mount connectors

Reference Information
Product Specification: PS-70400
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Accessories: Interim clips 70004 and 70013 to form female connector assembly; panel mount connectors 70018, 70022 and 70104 to form a male pin assembly
Use With: 70021, 70058 and 71851 crimp terminals
Designed In: Inches

Physical
Housing: Black polyester, UL 94V-0

Delivered on a carrier with 20 pieces per strip.

Actual Size 

Universal Polarizing Pin
40713-1
Order No. 15-04-0292

Not For Use With C-Grid III™ Components

Circuits	Order No.
2	50-57-9302
3	50-57-9303
4	50-57-9304
5	50-57-9305
6	50-57-9306
7	50-57-9307
8	50-57-9308
9	50-57-9309

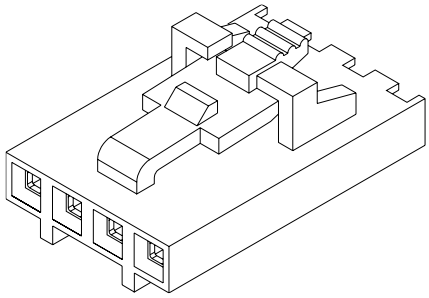
Circuits	Order No.
10	50-57-9310
11	50-57-9311
12	50-57-9312
13	50-57-9313
14	50-57-9314
15	50-57-9315
16	50-57-9316
17	50-57-9317

Circuits	Order No.
18	50-57-9318
19	50-57-9319
20	50-57-9320
21	50-57-9321
22	50-57-9322
23	50-57-9323
24	50-57-9324
25	50-57-9325

2.54mm (.100") Pitch SL™ Crimp Housing

70066

Single Row
Version G, Positive Latch



Features and Benefits

- Sizes 2 to 25 circuits
- Positive latch secures housing to locking crown of mating header or panel mount
- Anti-entanglement/overstress ribs prevent discrete wires from catching under latch during harness manufacturing and storage
- Front ribs prevent contact damage when unmating the connector from a header; the housing cannot be twisted off pins

Reference Information

Product Specification: PS-70400
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70018, 70107A/B, 70541, 70543, 70545, 70551, 70553, 70555, 70634 and 74099
Use With: 70058 and 71851 crimp terminals
Designed In: Inches

Physical

Housing: Black polyester, UL 94V-0

Delivered on a carrier with 20 pieces per strip.

Actual Size  **Universal Polarizing Pin 40713-1**
Order No. 15-04-0292

Not For Use With C-Grid III™ Components

Circuits	Order No.
2	50-57-9402
3	50-57-9403
4	50-57-9404
5	50-57-9405
6	50-57-9406
7	50-57-9407
8	50-57-9408
9	50-57-9409

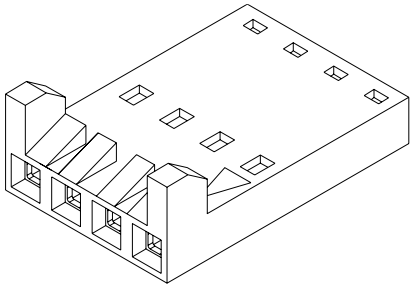
Circuits	Order No.
10	50-57-9410
11	50-57-9411
12	50-57-9412
13	50-57-9413
14	50-57-9414
15	50-57-9415
16	50-57-9416
17	50-57-9417

Circuits	Order No.
18	50-57-9418
19	50-57-9419
20	50-57-9420
21	50-57-9421
22	50-57-9422
23	50-57-9423
24	50-57-9424
25	50-57-9425

2.54mm (.100") Pitch SL™ Crimp Housing

70066

Single Row
Version H



Features and Benefits

- Sizes 2 to 25 circuits
- Stackable end-to-end
- Polarized latching ribs mate with Molex KK® series .100" pitch friction lock headers

Reference Information

Product Specification: PS-70400
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 6373 and 7478
Use With: 70058 and 71851 crimp terminals
Designed In: Inches

Physical

Housing: Black polyester, UL 94V-0

Delivered on a carrier with 20 pieces per strip.

Actual Size  **Universal Polarizing Pin 40713-1**
Order No. 15-04-0292

Not For Use With C-Grid III™ Components

Circuits	Order No.
2	50-57-9502
3	50-57-9503
4	50-57-9504
5	50-57-9505
6	50-57-9506
7	50-57-9507
8	50-57-9508
9	50-57-9509

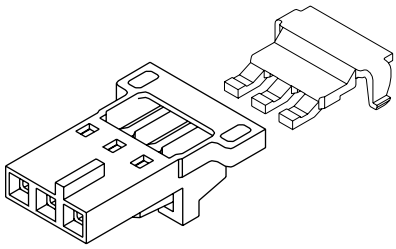
Circuits	Order No.
10	50-57-9510
11	50-57-9511
12	50-57-9512
13	50-57-9513
14	50-57-9514
15	50-57-9515
16	50-57-9516
17	50-57-9517

Circuits	Order No.
18	50-57-9518
19	50-57-9519
20	50-57-9520
21	50-57-9521
22	50-57-9522
23	50-57-9523
24	50-57-9524
25	50-57-9525

2.54mm (.100") Pitch SL™ Crimp Housing

70066/73838

Single Row Version N, TPA with Positive Latch



Features and Benefits

- Optimizes terminal-to-housing retention
- Virtually eliminates terminal backout when TPA is locked into place
- Upon seating TPA, audible click denotes system activation
- White/black color contrast provides easy identification of TPA system
- Positive locking latch secures housing to mating connector
- Anti-entanglement/overstress ribs prevent discrete wires from catching under latch during harness manufacturing and storage

Reference Information

Product Specification: PS-73838, PS-70400
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates with: 70018, 70107A/B, 70541, 70543, 70545, 70551, 70553, 70555, 70634 and 74099
Use with: 73838 TPA and 70058 or 71851 crimp terminals
Designed In: Inches

Physical

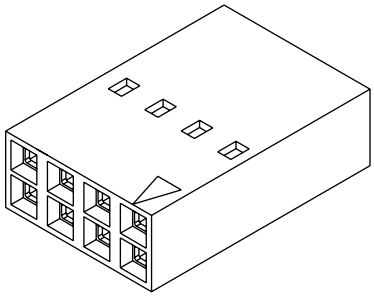
Housing: Black polyester, UL 94V-0
TPA: White polyester, UL 94V-0

Circuits	70066 Version N TPA Crimp Housing	73838 TPA
	Order No	Order No.
2	50-57-9702	73838-0002
3	50-57-9703	73838-0003
4	50-57-9704	73838-0004
5	50-57-9705	73838-0005
6	50-57-9706	73838-0006
7	50-57-9707	73838-0007
8	50-57-9708	73838-0008

2.54mm (.100") Pitch SL™ Crimp Housing

70450

Dual Row Version A, Nonpolarized



Features and Benefits

- Sizes 4 to 54 circuits
- End-to-end and side-to-side stackable for dual row connections to a 2.54mm (.100") pitch grid pin field

Reference Information

Product Specification: PS-70400
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 8724, 70229, 70280, 70287, 70567, 70568, 71308 and 71349 Molex dual row headers
Use With: 70058 and 71851 crimp terminals
Designed In: Inches

Physical

Housing: Black polyester, UL 94V-0

Delivered on a carrier with 20 pieces per strip.

Actual Size  **Universal Polarizing Pin 40713-1**
Order No. 15-04-0292

Not For Use With C-Grid III™ Components

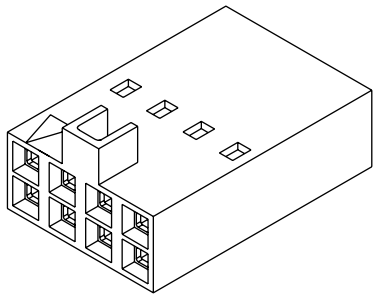
Circuits	Order No.
4	22-55-2041
6	22-55-2061
8	22-55-2081
10	22-55-2101
12	22-55-2121
14	22-55-2141
16	22-55-2161
18	22-55-2181
20	22-55-2201

Circuits	Order No.
22	22-55-2221
24	22-55-2241
26	22-55-2261
28	22-55-2281
30	22-55-2301
32	22-55-2321
34	22-55-2341
36	22-55-2361
38	22-55-2381

Circuits	Order No.
40	22-55-2401
42	22-55-2421
44	22-55-2441
46	22-55-2461
48	22-55-2481
50	22-55-2501
52	22-55-2521
54	22-55-2541

2.54mm (.100") Pitch SL™ Crimp Housing

70450
Dual Row
Version B, Polarized



Features and Benefits
- Sizes 4 to 50 circuits
- Polarized to mate with dual row, low profile shrouded headers

Reference Information
Product Specification: PS-70400
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70246, 70247, 87256 and 87257
Use With: 70058 and 71851 crimp terminals
Designed In: Inches

Physical
Housing: Black polyester, UL 94V-0

Delivered on a carrier with 20 pieces per strip.

Actual Size 

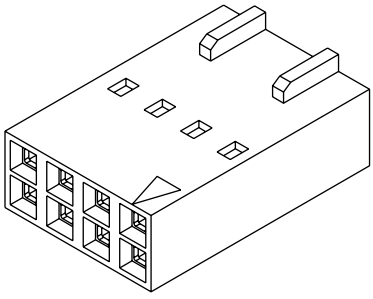
Universal Polarizing Pin
40713-1
Order No. 15-04-0292

Not For Use With C-Grid III™ Components

Circuits	Order No.	Circuits	Order No.	Circuits	Order No.
4	22-55-2042	20	22-55-2202	36	22-55-2362
6	22-55-2062	22	22-55-2222	38	22-55-2382
8	22-55-2082	24	22-55-2242	40	22-55-2402
10	22-55-2102	26	22-55-2262	42	22-55-2422
12	22-55-2122	28	22-55-2282	44	22-55-2442
14	22-55-2142	30	22-55-2302	46	22-55-2462
16	22-55-2162	32	22-55-2322	48	22-55-2482
18	22-55-2182	34	22-55-2342	50	22-55-2502

2.54mm (.100") Pitch SL™ Crimp Housing

70450
Dual Row
Version C, Back Ribs



Features and Benefits
- Sizes 4 to 50 circuits
- Designed to be used within 70013 dual row interim clip as a female connector assembly or 70022 dual row panel mount as a male pin assembly
- End-to-end stackable
- Back ribs maintain position of connector housings in interim clip and panel mount

Reference Information
Product Specification: PS-70400
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Accessories: 70013 and 70022
Use With: 70021, 70058 and 71851 crimp terminals
Designed In: Inches

Physical
Housing: Black polyester, UL 94V-0

Delivered on a carrier with 20 pieces per strip.

Actual Size 

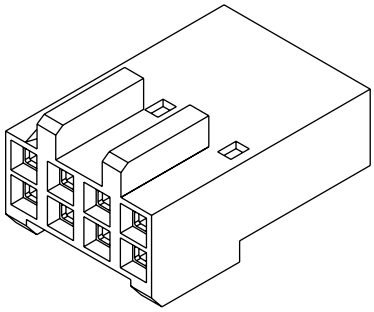
Universal Polarizing Pin
40713-1
Order No. 15-04-0292

Not For Use With C-Grid III™ Components

Circuits	Order No.	Circuits	Order No.	Circuits	Order No.
4	22-55-2043	20	22-55-2203	36	22-55-2363
6	22-55-2063	22	22-55-2223	38	22-55-2383
8	22-55-2083	24	22-55-2243	40	22-55-2403
10	22-55-2103	26	22-55-2263	42	22-55-2423
12	22-55-2123	28	22-55-2283	44	22-55-2443
14	22-55-2143	30	22-55-2303	46	22-55-2463
16	22-55-2163	32	22-55-2323	48	22-55-2483
18	22-55-2183	34	22-55-2343	50	22-55-2503

2.54mm (.100") Pitch SL™ Crimp Housing

70450 Dual Row Version F



Features and Benefits

- Sizes 6 to 54 circuits
- Front guide ribs provide 180° polarization to mating connector

Reference Information

Product Specification: PS-70400
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 8724, 70229, 70567, 70568 and 71349
Use With: 70058 and 71851 crimp terminals
Designed In: Inches

Physical

Housing: Black polyester, UL 94V-0

Delivered on a carrier with 20 pieces per strip.

Actual Size 

Universal Polarizing Pin
40713-1
Order No. 15-04-0292

Not For Use With C-Grid III™ Components

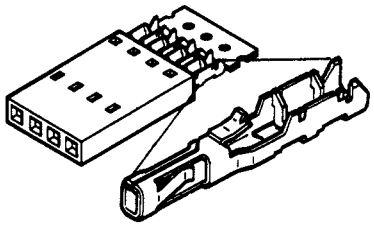
Circuits	Order No.
6	22-56-6067
8	22-56-6087
10	22-56-6107
12	22-56-6127
14	22-56-6147
16	22-56-6167
18	22-56-6187
20	22-56-6207
22	22-56-6227

Circuits	Order No.
24	22-56-6247
26	22-56-6267
28	22-56-6287
30	22-56-6307
32	22-56-6327
34	22-56-6347
36	22-56-6367
38	22-56-6387
40	22-56-6407

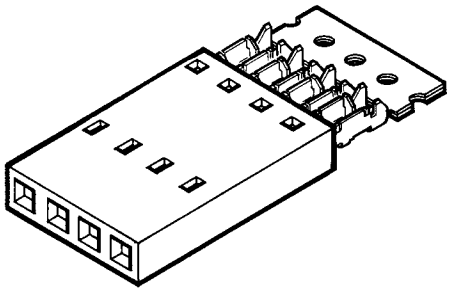
Circuits	Order No.
42	22-56-6427
44	22-56-6447
46	22-56-6467
48	22-56-6487
50	22-56-6507
52	22-56-6527
54	22-56-6547

2.54mm (.100") Pitch SL™

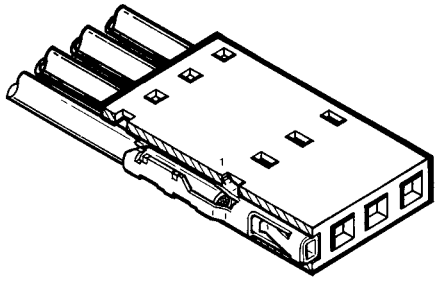
Specifications for Female Insulation Displacement Connector Assembly



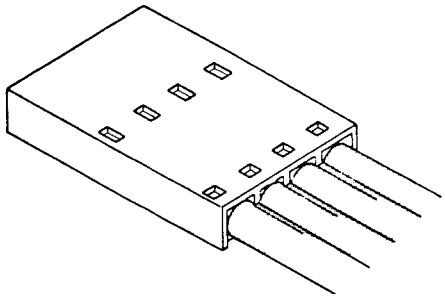
Five styles of single row IDT receptacle assemblies are available in 2 through 25 circuits. The female IDT terminal features a fully enclosed "box" design with dual beams to provide 2 points of contact.



Stamped female terminals are preloaded into first window of housing for presentation of assemblies to application tooling. The carrier is color coded to identify the plating option, and the terminal is stamped with a letter code to distinguish wire gauge of the IDT slot.



Cut away view of the IDT assembly in a loaded position. Locking tangs secure terminals in the second window.



After the cable/wires are terminated, terminals are fully inserted into the housing and locked into the second window. The carrier strip is then broken off. As a result of this automated termination*, the terminals are consistently locked into the housing without damage.

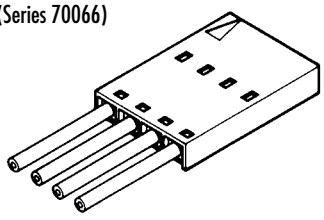
* See Application Tooling section

Wire and Cable Options

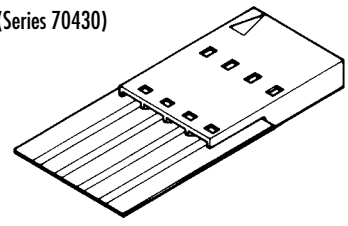
Recommended Molex Cable Engineering No. to use with 70400 series connectors:

Accepts round conductor flat cable from 24 to 28 AWG, with .053" max. outside insulation diameter 7234, 7307, 7560, 7767, 8867, 8996, 8997, 24241, 24327, 24369 and 24389.

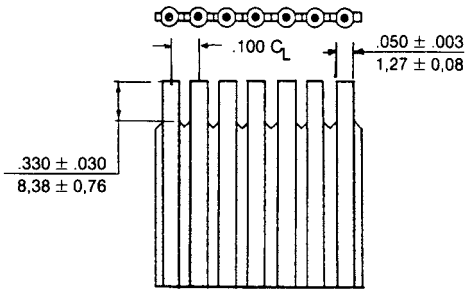
Discrete Wire
(Series 70066)



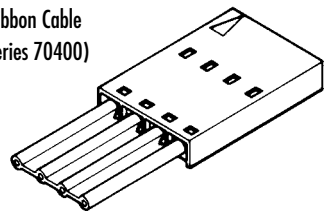
Flat Flex Cable
(Series 70430)



Notch Specification for Ribbon Cable

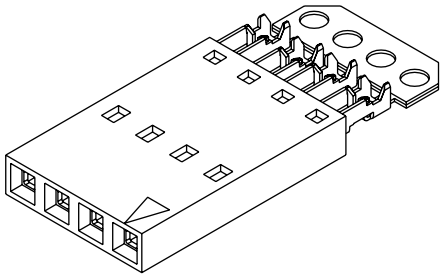


Ribbon Cable
(Series 70400)



2.54mm (.100") Pitch SL™ Insulation Displacement Connector Assembly

70400
Female, Single Row Version A , Nonpolarized



Features and Benefits
- Sizes 2 to 25 circuits
- Preloaded, single piece construction allows for fully automated termination
- Packaged in plastic tubes to allow for automated manufacturing and to minimize product handling
- End-to-end and/or side-to-side stackable for single or dual row connections to a 2.54mm (.100") pitch grid pin field

Reference Information
Product Specification: PS-70040
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2.54mm (.100") pitch, single or dual row C-Grid®, SL or KK® headers
Use With Molex Cable: 7234, 7307, 7560, 7767, 8867, 8996, 8997, 24241, 24327, 24369 and 24389
Designed In: Inches

Electrical
Voltage: 250V
Current: 1.2A—28 AWG; 1.8A—26 AWG
3.0A—24 AWG; 3.0A—22 AWG

Electrical (continued)
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Contact Retension to Housing: 17.79N (4 lb) min.
Mating Force: Tin—4.15N (.93 lb) per circuit;
Gold—3.08N (.70 lb) per circuit
Unmating Force: Tin—2.47N (.55 lb) per circuit;
Gold—.65N (.15 lb) per circuit
Durability: Tin—25 cycles; Gold—50 cycles

Physical
Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table
Insulation and Wire Gauge Range: .053" max. with 22 to 28 AWG stranded discrete wire or flat ribbon cable

Delivered on a carrier with 20 pieces per strip.

Actual Size  **Universal Polarizing Pin 40713-1**
Order No. 15-04-0292

Not For Use With C-Grid III™ Components

Wire Accommodation (AWG)	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
28	14-60-0XX5	14-56-2XX5	14-56-3XX2	Yes
26	14-60-0XX3	14-56-2XX3	14-56-2XX9	
24	14-60-0XX1	14-56-2XX1	14-56-2XX7	
22	14-56-6XX9	14-56-7XX4	14-56-7XX9	
Replace XX with no. of circuits, 02-25				

Plating Code (Stripe on Carrier Strip)	
Plating	Color
Tin	None
15µ" Gold	Yellow
30µ" Gold	Red

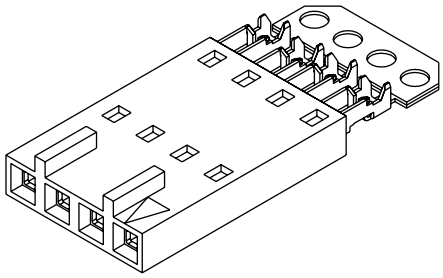
Wire Gauge Chart	
Code Stamped on Terminals	Wire Gauge (AWG)
A	24
B	26
C	28
D	22

Note: 2 circuit assemblies supplied as grouped pairs

2.54mm (.100") Pitch SL™ Insulation Displacement Connector Assembly

70400

Female, Single Row Version C , Front Ribs



Features and Benefits

- Sizes 2 to 25 circuits
- Preloaded, single piece construction allows for fully automated termination
- Packaged in plastic tubes to allow for automated manufacturing and to minimize product handling
- Front polarizing ribs prevent pin damage during disconnect; housing cannot be twisted off pins

Reference Information

Product Specification: PS- 70400
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2.54mm (.100") pitch SL headers
Use With Molex Cable: 7234, 7307, 7560, 7767, 8867, 8896, 8897, 24241, 24327, 24369 and 24389
Designed In: Inches

Electrical

Voltage: 250V
Current: 1.2A—28 AWG; 1.8A—26 AWG
3.0A—24 AWG; 3.0A—22 AWG

Electrical (continued)

Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 10,000 Megohms min.

Mechanical

Contact Retension to Housing: 17.79N (4 lb) min.
Mating Force: Tin—4.15N (.93 lb) per circuit;
Gold—3.08N (.70 lb) per circuit
Unmating Force: Tin—2.47N (.55 lb) per circuit;
Gold—.65N (.15 lb) per circuit
Durability: Tin—25 cycles; Gold—50 cycles

Physical

Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table
Insulation and Wire Gauge Range: .053" max. with 22 to 28 AWG stranded discrete wire of flat ribbon cable

Delivered on a carrier with 20 pieces per strip.

Actual Size  **Universal Polarizing Pin 40713-1**
Order No. 15-04-0292

Not For Use With C-Grid III™ Components

Wire Accommodation (AWG)	Order No.			Lead-free
	150m" Tin	15m" Gold	30m" Gold	
28	14-60-1XX1	14-56-3XX8	14-56-4XX4	Yes
26	14-60-0XX9	14-56-3XX6	14-56-4XX2	
24	14-60-0XX7	14-56-3XX5	14-56-4XX0	
22	14-56-7XX0	14-56-7XX5	14-56-8XX0	
Replace XX with no. of circuits, 02-25				

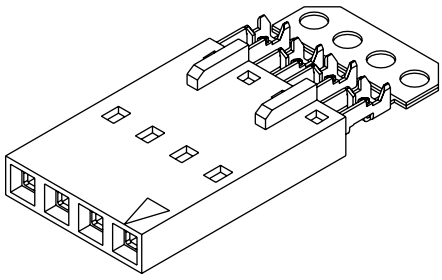
Plating Code (Stripe on Carrier Strip)	
Plating	Color
Tin	None
15µ" Gold	Yellow
30µ" Gold	Red

Wire Gauge Chart	
Code Stamped on Terminals	Wire Gauge (AWG)
A	24
B	26
C	28
D	22

Note: 2 circuit assemblies supplied as grouped pairs

2.54mm (.100") Pitch SL™ Insulation Displacement Connector Assembly

70400
Female, Single Row Version D, Back Ribs



Features and Benefits
- Sizes 2 to 25 circuits
- Preloaded, single piece construction allows for fully automated termination
- Packaged in plastic tubes to allow for automated manufacturing and to minimize product handling
- Back ribs maintain position of connector assembly in clips and prevent lateral movement when another assembly is removed
- End-to-end stackable inside a single row interim clip to form a larger single row connector
- Back-to-back and end-to-end stackable inside a dual row interim clip to form a dual row connector

Reference Information
Product Specification: PS-70400
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Accessories: Interim clips 70004 and 70013 to form female connector assembly
Use With Molex Cable: 7234, 7307, 7560, 7767, 8867, 8996, 8997, 24241, 24327, 24369 and 24389
Designed In: Inches

Electrical
Voltage: 250V
Current: 1.2A—28 AWG; 1.8A—26 AWG
3.0A—24 AWG; 3.0A—22 AWG
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Contact Retension to Housing: 17.79N (4 lb) min.
Mating Force: Tin—4.15N (.93 lb) per circuit;
Gold—3.08N (.70 lb) per circuit
Unmating Force: Tin—2.47N (.55 lb) per circuit;
Gold—.65N (.15 lb) per circuit
Durability: Tin—25 cycles; Gold—50 cycles

Physical
Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table
Insulation and Wire Gauge Range: .053" max. with 22 to 28 AWG stranded discrete wire or flat ribbon cable

Delivered on a carrier with 20 pieces per strip.

Actual Size  **Universal Polarizing Pin 40713-1**
Order No. 15-04-0292

Not For Use With C-Grid III™ Components

Wire Accommodation (AWG)	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
28	14-60-1XX2	14-56-3XX9	14-56-4XX5	Yes
26	14-60-1XX0	14-56-3XX7	14-56-4XX3	
24	14-60-0XX8	14-56-3XX4	14-56-4XX1	
22	14-56-7XX1	14-56-7XX6	14-56-8XX1	
Replace XX with no. of circuits, 02-25				

Plating Code (Stripe on Carrier Strip)	
Plating	Color
Tin	None
15µ" Gold	Yellow
30µ" Gold	Red

Note: The circuit 1 indicator for the 70400D will be superseded by the circuit 1 indicator of the 70004 and 70013 interim clips

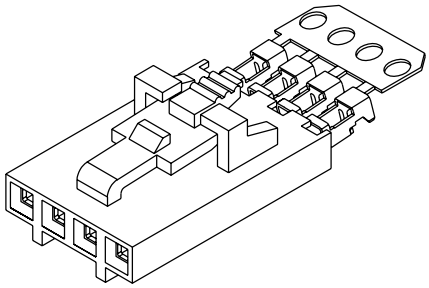
Wire Gauge Chart	
Code Stamped on Terminals	Wire Gauge (AWG)
A	24
B	26
C	28
D	22

Note: 2 circuit assemblies supplied as grouped pairs

2.54mm (.100") Pitch SL™ Insulation Displacement Connector Assembly

70400

Female, Single Row Version G, Positive Latch



Features and Benefits

- Sizes 2 to 25 circuits
- Preloaded, single piece construction allows for fully automated termination
- Packaged in plastic tubes to allow for automated manufacturing and to minimize product handling
- Positive latch secures connector to mating header or panel mount
- Front ribs prevent housing from being twisted off pins
- Anti-entanglement/overstress ribs prevent discrete wires from catching under latch during harness manufacturing and storage

Reference Information

Product Specification: PS-70400
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70018, 70107 A/B, 70541, 70543, 70545, 70551, 70553, 70555, 70634 and 74099
Use With Molex Cable: 7234, 7307, 7560, 7767, 8867, 8996, 8997, 24241, 24327, 24369 and 24389
Designed In: Inches

Electrical

Voltage: 250V
Current: 1.2A—28 AWG; 1.8A—26 AWG
3.0A—24 AWG; 3.0A—22 AWG
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 10,000 Megohms min.

Mechanical

Contact Retension to Housing: 17.79N (4 lb) min.
Mating Force: Tin—4.15N (.93 lb) per circuit;
Gold—3.08N (.70 lb) per circuit
Unmating Force: Tin—2.47N (.55 lb) per circuit;
Gold—.65N (.15 lb) per circuit
Durability: Tin—25 cycles; Gold—50 cycles

Physical

Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table
Insulation and Wire Gauge Range: .053" max. with 22 to 28 AWG stranded discrete wire or flat ribbon cable

Delivered on a carrier with 20 pieces per strip.

Actual Size  **Universal Polarizing Pin 40713-1**
Order No. 15-04-0292

Not For Use With C-Grid III™ Components

Wire Accommodation (AWG)	Order No.			Lead-free
	150m" Tin	15m" Gold	30m" Gold	
28	14-60-0XX6	14-56-2XX6	14-56-3XX3	Yes
26	14-60-0XX4	14-56-2XX4	14-56-3XX1	
24	14-60-0XX2	14-56-2XX2	14-56-2XX8	
22	14-56-7XX2	14-56-7XX7	14-56-8XX2	
Replace XX with no. of circuits, 02-25				

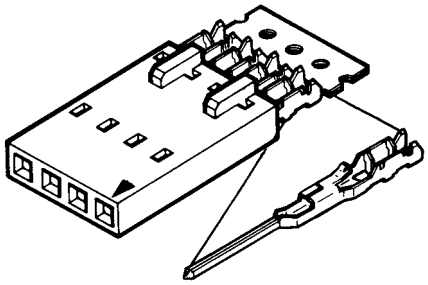
Plating Code (Stripe on Carrier Strip)	
Plating	Color
Tin	None
15µ" Gold	Yellow
30µ" Gold	Red

Wire Gauge Chart	
Code Stamped on Terminals	Wire Gauge (AWG)
A	24
B	26
C	28
D	22

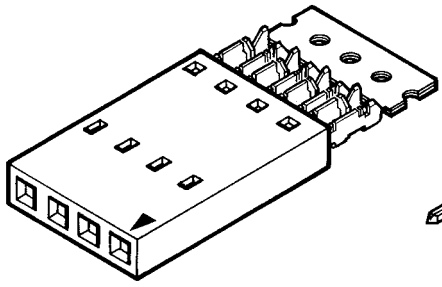
Note: 2 circuit assemblies supplied as grouped pairs

2.54mm (.100") Pitch SL™

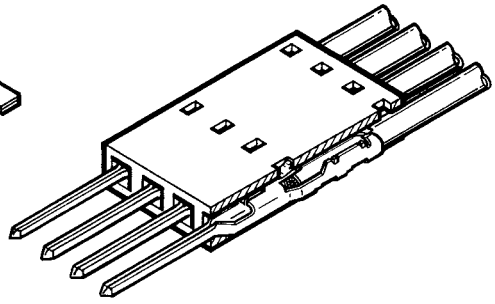
Specifications for Male Insulation Displacement Connector Assembly



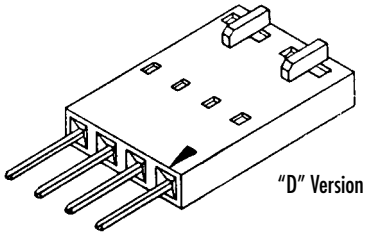
Shown: 70475 "D" Version Connector



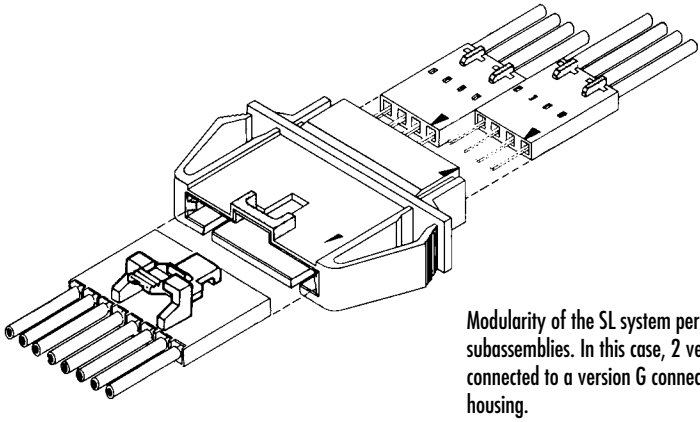
Stamped male terminals are preloaded into first window of housing for presentation of assemblies to application tooling. The carrier is color coded to identify the plating option, and the terminal is stamped with a letter code to distinguish wire gauge of the IDT slot.



After the cable/wires are terminated, terminals are fully inserted into the housing and locked into the second window. The carrier strip is then broken off. As a result of this automated termination*, the terminals are consistently locked into the housing without damage.



"D" Version

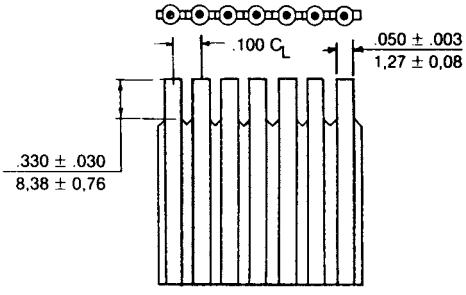


Modularity of the SL system permits gang loading of subassemblies. In this case, 2 version D pin assemblies are connected to a version G connector through a panel mount housing.

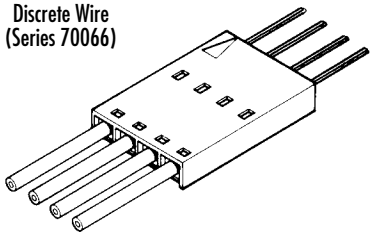
Wire and Cable Options

Recommended Molex Cable Engineering No. to use with 70400 Series connectors: 7234, 7307, 7560, 7767, 8867, 8996, 8997, 24241, 24327, 24369 and 24389

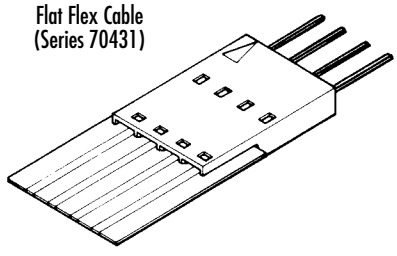
Notch Specification for Ribbon Cable



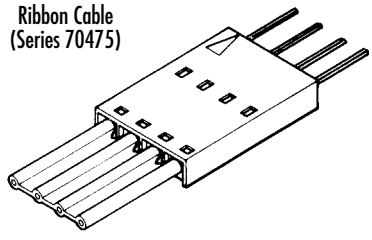
Discrete Wire (Series 70066)



Flat Flex Cable (Series 70431)



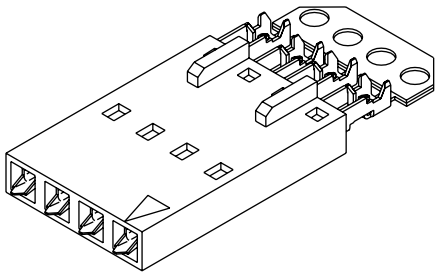
Ribbon Cable (Series 70475)



2.54mm (.100") Pitch SL™ Insulation Displacement Connector Assembly

70475

Male, Single Row Version D, Back Ribs



Features and Benefit

- Sizes 2 to 25 circuits
- Preloaded, single-piece construction allows for fully automated termination
- Packaged in plastic tubes to allow for automated manufacturing and to minimize product handling
- Back ribs maintain position of connector assembly in clips; prevents lateral movement when another assembly is removed
- End-to-end stackable inside a single row panel mount connector to form a larger single row connector
- Back-to-back and end-to-end stackable inside a dual row panel mount connector to form a dual row connector

Reference Information

Product Specification: PS-70475
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Accessories: Panel mount connectors 70018, 70022 and 70104 to form a male pin assembly
Mates with: 70058 and 71851 female crimp terminals, 70400 and 70430 connector assemblies and 0.64mm (.025") Square pins.
Use With Molex Cable: 7234, 7307, 7560, 7767, 8867, 8996, 8997, 24241, 24327, 24369 and 24389
Designed In: Inches

Electrical

Voltage: 250V
Current: 1.2A—28 AWG; 1.8A—26 AWG
3.0A—24 AWG; 3.0A—22 AWG
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 10,000 Megohms min.

Mechanical

Contact Retension to Housing: 17.79N (4 lb) min.
Mating Force: Tin—4.15N (.93 lb) per circuit;
Gold—3.08N (.70 lb) per circuit
Unmating Force: Tin—2.47N (.55 lb) per circuit;
Gold—.65N (.15 lb) per circuit
Durability: Tin—25 cycles; Gold—50 cycles

Physical

Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table
Insulation and Wire Gauge Range: .053" max. with 22 to 28 AWG stranded discrete wire or flat ribbon cable

Delivered on a carrier with 20 pieces per strip.

Actual Size 

Universal Polarizing Pin
40713-1
Order No. 15-04-0292

Not For Use With C-Grid III™ Components

Wire Accommodation (AWG)	Order No.			Lead-free
	150m" Tin	15m" Gold	30m" Gold	
28	14-45-18XX	14-44-21XX	14-44-49XX	Yes
26	14-45-06XX	14-44-16XX	14-44-29XX	
24	14-45-02XX	14-44-12XX	14-44-29XX	
22	14-44-52XX	14-44-53XX	14-44-54XX	
Replace XX with no. of circuits, 02-25				

Housing version D mates with female connectors when used in panel mount

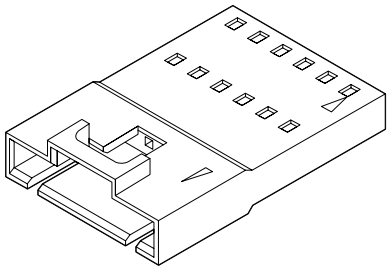
Plating Code (Stripe on Carrier Strip)	
Plating	Color
Tin	None
15µ" Gold	Yellow
30µ" Gold	Red

Wire Gauge Chart	
Code Stamped on Terminals	Wire Gauge (AWG)
A	24
B	26
C	28
D	22

Note: 2 circuit assemblies supplied as grouped pairs

2.54mm (.100") Pitch SL™ Wire-to-Wire Connector

70107
Single Row, Version A Without Mounting Ears



Features and Benefits
- Sizes 2 to 25 circuits
- Used primarily for remote interconnections
- Locking crown secures positive latch to connector
- Polarization slots guide front ribs of mating connector to prevent pin damage

Reference Information
Product Specification: PS-70021
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70066G, 70066N, 70400G and 70430G connector assemblies
Use With: 70021 crimp terminals
Designed In: Inches

Physical
Housing: Black polyester, UL 94V-0

Not For Use With C-Grid III™ Components

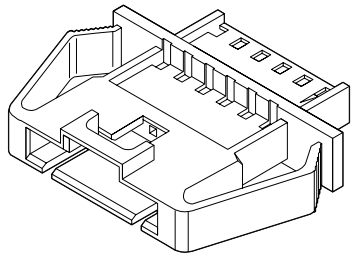
Circuits	Order No.
2	70107-0001
3	70107-0002
4	70107-0003
5	70107-0004
6	70107-0005
7	70107-0006
8	70107-0007
9	70107-0008

Circuits	Order No.
10	70107-0009
11	70107-0010
12	70107-0011
13	70107-0012
14	70107-0013
15	70107-0014
16	70107-0015
17	70107-0016

Circuits	Order No.
18	70107-0017
19	70107-0018
20	70107-0019
21	70107-0020
22	70107-0021
23	70107-0022
24	70107-0023
25	70107-0024

2.54mm (.100") Pitch SL™ Wire-to-Wire Panel Mount Connector

70107
Single Row, Version B With Mounting Ears



Features and Benefits
- Sizes 2 to 25 circuits
- Used primarily for remote interconnections
- Locking crown secures positive latch to connector
- Polarization slots guide front ribs of mating connector to prevent pin damage
- Mounting ears for insertion into .030 to .090" thick panels

Reference Information
Product Specification: PS-70021
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70066G, 70066N, 70400G and 70430G connector assemblies
Use With: 70021 crimp terminals
Designed In: Inches

Physical
Housing: Black polyester, UL 94V-0

Not For Use With C-Grid III™ Components

Circuits	Order No.
2	70107-0036
3	70107-0037
4	70107-0038
5	70107-0039
6	70107-0040
7	70107-0041
8	70107-0042
9	70107-0043

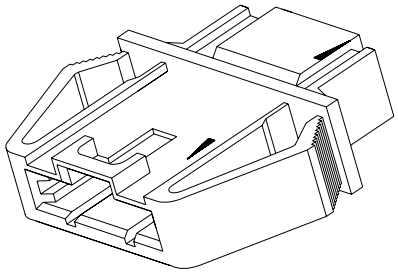
Circuits	Order No.
10	70107-0044
11	70107-0045
12	70107-0046
13	70107-0047
14	70107-0048
15	70107-0049
16	70107-0050
17	70107-0051

Circuits	Order No.
18	70107-0052
19	70107-0053
20	70107-0054
21	70107-0055
22	70107-0056
23	70107-0057
24	70107-0058
25	70107-0059

2.54mm (.100") Pitch SL™ Wire-to-Wire Panel Mount Connector

70018

Single Row Modular Branch



Features and Benefits

- Sizes 2 to 25 circuits
- Used primarily for remote interconnections
- Locking crown secures positive latch to connector
- Polarization slots guide front ribs of mating connector to prevent pin damage
- Mounting ears for insertion into .030 to .090" thick panels
- Mates modular branch pin assemblies to single connector assembly

Reference Information

Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70066G, 70066N, 70400G and 70430G front side, and 70066D and 70475D pin assemblies back side
Designed In: Inches

Physical

Housing: Black polyester, UL 94V-0

Not For Use With Molex C-Grid III™ Components

Circuits	Order No.
2	50-65-0202
3	50-65-0203
4	50-65-0204
5	50-65-0205
6	50-65-0206
7	50-65-0207
8	50-65-0208
9	50-65-0209

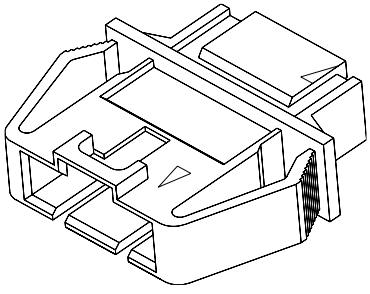
Circuits	Order No.
10	50-65-0210
11	50-65-0211
12	50-65-0212
13	50-65-0213
14	50-65-0214
15	50-65-0215
16	50-65-0216
17	50-65-0217

Circuits	Order No.
18	50-65-0218
19	50-65-0219
20	50-65-0220
21	50-65-0221
22	50-65-0222
23	50-65-0223
24	50-65-0224
25	50-65-0225

2.54mm (.100") Pitch SL™ Wire-to-Wire Panel Mount Connector

70104

Single Row Modular Branch



Features and Benefits

- Sizes 4 to 25 circuits
- Used primarily for remote interconnections
- Locking crown secures positive latch to connector
- Polarization slots guide front ribs of mating connector to prevent pin damage
- Mounting ears for insertion into .030 to .090" thick panels
- Mates single or modular branch pin assemblies with modular branch connector assemblies in an interim clip

Reference Information

Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70004 front side, and 70066D and 70475D pin assemblies back side
Designed In: Inches

Physical

Housing: Black polyester, UL 94V-0

Not For Use With Molex C-Grid III™ Components

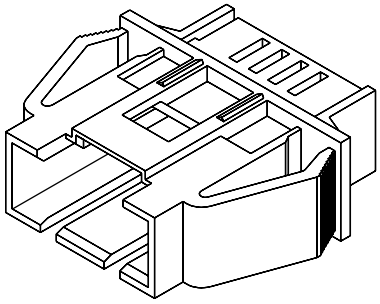
Circuits	Order No.
4	50-65-0104
5	50-65-0105
6	50-65-0106
7	50-65-0107
8	50-65-0108
9	50-65-0109
10	50-65-0110
11	50-65-0111

Circuits	Order No.
12	50-65-0112
13	50-65-0113
14	50-65-0114
15	50-65-0115
16	50-65-0116
17	50-65-0117
18	50-65-0118
19	50-65-0119

Circuits	Order No.
20	50-65-0120
21	50-65-0121
22	50-65-0122
23	50-65-0123
24	50-65-0124
25	50-65-0125

2.54mm (.100") Pitch SL™ Wire-to-Wire Panel Mount Connector

70022
Dual Row Modular Branch



Features and Benefits
- Sizes 6 to 50 circuits
- Used primarily for high density remote interconnections
- Locking crown secures positive latch to connector
- Polarization slots guide front ribs of mating connector to prevent pin damage
- Mates modular branch pin assemblies to modular branch connector assemblies in a dual row configuration

Reference Information
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70013 interim clip front side, and side-to-side stacked 70066D and 70475D on back side
Designed In: Inches

Physical
Housing: Black polyester, UL 94V-0

Not For Use With Molex C-Grid III™ Components

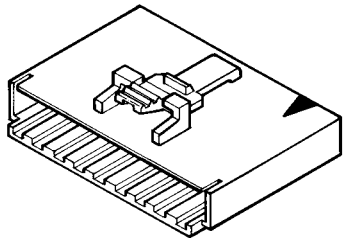
Circuits	Order No.
6	50-65-0006
8	50-65-0008
10	50-65-0010
12	50-65-0012
14	50-65-0014
16	50-65-0016
18	50-65-0018
20	50-65-0020

Circuits	Order No.
22	50-65-0022
24	50-65-0024
26	50-65-0026
28	50-65-0028
30	50-65-0030
32	50-65-0032
34	50-65-0034
36	50-65-0036

Circuits	Order No.
38	50-65-0038
40	50-65-0040
42	50-65-0042
44	50-65-0051
46	50-65-0046
48	50-65-0048
50	50-65-0050

2.54mm (.100") Pitch SL™ Interim Clip

70004
Single Row Modular Branch



Features and Benefits
- Sizes 4 to 25 circuits
- Positive latch retains clip to panel mount or 180° pocket headers
- Anti-entanglement/overstress ribs prevent discrete wires from catching under latch during harness manufacturing and storage
- Stacks 70066/70400D assemblies end-to-end to form a larger single row connector

Reference Information
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70104, 70563 and 70575
Designed In: Inches

Physical
Housing: Black polyester, UL 94V-0

Not For Use With Molex C-Grid III™ Components

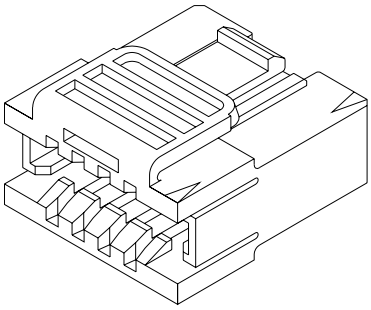
Circuits	Order No.
4	15-04-5042
5	15-04-5052
6	15-04-5062
7	15-04-5072
8	15-04-5082
9	15-04-5092
10	15-04-5102
11	15-04-5112

Circuits	Order No.
12	15-04-5122
13	15-04-5132
14	15-04-5142
15	15-04-5152
16	15-04-5162
17	15-04-5172
18	15-04-5182
19	15-04-5192

Circuits	Order No.
20	15-04-5202
21	15-04-5212
22	15-04-5222
23	15-04-5232
24	15-04-5242
25	15-04-5252

2.54mm (.100") Pitch SL™ Interim Clip

70013
Dual Row



Features and Benefits
- Sizes 6 to 50 circuits
- Positive latch retains clip to dual row panel mount or headers
- Optional front polarization rib available (version B)
- Stacks single row 70066/70400D assemblies side-to-side and end-to-end to form a larger dual row connector, accepts 70450C dual row connector to provide positive latch feature

Reference Information
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70013, Version A—8724B and 70567B
70013, Version B—70022, 70567C, 70568, 71349 and 70229
Use With: 70066D housing and 70021 terminals, 70450C housing and 70021 terminals, 70430D and 70400D connector assemblies
Designed In: Inches

Physical
Housing: Black polyester, UL 94V-0

Not For Use With Molex C-Grid III™ Components

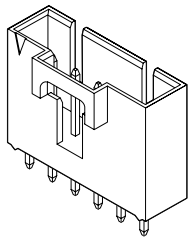
Circuits	Order No.	
	Version A Without Ribs	Version B With Ribs
6	15-04-5061	15-04-5064
8	15-04-5081	15-04-5084
10	15-04-5101	15-04-5104
12	15-04-5121	15-04-5124
14	15-04-5141	15-04-5144
16	15-04-5161	15-04-5164
18	15-04-5181	15-04-5184
20	15-04-5201	15-04-5204

Circuits	Order No.	
	Version A Without Ribs	Version B With Ribs
22	15-04-5221	15-04-5224
24	15-04-5241	15-04-5244
26	15-04-5261	15-04-5264
28	15-04-5281	15-04-5284
30	15-04-5301	15-04-5304
32	15-04-5321	15-04-5324
34	15-04-5341	15-04-5344
36	15-04-5361	15-04-5364

Circuits	Order No.	
	Version A Without Ribs	Version B With Ribs
38	15-04-5381	15-04-5384
40	15-04-5401	15-04-5404
42	15-04-5421	15-04-5424
44	15-04-5441	15-04-5444
46	15-04-5461	15-04-5464
48	15-04-5481	15-04-5484
50	15-04-5501	15-04-5504

2.54mm (.100") Pitch SL™ Wire-to-Board Shrouded Header

70543
Single Row, .120" Pocket Vertical



Features and Benefits
- Sizes 2 to 25 circuits
- Locking crown secures positive latch to header
- Polarization slots guide front ribs of mating connector to prevent pin damage
- Standoffs minimize flux retention

Reference Information
Product Specification: PS-70541
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70066G, 70066N, 70400G and 70430G
Designed In: Inches

Electrical
Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Durability: Tin—25 cycles; Gold—50 cycles

Physical
Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table

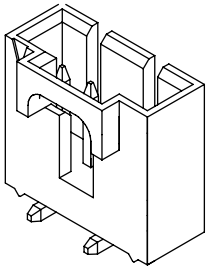
Not For Use With C-Grid III™ Components

Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
2	70543-0036	70543-0001	70543-0106	Yes
3	70543-0037	70543-0002	70543-0107	
4	70543-0038	70543-0003	70543-0108	
5	70543-0039	70543-0004	70543-0109	
6	70543-0040	70543-0005	70543-0110	
7	70543-0041	70543-0006	70543-0111	
8	70543-0042	70543-0007	70543-0112	
9	70543-0043	70543-0008	70543-0113	
10	70543-0044	70543-0009	70543-0114	
11	70543-0045	70543-0010	70543-0115	
12	70543-0046	70543-0011	70543-0116	
13	70543-0047	70543-0012	70543-0117	

Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
14	70543-0048	70543-0013	70543-0118	Yes
15	70543-0049	70543-0014	70543-0119	
16	70543-0050	70543-0015	70543-0120	
17	70543-0051	70543-0016	70543-0121	
18	70543-0052	70543-0017	70543-0122	
19	70543-0053	70543-0018	70543-0123	
20	70543-0054	70543-0019	70543-0124	
21	70543-0055	70543-0020	70543-0125	
22	70543-0056	70543-0021	70543-0126	
23	70543-0057	70543-0022	70543-0127	
24	70543-0058	70543-0023	70543-0128	
25	70543-0059	70543-0024	70543-0129	

2.54mm (.100") Pitch SL™ Wire-to-Board Shrouded Header

74099
Single Row, .120" Pocket Vertical, SMT



Features and Benefits
- Size 3 to 24 circuits
- Locking crown secures positive latch to header
- Polarization slots guide front ribs of mating connector to prevent pin damage
- Standoffs minimize flux interference
- Surface Mount Compatible

Reference Information
Product Specification: PS-70541
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates with: 70066G, 70066N, 70400G and 70430G
Designed In: Inches

Electrical
Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical
Durability: Tin—25 cycles; Gold—50 cycles

Physical
Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table

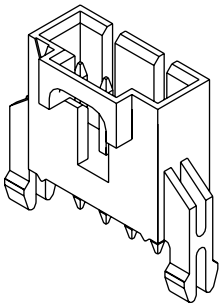
Not For Use With C-Grid III™ Components

	Tin	15µ" Gold	30µ" Gold	Lead-free
3	74099-0003	74099-1003	74099-2003	
4	74099-0004	74099-1004	74099-2004	
5	74099-0005	74099-1005	74099-2005	
6	74099-0006	74099-1006	74099-2006	
7	74099-0007	74099-1007	74099-2007	
8	74099-0008	74099-1008	74099-2008	Yes
9	74099-0009	74099-1009	74099-2009	
10	74099-0010	74099-1010	74099-2010	
11	74099-0011	74099-1011	74099-2011	
12	74099-0012	74099-1012	74099-2012	
13	74099-0013	74099-1013	74099-2013	

	Tin	15µ" Gold	30µ" Gold	Lead-free
14	74099-0014	74099-1014	74099-2014	
15	74099-0015	74099-1015	74099-2015	
16	74099-0016	74099-1016	74099-2016	
17	74099-0017	74099-1017	74099-2017	
18	74099-0018	74099-1018	74099-2018	
19	74099-0019	74099-1019	74099-2019	Yes
20	74099-0020	74099-1020	74099-2020	
21	74099-0021	74099-1021	74099-2021	
22	74099-0022	74099-1022	74099-2022	
23	74099-0023	74099-1023	74099-2023	
24	74099-0024	74099-1024	74099-2024	

2.54mm (.100") Pitch SL™ Wire-to-Board Shrouded Header

70541
Single Row, .120" Pocket Vertical, Split Pegs



Features and Benefits
- Size 2 to 10 circuits
- PCB locks hold header in place until permanently soldered
- Locking crown secures positive latch to header
- Polarization slots guide front ribs of mating connector to prevent pin damage
- Standoffs minimize flux retention

Reference Information
Product Specification: PS-70541
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70066G, 70066N, 70400G and 70430G
Designed In: Inches

Electrical
Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical
Insertion Force to PCB: 44.5 N (10 lb)
Durability: Tin—25 cycles; Gold—50 cycles

Physical
Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table

Not For Use With C-Grid III™ Components

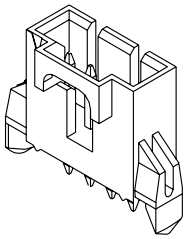
Circuits	Order No.			Lead-free
	15µ" Min. Gold	30µ" Min. Gold	150µ" Tin	
2	70541-0036	70541-0071	70541-0001	
3	70541-0037	70541-0072	70541-0002	
4	70541-0038	70541-0073	70541-0003	Yes
5	70541-0039	70541-0074	70541-0004	
6	70541-0040	70541-0075	70541-0005	

Circuits	Order No.			Lead-free
	15µ" Min. Gold	30µ" Min. Gold	150µ" Tin	
7	70541-0041	70541-0076	70541-0006	
8	70541-0042	70541-0077	70541-0007	
9	70541-0043	70541-0078	70541-0008	Yes
10	70541-0044	70541-0079	70541-0009	

2.54mm (.100") Pitch SL™ Wire-to-Board Shrouded Header

70545

Single Row, .120" Pocket Vertical, Tri-Peg



Features and Benefits

- Size 2 to 25 circuits
- PCB locks hold header in place until permanently soldered
- Locking crown secures positive latch to header
- Polarization slots guide front ribs of mating connector to prevent pin damage
- Standoffs minimize flux retention

Reference Information

Product Specification: PS-70541
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70066G, 70066N, 70400G and 70430G
Designed In: Inches

Electrical

Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 10,000 Megohms min.

Mechanical

Insertion Force to PCB: 44.50N (10 lb)
Durability: Tin—25 cycles; Gold—50 cycles

Physical

Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table

Not For Use With C-Grid III™ Components

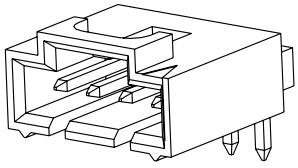
Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
2	70545-0001	70545-0036	70545-0071	Yes
3	70545-0002	70545-0037	70545-0072	
4	70545-0003	70545-0038	70545-0073	
5	70545-0004	70545-0039	70545-0074	
6	70545-0005	70545-0040	70545-0075	
7	70545-0006	70545-0041	70545-0076	
8	70545-0007	70545-0042	70545-0077	
9	70545-0008	70545-0043	70545-0078	
10	70545-0009	70545-0044	70545-0079	
11	70545-0010	70545-0045	70545-0080	
12	70545-0011	70545-0046	70545-0081	
13	70545-0012	70545-0047	70545-0082	

Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
14	70545-0013	70545-0048	70545-0083	Yes
15	70545-0014	70545-0049	70545-0084	
16	70545-0015	70545-0050	70545-0085	
17	70545-0016	70545-0051	70545-0086	
18	70545-0017	70545-0052	70545-0087	
19	70545-0018	70545-0053	70545-0088	
20	70545-0019	70545-0054	70545-0089	
21	70545-0020	70545-0055	70545-0090	
22	70545-0021	70545-0056	70545-0091	
23	70545-0022	70545-0057	70545-0092	
24	70545-0023	70545-0058	70545-0093	
25	70545-0024	70545-0059	70545-0094	

2.54mm (.100") Pitch SL™ Wire-to-Board Shrouded Header

70553

Single Row, .120" Pocket Right Angle, Low Profile



Features and Benefits

- Sizes 2 to 25 circuits
- Locking crown secures positive latch to header
- Polarization slots guide front ribs of mating connector to prevent pin damage
- Standoffs minimize flux retention

Reference Information

Product Specification: PS-70541
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70066G, 70066N, 70400G and 70430G
Designed In: Inches

Electrical

Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 10,000 Megohms min.

Mechanical

Durability: Tin—25 cycles; Gold—50 cycles

Physical

Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table

Not For Use With C-Grid III™ Components

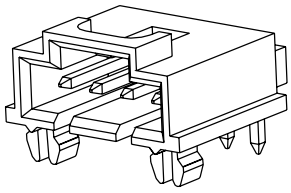
Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
2	70553-0036	70553-0001	70553-0106	Yes
3	70553-0037	70553-0002	70553-0107	
4	70553-0038	70553-0003	70553-0108	
5	70553-0039	70553-0004	70553-0109	
6	70553-0040	70553-0005	70553-0110	
7	70553-0041	70553-0006	70553-0111	
8	70553-0042	70553-0007	70553-0112	
9	70553-0043	70553-0008	70553-0113	
10	70553-0044	70553-0009	70553-0114	
11	70553-0045	70553-0010	70553-0115	
12	70553-0046	70553-0011	70553-0116	
13	70553-0047	70553-0012	70553-0117	

Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
14	70553-0048	70553-0013	70553-0118	Yes
15	70553-0049	70553-0014	70553-0119	
16	70553-0050	70553-0015	70553-0120	
17	70553-0051	70553-0016	70553-0121	
18	70553-0052	70553-0017	70553-0122	
19	70553-0053	70553-0018	70553-0123	
20	70553-0054	70553-0019	70553-0124	
21	70553-0055	70553-0020	70553-0125	
22	70553-0056	70553-0021	70553-0126	
23	70553-0057	70553-0022	70553-0127	
24	70553-0058	70553-0023	70553-0128	
25	70553-0059	70553-0024	70553-0129	

2.54mm (.100") Pitch SL™ Wire-to-Board Shrouded Header

70551

Single Row, .120" Pocket Right Angle, Split Peg



Features and Benefits
- Sizes 2 to 25 circuits
- PCB locks hold header in place until permanently soldered
- Locking crown secures positive latch connector to header
- Polarization slots guide front ribs of mating connector to prevent pin damage
- Standoffs minimize flux retention

Reference Information
Product Specification: PS-70541
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates with: 70066, 70066N, 70400 and 70430G
Designed in: Inches

Electrical
Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion force to PCB: 44.48N (10 lbs.)
Durability: Tin — 25 cycles; Gold — 50 cycles

Physical
Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table

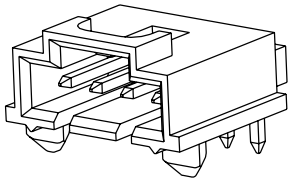
Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
2	70551-0001	70551-0036	70551-0071	Yes
3	70551-0002	70551-0037	70551-0072	
4	70551-0003	70551-0038	70551-0073	
5	70551-0004	70551-0039	70551-0074	
6	70551-0005	70551-0040	70551-0075	
7	70551-0006	70551-0041	70551-0076	
8	70551-0007	70551-0042	70551-0077	
9	70551-0008	70551-0043	70551-0078	
10	70551-0009	70551-0044	70551-0079	
11	70551-0010	70551-0045	70551-0080	
12	70551-0011	70551-0046	70551-0081	
13	70551-0012	70551-0047	70551-0082	

Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
14	70551-0013	70551-0048	70551-0083	Yes
15	70551-0014	70551-0049	70551-0084	
16	70551-0015	70551-0050	70551-0085	
17	70551-0016	70551-0051	70551-0086	
18	70551-0017	70551-0052	70551-0087	
19	70551-0018	70551-0053	70551-0088	
20	70551-0019	70551-0054	70551-0089	
21	70551-0020	70551-0055	70551-0090	
22	70551-0021	70551-0056	70551-0091	
23	70551-0022	70551-0057	70551-0092	
24	70551-0023	70551-0058	70551-0093	
25	70551-0024	70551-0059	70551-0094	

2.54mm (.100") Pitch SL™ Wire-to-Board Shrouded Header

70555

Single Row, .120" Pocket Right Angle, Low Profile Tri-Peg



Features and Benefits
- Sizes 2 to 25 circuits
- PCB locks hold header in place until permanently soldered
- Locking crown secures positive latch to header
- Polarization slots guide front ribs of mating connector to prevent pin damage
- Standoffs minimize flux retention

Reference Information
Product Specification: PS-70541
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70066G, 70066N, 70400G and 70430G
Designed In: Inches

Electrical
Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force to PCB: 44.50N (10 lb)
Durability: Tin—25 cycles; Gold—50 cycles

Physical
Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table

Not For Use With C-Grid III™ Components

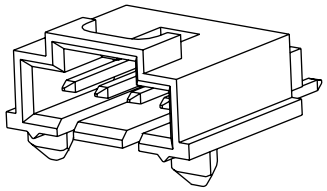
Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
2	70555-0001	70555-0036	70555-0071	Yes
3	70555-0002	70555-0037	70555-0072	
4	70555-0003	70555-0038	70555-0073	
5	70555-0004	70555-0039	70555-0074	
6	70555-0005	70555-0040	70555-0075	
7	70555-0006	70555-0041	70555-0076	
8	70555-0007	70555-0042	70555-0077	
9	70555-0008	70555-0043	70555-0078	
10	70555-0009	70555-0044	70555-0079	
11	70555-0010	70555-0045	70555-0080	
12	70555-0011	70555-0046	70555-0081	
13	70555-0012	70555-0047	70555-0082	

Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
14	70555-0013	70555-0048	70555-0083	Yes
15	70555-0014	70555-0049	70555-0084	
16	70555-0015	70555-0050	70555-0085	
17	70555-0016	70555-0051	70555-0086	
18	70555-0017	70555-0052	70555-0087	
19	70555-0018	70555-0053	70555-0088	
20	70555-0019	70555-0054	70555-0089	
21	70555-0020	70555-0055	70555-0090	
22	70555-0021	70555-0056	70555-0091	
23	70555-0022	70555-0057	70555-0092	
24	70555-0023	70555-0058	70555-0093	
25	70555-0024	70555-0059	70555-0094	

2.54mm (.100") Pitch SL™ Wire-to-Board Shrouded Header

70634

Single Row, .120" Pocket Right Angle, Low Profile SMT with Tri Peg



Features and Benefits
- Sizes 2 to 25 circuits
- Press-fit peg maximizes retention to PCB during soldering process
- Locking crown secures positive latch to header
- Standoffs minimize flux interference

Reference Information
Product Specification: PS-70541
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates with: 70066G, 70066N, 70400G and 70430G
Designed in: Inches

Electrical
Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion force to PCB: 44.48N (10 lbs.)
Durability: Tin — 25 cycles; Gold — 50 cycles

Physical
Housing: Black polyester, UL 94V-0
Contact: Copper Alloy

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
2	15-91-3024	15-91-2025	15-91-3023	Yes
3	15-91-3034	15-91-2035	15-91-3033	
4	15-91-3044	15-91-2045	15-91-3043	
5	15-91-3054	15-91-2055	15-91-3053	
6	15-91-3064	15-91-2065	15-91-3063	
7	15-91-3074	15-91-2075	15-91-3073	
8	15-91-3084	15-91-2085	15-91-3083	
9	15-91-3094	15-91-2095	15-91-3093	
10	15-91-3104	15-91-2105	15-91-3103	
11	15-91-3114	15-91-2115	15-91-3113	
12	15-91-3124	15-91-2125	15-91-3123	
13	15-91-3134	15-91-2135	15-91-3133	

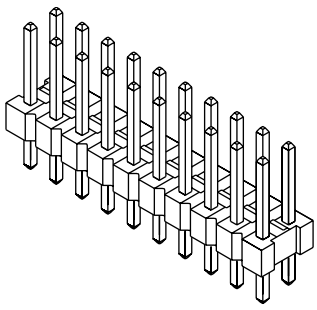
Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
14	15-91-3144	15-91-2145	15-91-3143	Yes
15	15-91-3154	15-91-2155	15-91-3153	
16	15-91-3164	15-91-2165	15-91-3163	
17	15-91-3174	15-91-2175	15-91-3173	
18	15-91-3184	15-91-2185	15-91-3183	
19	15-91-3194	15-91-2195	15-91-3193	
20	15-91-3204	15-91-2205	15-91-3203	
21	15-91-3214	15-91-2215	15-91-3213	
22	15-91-3224	15-91-2225	15-91-3223	
23	15-91-3234	15-91-2235	15-91-3233	
24	15-91-3244	15-91-2245	15-91-3243	
25	15-91-3254	15-91-2255	15-91-3253	

www.molex.com/product/sl_products.html

2.54mm (.100") Pitch C-Grid® Breakaway Header

70280

Dual Row, Vertical High-Temperature



Features and Benefits
- Sizes 4 to 100 circuits
- Stackable side-to-side and end-to-end (on unbroken edges)
- Easy breakaway to smaller sizes
- Drawn .025" square wire provides 4-sided smooth surface for quality interface

Reference Information
Product Specifications: PS-70280
Packaging: Bag or tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 7859 Shunts, C-Grid Receptacles, SL Crimp, FFC and IDT Housings
Designed In: Inches

Electrical
Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical
Pin Retention to Header: 17.79N (4 lb)
Durability: Tin—25 cycles; Gold—50 cycles

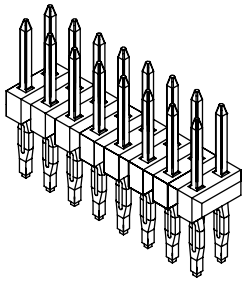
Physical
Housing: Black high-temperature thermal plastic, UL 94V-0
Contact: Copper Alloy
Plating: See Table

Not For Use With Molex C-Grid III™ Components

Plating Option	Order No.	Lead-free
150µ" Tin	10-89-7XX1	Yes
15µ" Gold	10-89-7XX2	
30µ" Gold	10-89-7XX0	
Replace XX with no. of circuits, 04-80 (even only). See sales drawing for 82-100.		

2.54mm (.100") Pitch C-Grid® Breakaway Header

75102
Dual Row Vertical, CPI



Features and Benefits
- Size 4 to 80 circuits
- Stackable side-to-side and end-to-end (on unbroken edges)
- Easy breakaway to smaller sizes
- Eye-of-the-needle compliant pin for press-fit applications

Reference Information
Product Specification: PS-75100-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 7859 shunts, C-Grid receptacles, SL crimp, FFC and IDT housings
Designed In: Inches

Electrical
Voltage: 250V
Current: 3.0A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical
Durability: Tin—25 cycles; Gold—50 cycles

Physical
Housing: Black Polyester, UL 94V-0
Contact: Copper Alloy
Plating: See table

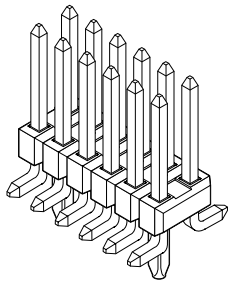
Not For Use With C-Grid III™ Components

Circuits	Order No.			Lead-free
	Tin	15" Gold	30" Gold	
4	75102-0079	75102-0040	75102-0001	
6	75102-0080	75102-0041	75102-0002	
8	75102-0081	75102-0042	75102-0003	
10	75102-0082	75102-0043	75102-0004	
12	75102-0083	75102-0044	75102-0005	
14	75102-0084	75102-0045	75102-0006	
16	75102-0085	75102-0046	75102-0007	
18	75102-0086	75102-0047	75102-0008	
20	75102-0087	75102-0048	75102-0009	
22	75102-0088	75102-0049	75102-0010	
24	75102-0089	75102-0050	75102-0011	
26	75102-0090	75102-0051	75102-0012	
28	75102-0091	75102-0052	75102-0013	
30	75102-0092	75102-0053	75102-0014	
32	75102-0093	75102-0054	75102-0015	
34	75102-0094	75102-0055	75102-0016	
36	75102-0095	75102-0056	75102-0017	
38	75102-0096	75102-0057	75102-0018	
40	75102-0097	75102-0058	75102-0019	
42	75102-0098	75102-0059	75102-0020	Yes
44	75102-0099	75102-0060	75102-0021	
46	75102-0100	75102-0061	75102-0022	
48	75102-0101	75102-0062	75102-0023	
50	75102-0102	75102-0063	75102-0024	
52	75102-0103	75102-0064	75102-0025	
54	75102-0104	75102-0065	75102-0026	
56	75102-0105	75102-0066	75102-0027	
58	75102-0106	75102-0067	75102-0028	
60	75102-0107	75102-0068	75102-0029	
62	75102-0108	75102-0069	75102-0030	
64	75102-0109	75102-0070	75102-0031	
66	75102-0110	75102-0071	75102-0032	
68	75102-0111	75102-0072	75102-0033	
70	75102-0112	75102-0073	75102-0034	
72	75102-0113	75102-0074	75102-0035	
74	75102-0114	75102-0075	75102-0036	
76	75102-0115	75102-0076	75102-0037	
78	75102-0116	75102-0077	75102-0038	
80	75102-0117	75102-0078	75102-0039	

2.54mm (.100") Pitch C-Grid® Breakaway Header

71308

Dual Row, SMT, Vertical With or Without Peg



Features and Benefits

- Available with or without retention pegs
- Gull wing surface mount tails
- Vapor phase/IR reflow process compatible
- Stackable end-to-end (on unbroken edges)
- Drawn .025" square wire provides 4-sided smooth interface

Reference Information

Product Specification: PS-71308
Packaging: Tube, tape and reel* or bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 7859 Shunts, C-Grid Receptacles, SL Crimp, FFC and IDT Housings
Designed In: Inches

* Contact Molex for tape and reel order numbers

Electrical

Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Pin Retention to Header: 17.79N (4 lb)
Insertion Force to PCB: 35.58N (8 lb) per peg
Durability: Tin—25 cycles; Gold—50 cycles

Physical

Housing: Black high-temperature thermal plastic, UL 94V-0
Contact: Copper Alloy
Plating: See Table
Screened Paste Thickness: .010 to .015"

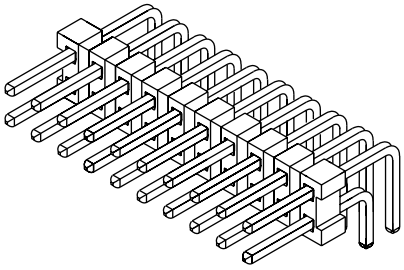
Not For Use With Molex C-Grid III™ Components

Plating Option	Order No.		Lead-free
	Without PCB Retention Pegs	With PCB Retention Pegs	
150µ" Tin	15-91-2XX0	15-91-1XX1	Yes
15µ" Gold	15-91-0XX0	15-91-1XX2	
30µ" Gold	15-91-3XX0	15-91-1XX3	
Replace XX with no. of circuits, 04-80 (even only). See Sales drawing for 82-100.			

2.54mm (.100") C-Grid® Breakaway Header

71764

Low Profile, Dual Row Right Angle, High-Temperature



Features and Benefits

- Sizes 4 to 30 circuits
- Low profile: .200" high
- Stackable end-to-end (on unbroken edges)
- Easy breakaway to smaller sizes
- Drawn .025" square wire provides 4-sided smooth surface for quality interface
- High-temperature wafer for SMT compatibility

Reference Information

Product Specification: PS-71764
Packaging: Tube or bag
UL File No.: E29179
Mates With: 7859 Shunts, C-Grid Receptacles, SL Crimp, FFC and IDT Housings
Designed In: Inches

Electrical

Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Pin Retention to Header: 17.79N (4 lb)
Durability: Tin—25 cycles; Gold—50 cycles

Physical

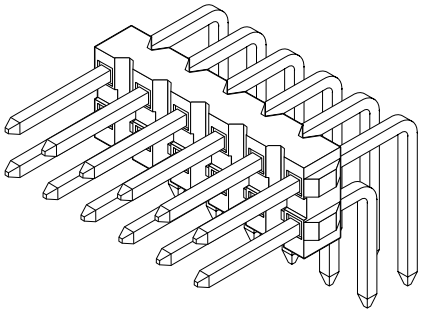
Housing: Black high-temperature thermal plastic, UL 94V-0
Contact: Copper Alloy
Plating: See Table

Not For Use With Molex C-Grid III™ Components

Plating Option	Order No.	Lead-free
15µ" min. select Gold	71764-01XX	Yes
30µ" min. select Gold	71764-02XX	
150µ" Tin/Lead, Nickel overall	71764-00XX	
Replace XX with no. of circuits, 04-30 (even only)		

2.54mm (.100") Pitch C-Grid® Breakaway Header

70216
High Profile, Dual Row Right Angle



Features and Benefits
- Sizes 4 to 30 circuits
- High profile: .220" high
- Stackable end-to-end (on unbroken edges)
- Easy breakaway to smaller sizes
- Drawn .025" square wire provides 4-sided smooth surface for quality interface

Reference Information
Product Specification: PS-70216
Packaging: Tube or bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 7859 Shunts, C-Grid Receptacles, SL Crimp, FFC and IDT Housings
Designed In: Inches

Electrical
Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical
Pin Retention to Header: 17.79N (4 lb)
Durability: Tin—25 cycles; Gold—50 cycles

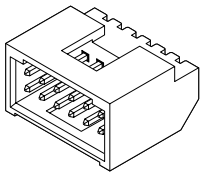
Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table

Not For Use With Molex C-Grid III™ Components

Plating Option	Order No.	Lead-free
150µ" Tin	10-88-3XX1	Yes
15µ" Gold	10-89-4XX2	
30µ" Gold	10-89-4XX6	
Replace XX with no. of circuits, 04-30 (even only)		

2.54mm (.100") Pitch C-Grid® Shrouded Header

8724
Dual Row Right Angle



Features and Benefits
- Polarized
- Latch window retains positive lock on 70013 after mating
- 4 wall shielding provides unmated pin protection
- Standoffs minimize flux retention
- 4-sided smooth surface pin for quality interface

Reference Information
Product Specification: PS-8723
Packaging: Tube
UL File No.: E29179
Mates With: 8724 Version A—C-Grid Receptacles and 70450A crimp housing
8724 Version B—70013A (10 to 50 circuits)
Designed In: Inches

Electrical
Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical
Pin Retention to Housing: 17.79N (4 lb)
Durability: Tin—25 cycles; Gold—50 cycles

Physical
Housing: Black nylon, UL 94V-0
Contact: Copper Alloy
Plating: See Table

Not For Use With C-Grid III™ Components

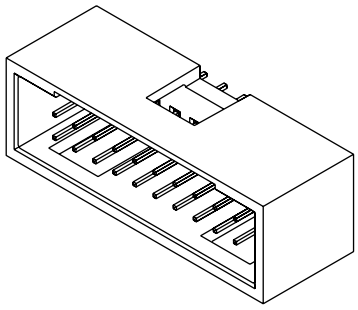
Plating Option	Order No.		Lead-free
	Version A* Pin to Side Wall Distance = 1.68mm (.066")	Version B Pin to Side Wall Distance = 3.81mm (.150")	
150µ" Tin	15-42-70XX	15-42-72XX	Yes
15µ" Gold	15-29-70XX	15-29-72XX	
30µ" Gold	15-41-80XX	15-41-82XX	
Replace XX with no. of circuits, 06-72 (even only)			

Note: No latching window available for 6-circuit and 8-circuit—Version A; No latching window available for 6-circuit—Version B
* Version A is never to be used with interim clips

2.54mm (.100") Pitch C-Grid® Shrouded Header

70567

Dual Row, High-Temperature Through Hole without Pegs Vertical



Plating Option	Order No.	Lead-free
	End Wall = 1.68mm (.066")	
15µ" min. select Gold	15-80-0XX3	Yes
30µ" min. select Gold	15-80-0XX5	
150µ" Tin/Lead	15-80-0XX1	
Replace XX with no. of circuits, 06-72 (even only)		

Features and Benefits

- Sizes 6 to 72 circuits
- Robotically insertable and compatible
- Board retention pegs hold header in place until they are permanently secured by soldering
- Latch window retains modular connector assemblies after mating
- Standoffs minimize flux retention
- Drawn .025" square wire provides 4-sided smooth surface for quality interface

Reference Information

Product Specification: PS-70567
Packaging: Tube
Mates With:
Version A—C-Grid receptacles, 70450A crimp housing
Version B—70013A (10-50 circuits)
Version C—70013B (10-50 circuits)
Designed In: Inches

Electrical

Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 17.79N (4 lb)
Durability: Tin—25 cycles; Gold—50 cycles

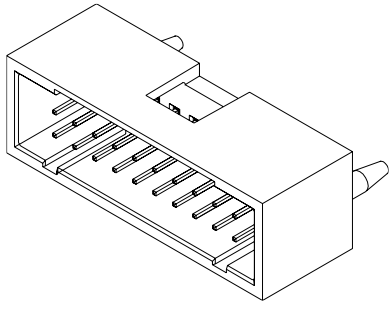
Physical

Housing: Black high-temperature thermal plastic, UL 94V-0
Contact: Copper Alloy
Plating: See Table

2.54mm (.100") Pitch C-Grid® Shrouded Header

70568

Dual Row, High-Temperature Through Hole with Pegs Vertical



Plating Option	Order No.	Lead-free
15µ" min. select Gold	15-47-76XX	Yes
30µ" min. select Gold	15-47-77XX	
150µ" Tin/Lead	15-47-75XX	
Replace XX with no. of circuits, 06-72 (even only)		

Features and Benefits

- Sizes 6 to 72 circuits
- Robotically insertable and compatible
- Board retention pegs hold header in place until they are permanently secured by soldering
- Latch window retains modular connector assemblies after mating
- Standoffs minimize flux retention
- Drawn .025" square wire provides 4-sided smooth surface for quality interface

Reference Information

Product Specification: PS-70567
Packaging: Tube
Mates With: C-Grid Receptacles, 70013B interim clip and 70450A crimp housing
Designed In: Inches

Electrical

Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 17.79N (4 lb)
Durability: Tin—25 cycles; Gold—50 cycles

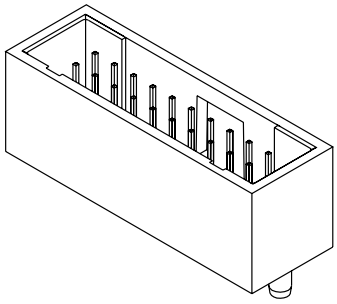
Physical

Housing: Black high-temperature thermal plastic, UL 94V-0
Contact: Copper Alloy
Plating: See Table

2.54 (.100") Pitch C-Grid® Shrouded Header

71349

Dual Row, SMT Vertical, With and Without Pegs



Features and Benefits

- Fully shrouded to protect pins during mating/unmating
- Polarizing slots guide front ribs of mating connector to prevent pin damage
- Latch window retains positive lock after mating
- Press-fit peg provides additional retention to PCB during soldering

Reference Information

Product Specification: PS-71349-001
Packaging Type: Tube or tape and reel
Mates with: C-Grid Receptacles, 70013 Version B interim clip and 70450A crimp housing
Designed in: Inches

Electrical

Electrical Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 17.79N (4 lb.)
Durability: Tin—25 cycles; Gold—50 cycles

Physical

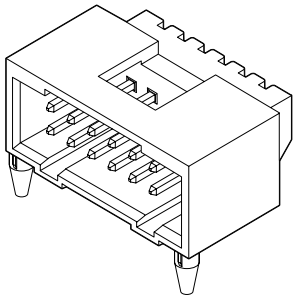
Physical Housing: Black high-temperature thermal plastic, UL 94V-0
Contact: Copper Alloy
Plating: See Table

Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
6	71349-X001	71349-X035	71349-X069	Yes
8	71349-X002	71349-X036	71349-X070	
10	71349-X003	71349-X037	71349-X071	
12	71349-X004	71349-X038	71349-X072	
14	71349-X005	71349-X039	71349-X073	
16	71349-X006	71349-X040	71349-X074	
18	71349-X007	71349-X041	71349-X075	
20	71349-X008	71349-X042	71349-X076	
22	71349-X009	71349-X043	71349-X077	
24	71349-X010	71349-X044	71349-X078	
26	71349-X011	71349-X045	71349-X079	
28	71349-X012	71349-X046	71349-X080	
30	71349-X013	71349-X047	71349-X081	
32	71349-X014	71349-X048	71349-X082	
34	71349-X015	71349-X049	71349-X083	
36	71349-X016	71349-X050	71349-X084	
38	71349-X017	71349-X051	71349-X085	
40	71349-X018	71349-X052	71349-X086	

Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
42	71349-X019	71349-X053	71349-X087	Yes
44	71349-X020	71349-X054	71349-X088	
46	71349-X021	71349-X055	71349-X089	
48	71349-X022	71349-X056	71349-X090	
50	71349-X023	71349-X057	71349-X091	
52	71349-X024	71349-X058	71349-X092	
54	71349-X025	71349-X059	71349-X093	
56	71349-X026	71349-X060	71349-X094	
58	71349-X027	71349-X061	71349-X095	
60	71349-X028	71349-X062	71349-X096	
62	71349-X029	71349-X063	71349-X097	
64	71349-X030	71349-X064	71349-X098	
66	71349-X031	71349-X065	71349-X099	
68	71349-X032	71349-X066	71349-X100	
70	71349-X033	71349-X067	71349-X101	
72	71349-X034	71349-X068	71349-X102	
Replace X with 1 for no peg version, 2 for peg version				

2.54mm (.100") Pitch C-Grid® Shrouded Header

70229
Dual Row, Right Angle With Retention Pegs



Features and Benefits
- Sizes 6 to 72 circuits
- Board retention pegs hold header in place until they are permanently secured by soldering
- Latch window retains positive lock on 70013 after mating

Reference Information
Product Specification: PS-70229-001
Packaging: Tube
UL File No.: E29179
Mates With: C-Grid Receptacles, 70013 version B interim clip and 70450A crimp housing
Designed In: Inches

Electrical
Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical
Pin Retention to Housing: 17.79N (4 lb)
Durability: Tin—25 cycles; Gold—50 cycles

Physical
Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table

Not For Use With C-Grid III™ Components

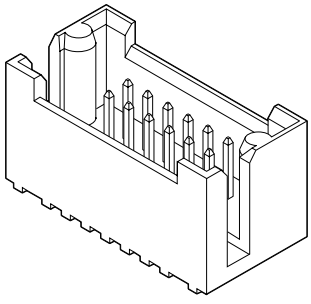
Circuits	Order No.		Lead-free
	150µ" Tin	15µ" Gold	
6	15-47-1061	15-47-6061	Yes
8	15-47-1081	15-47-6081	
10	15-47-1101	15-47-6101	
12	15-47-1121	15-47-6121	
14	15-47-1141	15-47-6141	
16	15-47-1161	15-47-6161	
18	15-47-1181	15-47-6181	
20	15-47-1201	15-47-6201	
22	15-47-1221	15-47-6221	
24	15-47-1241	15-47-6241	
26	15-47-1261	15-47-6261	
28	15-47-1281	15-47-6281	

Circuits	Order No.		Lead-free
	150µ" Tin	15µ" Gold	
30	15-47-1301	15-47-6301	Yes
32	15-47-1321	15-47-6321	
34	15-47-1341	15-47-6341	
36	15-47-1361	15-47-6361	
38	15-47-1381	15-47-6381	
40	15-47-1401	15-47-6401	
42	15-47-1421	15-47-6421	
44	15-47-1441	15-47-6441	
46	15-47-1461	15-47-6461	
48	15-47-1481	15-47-6481	
50	15-47-1501	15-47-6501	
52	15-47-1521	15-47-6521	

Circuits	Order No.		Lead-free
	150µ" Tin	15µ" Gold	
54	15-47-1541	15-47-6541	Yes
56	15-47-1561	15-47-6561	
58	15-47-1581	15-47-6581	
60	15-47-1601	15-47-6601	
62	15-47-1621	15-47-6621	
64	15-47-1641	15-47-6641	
66	15-47-1661	15-47-6661	
68	15-47-1681	15-47-6681	
70	15-47-1701	15-47-6701	
72	15-47-1721	15-47-6721	

2.54mm (.100") Pitch C-Grid® Shrouded Header

70204
Dual Row With PC Slot and Guide Ears



Features and Benefits
- With PC slot and guide ears for blind-mate applications
- Polarization slots and guide ears assure error free mating
- Drawn .025" square wire provides 4-sided smooth surface for quality interface

Reference Information
Product Specification: PS-70204
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 71973 with flange
Designed In: Inches

Electrical
Voltage: 250V
Current: 3.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 17.79N (4 lb)
Durability: Tin—25 cycles; Gold—50 cycles

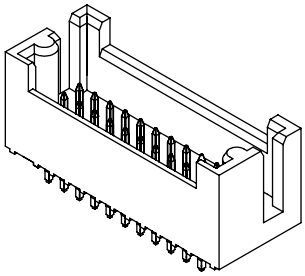
Physical
Housing: Black nylon, UL 94V-0
Contact: Copper Alloy
Plating: See Table

Not For Use With C-Grid III™ Components

Plating Options	Order No.	Lead-free
150µ" Tin	25-02-20XX	Yes
15µ" Gold	25-02-60XX	
30µ" Gold	25-02-10XX	
Replace XX with no. of circuits, 08-72 (even only) Example: 20 circuit = 25-02-6020		

2.54mm (.100") Pitch C-Grid® Shrouded Header

75100
Dual Row
With PC Slot and Guide Ears, CPI



Features and Benefits
- Size 4 to 72 circuits
- With PC slot and guide ears for blind-mate applications
- Polarization slots and guide ears assure error-free mating
- Eye-of-the-needle compliant pin for press-fit applications

Reference Information
Product Specification: PS-75100-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates with: 71973 with flange
Designed In: Inches

Electrical
Voltage: 250V
Current: 3.0A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical
Durability: Tin—25 cycles; Gold—50 cycles

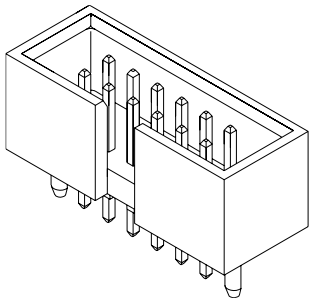
Physical
Housing: Black nylon, UL 94V-0
Contact: Copper Alloy
Plating: See table

Circuit Size	Tin	15µ" Gold	30µ" Gold	Lead-free
4	75100-0129	75100-0065	75100-0001	
6	75100-0130	75100-0066	75100-0002	
8	75100-0131	75100-0067	75100-0003	
10	75100-0132	75100-0068	75100-0004	
12	75100-0133	75100-0069	75100-0005	
14	75100-0134	75100-0070	75100-0006	
16	75100-0135	75100-0071	75100-0007	
18	75100-0136	75100-0072	75100-0008	
20	75100-0137	75100-0073	75100-0009	
22	75100-0138	75100-0074	75100-0010	
24	75100-0139	75100-0075	75100-0011	
26	75100-0140	75100-0076	75100-0012	
28	75100-0141	75100-0077	75100-0013	
30	75100-0142	75100-0078	75100-0014	
32	75100-0143	75100-0079	75100-0015	
34	75100-0144	75100-0080	75100-0016	
36	75100-0145	75100-0081	75100-0017	
38	75100-0146	75100-0082	75100-0018	Yes
40	75100-0147	75100-0083	75100-0019	
42	75100-0148	75100-0084	75100-0020	
44	75100-0149	75100-0085	75100-0021	
46	75100-0150	75100-0086	75100-0022	
48	75100-0151	75100-0087	75100-0023	
50	75100-0152	75100-0088	75100-0024	
52	75100-0153	75100-0089	75100-0025	
54	75100-0154	75100-0090	75100-0026	
56	75100-0155	75100-0091	75100-0027	
58	75100-0156	75100-0092	75100-0028	
60	75100-0157	75100-0093	75100-0029	
62	75100-0158	75100-0094	75100-0030	
64	75100-0159	75100-0095	75100-0031	
66	75100-0160	75100-0096	75100-0032	
68	75100-0161	75100-0097	75100-0033	
70	75100-0162	75100-0098	75100-0034	
72	75100-0163	75100-0099	75100-0035	

2.54mm (.100") Pitch C-Grid® Shrouded Header

87834

Dual Row, Low Profile, Vertical



Features and Benefits

- Sizes 4 to 72 circuits
- Low profile
- Polarized slot
- Fully shrouded to protect pins during mating
- In-line or alternate polarization pegs options

Reference Information

Product Specification: PS-70246-100
Mates With: .050" pitch ribbon cable connectors
Designed In: Inches

Electrical

Voltage: 250V AC max.
Current: 2.5A
Dielectric Withstanding Voltage: 600V AC/1 min.
Insulation Resistance: 12,000 Megohms min.

Mechanical

Contact Retention: 0.907kg (2 lb) min.
Pin Push-Out Force: 0.907kg (2 lb) min.

Physical

Housing: Beige glass-filled 4/6 nylon, UL 94V-0
Contact: Copper Alloy
Plating: Gold on contacts and Tin on solder tails

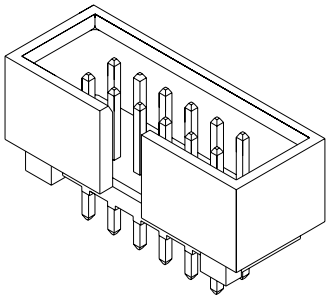
Circuits	Order No.	Lead-free
4	87834-0411	Yes
6	87834-0611	
8	87834-0811	
10	87834-1011	
12	87834-1211	
14	87834-1411	
16	87834-1611	
18	87834-1811	
20	87834-2011	
24	87834-2411	

Circuits	Order No.	Lead-free
26	87834-2611	Yes
30	87834-3011	
34	87834-3411	
40	87834-4011	
44	87834-4411	
50	87834-5011	
56	87834-5611	
60	87834-6011	
64	87834-6411	
72	87834-7211	

2.54mm (.100") Pitch C-Grid® Shrouded Header

70246

Dual Row, Low Profile, Vertical



Features and Benefits

- Sizes 8 to 72 circuits
- Polarized slot
- Low profile
- High temperature material version available, contact Molex

Reference Information

Product Specification: PS-70246-100
UL File No.: E29179 (H)
CSA File No.: LR19980A
Mates With: .050" pitch ribbon cable connectors
Designed In: Inches

Electrical

Voltage: 250V
Current: 2.5A DC min.
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 17.79N (4 lb)
Durability: 50 cycles Gold

Physical

Housing: Black PBT, UL 94V-0
Contact: Phosphor Bronze
Plating: See Table

Not For Use With C-Grid III™ Components

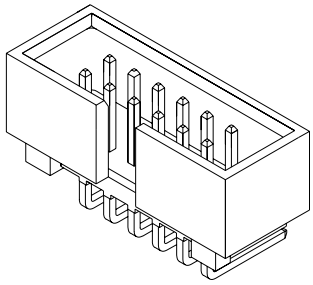
Circuits	Order No.		Lead-free
	15µ" Gold	30µ" Gold	
8	70246-0801	70246-0802	Yes
10	70246-1001	70246-1002	
12	70246-1201	70246-1202	
14	70246-1401	70246-1402	
16	70246-1601	70246-1602	
20	70246-2001	70246-2002	
24	70246-2401	70246-2402	
26	70246-2601	70246-2602	

Circuits	Order No.		Lead-free
	15µ" Gold	30µ" Gold	
30	70246-3001	70246-3002	Yes
34	70246-3401	70246-3402	
40	70246-4001	70246-4002	
44	70246-4401	70246-4402	
50	70246-5001	70246-5002	
56	70246-5601	70246-5602	
60	70246-6001	70246-6002	
64	70246-6401	70246-6402	
72	70246-7201	70246-7202	

2.54mm (.100") Pitch C-Grid® Shrouded Header

70247

Dual Row, Low Profile Right Angle



Features and Benefits

- Sizes 8 to 64 circuits
- Polarized slot
- Low profile
- High temperature material version available, contact Molex

Reference Information

Product Specification: PS-70246-100
UL File No.: E29179 (H)
CSA File No.: LR19980A
Mates With: .050" pitch ribbon cable connectors
Designed In: Inches

Electrical

Voltage: 250V
Current: 2.5A DC min.
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 600V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 1.8kg (4 lb)
Durability: 50 cycles Gold

Physical

Housing: Black glass-filled PBT, UL 94V-0
Contact: Phosphor Bronze
Plating: See Table

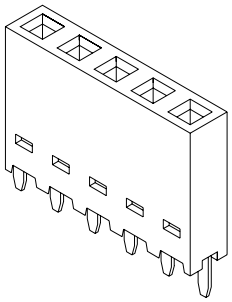
Not For Use With C-Grid III™ Components

Circuits	Order No.		Lead-fee
	15µ" Gold	30µ" Gold	
8	70247-0851	70247-0852	Yes
10	70247-1051	70247-1052	
12	70247-1251	70247-1252	
14	70247-1451	70247-1452	
16	70247-1651	70247-1652	
20	70247-2051	70247-2052	
24	70247-2451	70247-2452	
26	70247-2651	70247-2652	
30	70247-3051	70247-3052	

Circuits	Order No.		Lead-fee
	15µ" Gold	30µ" Gold	
34	70247-3451	70247-3452	Yes
40	70247-4051	70247-4052	
44	70247-4451	70247-4452	
48	70247-4851	70247-4852	
50	70247-5051	70247-5052	
56	70247-5651	70247-5652	
60	70247-6051	70247-6052	
64	70247-6451	70247-6452	
72	70247-7251	70247-7252	

2.54mm (.100") Pitch C-Grid® PC Board Connectors

90147
Single Row Vertical



Features and Benefits
- Sizes 2 to 32 circuits
- Contact and plating orientation according to DIN 41651
- Stackable in 2 directions
- Meets HE 13/14 specification
- Suitable for single row headers

Reference Information
Product Specification: PS-99020-0001
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 0.64mm (.025") square pins
Use With: 1.57mm (.062") thick PC boards
Designed In: Inches

Electrical
Voltage: 350V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 15N min.
Mating Force: 1N Gold max. and 3N Tin max.
Unmating Force: 0.2N Gold min. and 0.2N Tin min.
Normal Force: 1N

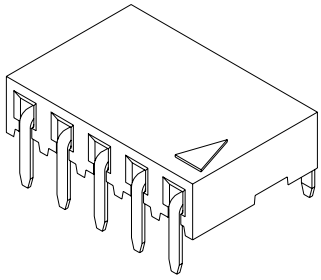
Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table
Recommended Mating Pin Length:
5.65mm (.222") min. to 7.00mm (.275") max.

Circuits	Order No.				Lead-free
	Straight Tail				
	Plating A	Plating E	Plating F	Plating N	
2	90147-1102	90147-1202	90147-1302	90147-1402	Yes
3	90147-1103	90147-1203	90147-1303	90147-1403	
4	90147-1104	90147-1204	90147-1304	90147-1404	
5	90147-1105	90147-1205	90147-1305	90147-1405	
6	90147-1106	90147-1206	90147-1306	90147-1406	
7	90147-1107	90147-1207	90147-1307	90147-1407	
8	90147-1108	90147-1208	90147-1308	90147-1408	
9	90147-1109	90147-1209	90147-1309	90147-1409	
10	90147-1110	90147-1210	90147-1310	90147-1410	
11	90147-1111	90147-1211	90147-1311	90147-1411	
12	90147-1112	90147-1212	90147-1312	90147-1412	
14	90147-1114	90147-1214	90147-1314	90147-1414	
18	90147-1118	90147-1218	90147-1318	90147-1418	
25	90147-1125	90147-1225	90147-1325	90147-1425	
30	90147-1130	90147-1230	90147-1330	90147-1430	
32	90147-1132	90147-1232	90147-1332	90147-1432	

For other available circuit sizes contact Molex
Plating A: 1.00µm (39µ") min. Hot Tin dip
Plating E: 0.38mm (15µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel
Plating F: 0.76mm (30µ") to 1.00mm (40µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel
Plating N: 0.76mm (30µ") to 2.6mm (100µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel

2.54mm (.100") Pitch C-Grid® PC Board Connectors

90148
Single Row Horizontal



Features and Benefits
- Sizes 2 to 32 circuits
- Contact and plating orientation according to DIN 41651
- Stackable end-to-end
- Meets HE 13/14 specification
- Suitable for single row headers

Reference Information
Product Specification: PS-99020-0001
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 0.64 (.025") square pins
Use With: 1.57mm (.062") thick PC boards
Designed In: Inches

Electrical
Voltage: 350V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 15N min.
Mating Force: 1N Gold max. and 3N Tin max.
Unmating Force: 0.2N Gold min. and 0.2N Tin min.
Normal Force: 1N

Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table
Recommended Mating Pin Length:
5.65mm (.222") min. to 7.00mm (.275") max.

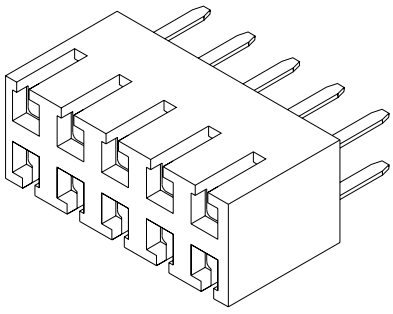
Circuits	Order No. Straight Tail			Lead-free
	Plating A	Plating E	Plating F	
2	90148-1102	90148-1202	90148-1302	Yes
4	90148-1104	90148-1204	90148-1304	
6	90148-1106	90148-1206	90148-1306	
8	90148-1108	90148-1208	90148-1308	
10	90148-1110	90148-1210	90148-1310	

Circuits	Order No. Straight Tail			Lead-free
	Plating A	Plating E	Plating F	
12	90148-1112	90148-1212	90148-1312	Yes
14	90148-1114	90148-1214	90148-1314	
18	90148-1118	90148-1218	90148-1318	
30	90148-1130	90148-1230	90148-1330	
32	90148-1132	90148-1232	90148-1332	

For other available circuit sizes contact Molex
Plating A: 1.00mm (39µ") min. Hot Tin dip
Plating E: 0.38mm (15µ") selective Gold over Nickel and 4mm (160µ") Tin over Nickel
Plating F: 0.76mm (30µ") selective Gold over Nickel and 4mm (160µ") Tin over Nickel

2.54mm (.100") Pitch C-Grid® Receptacle

71850
High Profile, Dual Row High-Temperature, Vertical Through Hole



Features and Benefits
- Sizes 4 to 80 circuits
- Available with or without retention pegs
- High profile: .340" high
- Designed for parallel and perpendicular board stacking
- Stackable end-to-end on .100" grid

Reference Information
Product Specification: PS-70181
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: C-Grid breakaway and shrouded headers
Designed In: Inches

Electrical
Voltage: 250V
Current: 2.5A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Insertion Force: 182g (0.4 lb)
Insertion Force to PCB: 3.6kg (8 lb) per peg
Durability: Tin—25 cycles; Gold—50 cycles

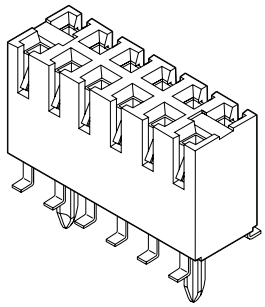
Physical
Housing: Black high-temperature thermal plastic, UL 94V-0
Contact: Copper Alloy
Plating: See Table

Plating Option	Order No.	Lead-free
150µ" Tin	15-44-68XX	Yes
15µ" Gold	15-44-58XX	
30µ" Gold	15-44-51XX	
Replace XX with no. of circuits, 04-80 (even only) Example: 20 circuit = 15-44-5820		

2.54mm (.100") Pitch C-Grid® PCB Connector

71395

High Profile, Dual Row Vertical, SMT



Features and Benefits

- Available with or without retention pegs
- Gull wing surface mount tails
- High profile: .340" high
- Designed for parallel and perpendicular board stacking
- Stackable end-to-end on .100" grid

Reference Information

Product Specification: PS-71395
Packaging: Tray
UL File No.: E29179
Mates With: C-Grid breakaway and shrouded headers
Designed In: Inches

Electrical

Voltage: 250V
Current: 2.5A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Insertion Force to PCB: 3.6kg (8 lb) per peg
Durability: Tin—25 cycles; Gold—50 cycles

Physical

Housing: Black high-temperature thermal plastic, UL 94V-0
Contact: Copper Alloy
Plating: See Table
Screened Paste Thickness: .010 to .015"

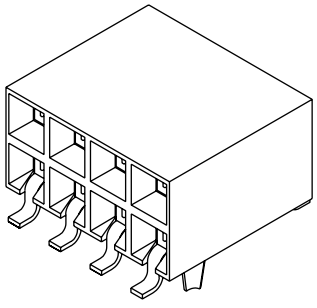
Not For Use With Molex C-Grid III™ Components

Plating Option	Order No.		Lead-free
	With PCB Retention Pegs	Without Pegs	
150µ" min. Tin	15-45-34XX	15-45-32XX	Yes
15µ" Gold	15-45-35XX	15-45-31XX	
30µ" min. Gold	15-45-36XX	15-45-33XX	
Replace XX with no. of circuits, 08-80 (even only) Example: 20 circuit = 15-45-3520			

2.54mm (.100") Pitch C-Grid® Receptacle

71979

Dual Row, Right Angle SMT



Features and Benefits

- Designed for perpendicular board stacking
- Dual beam box contact
- Staggered mating depth to lower initial insertion force
- Positive pin stop to prevent shorting between rows
- Available without pegs

Reference Information

Product Specification: PS-71973
Packaging: Tube
UL File No.: E29179
Mates With: C-Grid breakaway headers
Designed In: Inches

Electrical

Voltage: 250V
Current: 2.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min

Mechanical

Mating Force: 1.33N (0.3 lb)
Durability: 50 cycles

Physical

Housing: Black high-temperature thermal plastic, UL 94V-0
Contact: Copper Alloy
Plating: See Table

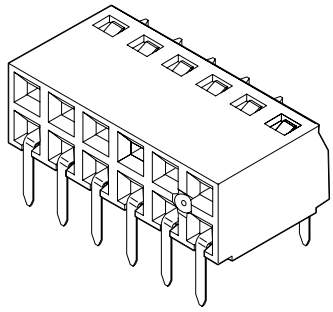
Not For Use With Molex C-Grid III™ Components

Plating Options	Order No.	Lead-free
15µ" Gold	71979-02XX	Yes
30µ" Gold	71979-03XX	
50µ" Gold	71979-04XX	
Replace XX with no. of circuits per row, 08-80 Example: 20 circuit = 71979-0220		

2.54mm (.100") Pitch C-Grid® PCB Connector

71973

Dual Row, Right Angle Early Entry Receptacle Flangeless



Features and Benefits

- Early entry contact provides .040" additional gold wipe on male post
- Designed for perpendicular board stacking
- Stackable end-to-end
- Flangeless with lower row pin stop offered, contact Molex
- Closed bottom insulator to prevent solder wicking

Reference Information

Product Specification: PS-71973
Packaging: Tube
UL File No.: E29179
Mates With: C-Grid breakaway headers
Designed In: Inches

Electrical

Voltage: 250V
Current: 2.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 1.33N (0.3 lb)
Durability: 50 cycles

Physical

Housing: Black high-temperature thermal plastic, UL 94V-0
Contact: Copper Alloy
Plating: See Table

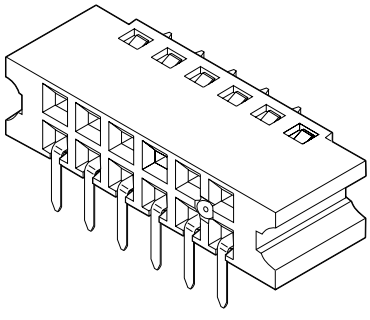
Not For Use With Molex C-Grid III™ Components

Plating Options	Order No.	Lead-free
15µ" Gold	71973-02XX	Yes
30µ" Gold	71973-03XX	
50µ" Gold	71973-04XX	
Replace XX with no. of circuits per row, 04-40 Example: 20 circuit = 71973-0220		

2.54mm (.100") Pitch C-Grid® PCB Connector

71973

Dual Row, Right Angle Early Entry Receptacle With Flange



Features and Benefits

- Early entry contact provides .040" additional gold wipe on male post
- Designed for perpendicular board stacking
- Lower row pin stop offered, contact Molex
- Closed bottom insulator to prevent solder wicking
- Flange slides over guide ears on header for blind mate applications

Reference Information

Product Specification: PS-71973
Packaging: Tube
UL File No.: E29179
Mates With: 70204
Designed In: Inches

Electrical

Voltage: 250V
Current: 2.0A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 1.33N (0.3 lb)
Durability: 50 cycles

Physical

Housing: Black high-temperature thermal plastic, UL 94V-0
Contact: Copper Alloy
Plating: See Table

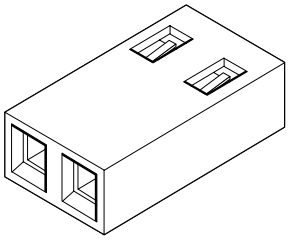
Not For Use With Molex C-Grid III™ Components

Plating Options	Order No.	Lead-free
15µ" Gold	71973-10XX	Yes
30µ" Gold	71973-11XX	
50µ" Gold	71973-12XX	
Replace XX with no. of circuits per row, 04-36 Example: 20 circuit = 71973-1220		

2.54mm (.100") Pitch C-Grid® Shunt/Jumper

7859

2-Circuit



Features and Benefits

- Easily applied without soldering and reliable without accidental disconnects
- Low cost alternative to DIP switches
- Increases current flow and decreases resistance vs DIP switches
- Dual beam terminals: 2 points of contact per pin
- Open and closed top versions
- Stackable end-to-end and side-to-side

Reference Information

Product Specification: PS-7859
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: C-Grid breakaway headers
Designed In: Inches

Electrical

Voltage: 250V
Current: 5.0A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 100K Megohms min.

Mechanical

Contact Retention to Housing: 26.69N (4 lb)
Mating Force: 4.448N (6 lb)
Unmating Force: 0.98N (1 lb)
Durability: Tin—25 cycles; Gold—200 cycles

Physical

Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table

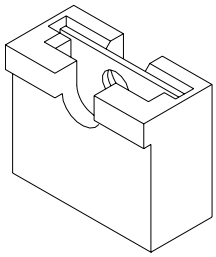
Not For Use With Molex C-Grid III™ Components

Open Top		
Order No.	Plating	Lead-free
15-38-1024	150µ" Tin	Yes
15-29-1024	15µ" Gold	
15-29-1026	30µ" Gold	

Closed Top		
Order No.	Plating	Lead-free
15-38-1026	150µ" Tin	Yes
15-29-1025	15µ" Gold	
15-29-1027	30µ" Gold	

2.54mm (.100") Pitch C-Grid® Micro Shunt

90059
Low Profile



Features and Benefits
- Fully stackable
- Center probe hole—for continuity testing and easy pull-off
- Color-coded housings for plating and identification
- Delivered on break-off carrier strips for easy handling (10 per strip) or loose
- Recommended to be applied after mating header is soldered

Reference Information
Product Specification: PS-90059
Packaging: Strips or Bag
UL File No.: E29179
CSA File No.: LR19980
Designed In: Inches

Electrical
Voltage: 350V
Current: 3.0A Gold; 1.5A Tin
Contact Resistance: Gold—12 milliohms max.;
Tin—15 milliohms max.
Dielectric Withstanding Voltage: 2000V
Insulation Resistance: 2000 Megohms max.

Mechanical
Mating Force: 7N max.
Unmating Force: 0.3N Gold; 0.5N Tin min.
Durability: 50 cycles Gold and 20 cycles Tin

Physical
Housing: Glass-filled polyester, UL 94V-0
Contact: Phosphor Bronze
Plating: See Table
Height: 4.95mm (.195") max.

Order No.	Plating No.	Color	Packaging	Lead-free
90059-0009*	1	White	Strip	Yes
90059-0007*	2	Black		
90059-0013	3			
90059-0014	4	White		
90059-0012	5			
90059-1009	1	White	Bag	
90059-1007	2	Black		

* Preferred Version In Europe/Americas
Plating No. 1: 0.38µm (15µ") Gold in contact area over 0.76µm (30µ") Nickel with Gold flash overall
Plating No. 2: 5.0µm (200µ") min. Tin over 0.2µm (8µ") min. Copper
Plating No. 3: 0.9µm (35µ") min. Pretinned
Plating No. 4: 0.1µm (4µ") min. Gold over 1.0µm (40µ") min. Nickel overall
Plating No. 5: 0.76µm (30µ") Gold over 1.27*µm (50µ") Nickel in contact area with 0.2mm (8µ") min. Nickel overall

2.54mm (.100") Pitch C-Grid III™

The C-Grid III 2.54mm (.100") pitch post and receptacle interconnection system offers complete design flexibility and modular components that provide the widest range of electronic packaging alternatives. C-Grid III is a highly-versatile 2.54mm interconnection system offering unique design features:

Surface Treatment

C-Grid III is available in 3 standard platings. Two performance levels of selective Gold and one of Tin, all over a Nickel-plated substrate, guarantee the optimum ration of quality versus cost for your application.

Flexibility

C-Grid III has been developed to meet the latest industry requirements. Two different termination techniques, solder tail, crimp and insulation displacement, are combined in a complete interconnection system which is based on north/south contact orientation. Headers will accept both discrete wire and ribbon cable connectors.

Advantage by Design

C-Grid III box contact design employs the same mating concept with all termination techniques. A uniform locking system on all contacts allows full interchangeability inside different housing styles.

Interchangeability

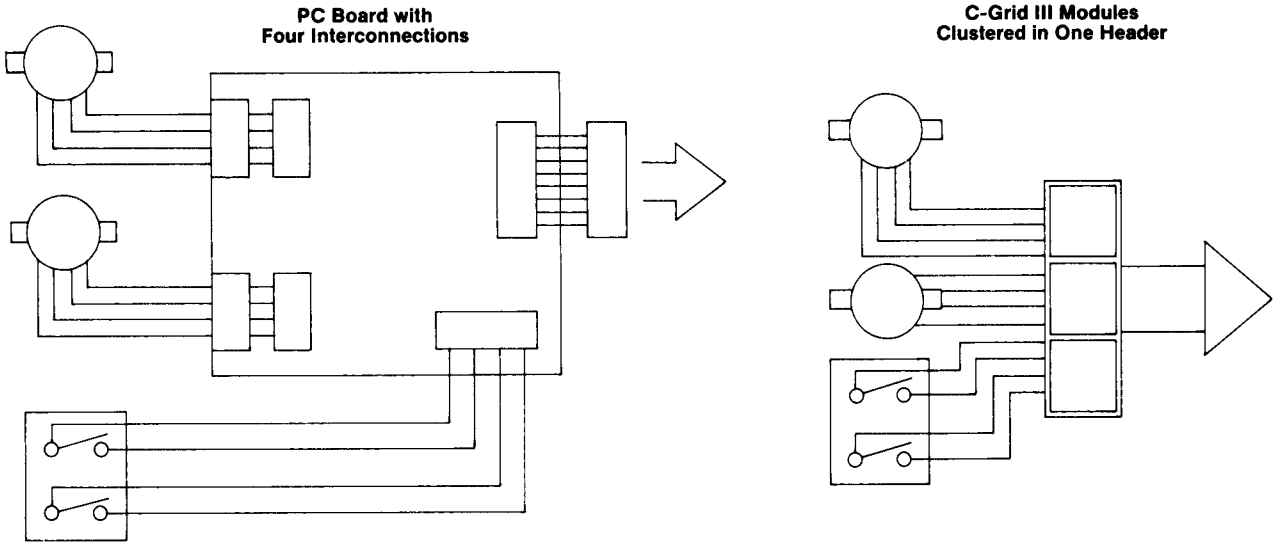
C-Grid III is fully compatible with the industry standard DIN 41651 as well as the French norm HE-13/14. Moreover, it is fully intermateable/interchangeable with Molex's QF-50 product range.

Lower Applied Cost

C-Grid III system incorporates a wide range of advanced application tooling, from manually-operated hand tools to semi-automatic harness making machines.

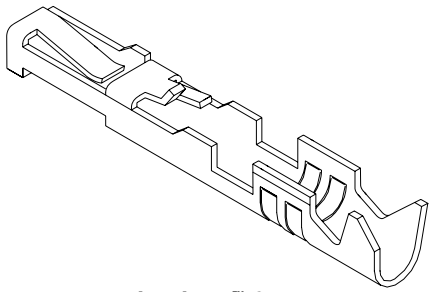
C-Grid III offers the widest range of interconnection packaging alternatives in the electronic market today.

Not For Use With Molex SL™ Components



2.54mm (.100") Pitch C-Grid III™ Terminal

90119
Female Crimp



Features and Benefits
- Fully enclosed contact box
- Contact and plating orientation according to DIN 41651
- North/south contact orientation avoids overstress

Reference Information
Product Specification: PS-99020-0001
Packaging: Chain or bag
Mates With: 0.64mm (.025") square pins
Use With: 90123, 90142, 90143, 90156 and 90160
Designed In: Inches

Electrical
Voltage: 350V
Current: 3.0A
Contact Resistance: 20 milliohms max.

Mechanical
Contact Retention to Housing: 15N (1.5kgf)
Normal Force: 1N

Physical
Contact: Copper Alloy
Plating: See Table
Wire Range: 22 to 24 and 26 to 28 AWG
Wire Insulation Diameter: 1.70mm (.067") max.

Plating A: 1.00µm (39µ") min. Hot Tin dip
Plating E: 0.38µm (15µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel
Plating F: 0.76µm (30µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel

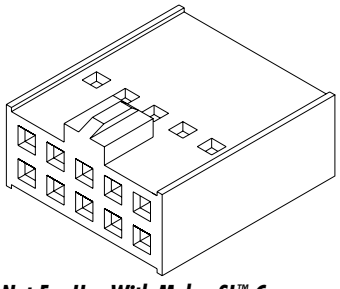
Not For Use With Molex SL™ Components

Order No.	Plating Option	Packaging	Wire Size (AWG)	Insulation Diameter Range	Lead-free
90119-0109	A	Chain—Left Hand Feed	22-24	1.02/1.47 (.040/.058)	Yes
90119-0110	E				
90119-0111	F				
90119-0120	A		26-28	0.76/1.22 (.030/.048)	
90119-0121	E				
90119-0122	F				
90119-2109	A	Bag	22-24	1.02/1.47 (.040/.058)	
90119-2110	E				
90119-2111	F				
90119-2120	A		26-28	0.76/1.22 (.030/.048)	
90119-2121	E				
90119-2122	F				

For other available versions contact Molex

2.54mm (.100") Pitch C-Grid III™ Crimp Connector Housing

90142
Dual Row



Features and Benefits
- Sizes 6 to 64 circuits
- Polarized
- Friction lock

Reference Information
Product Specification: PS-99020-0001
Packaging: Bag
Mates With: 90122, 90130 and 90131
Use With: 90119
Designed In: Inches

Electrical
Voltage: 350V
Current: 3.0A max.
Contact Resistance: 20 milliohms max.
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 15N min.
Normal Force: 1N

Physical
Housing: Black polyphenylene oxide, UL 94V-1

Delivered on a carrier with 20 pieces per strip.

Actual Size 

Universal Polarizing Pin
40713-1
Order No. 15-04-0292

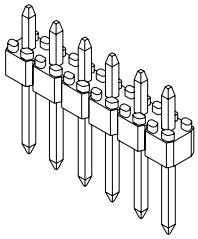
Not For Use With Molex SL™ Components

Circuits	Order No.	Circuits	Order No.	Circuits	Order No.
6	90142-0006	20	90142-0020	38	90142-0038
8	90142-0008	22	90142-0022	40	90142-0040
10	90142-0010	24	90142-0024	44	90142-0044
12	90142-0012	26	90142-0026	50	90142-0050
14	90142-0014	30	90142-0030	54	90142-0054
16	90142-0016	34	90142-0034	60	90142-0060
18	90142-0018	36	90142-0036	64	90142-0064

For other available circuit sizes contact Molex

2.54mm (.100") Pitch C-Grid III™ Header

90120
Single Row Vertical



Features and Benefits
- Sizes 2 to 40 circuits
- Easy breakaway to smaller sizes
- Contact and plating orientation according to DIN 41651
- North/south contact orientation avoids overstress
- High pin retention
- High mechanical stability after soldering

Reference Information
Product Specification: PS-99020-0001
Packaging: Bag
Mates With: C-Grid III Housing and Connectors
Designed In: Inches

Electrical
Voltage: 350V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Insulation Resistance: 5000 Megohms min.

Mechanical
Contact Retention to Housing: 20N (2.0kgf) min.
Mating Force: 1N max. Gold and 3N max. Tin
Unmating Force: 0.2N min. Gold and 0.2N min. Tin
Normal Force: 1N

Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Copper Alloy, 0.64mm (.025") square pins
Plating: See Table

Plating A: 4µm (160µ") Tin over Nickel
Plating E: 0.38µm (15µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel
Plating F: 0.76µm (30µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel

Not For Use With Molex SL™ Components

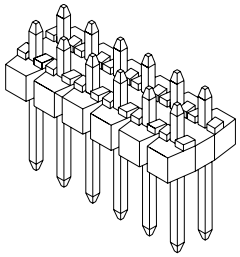
Circuits	Order No.			Lead-free
	Plating A	Plating E	Plating F	
3	90120-0123	90120-0763	90120-0923	
4	90120-0124	90120-0764	90120-0924	
5	90120-0125	90120-0765	90120-0925	
6	90120-0126	90120-0766	90120-0926	
7	90120-0127	90120-0767	90120-0927	
8	90120-0128	90120-0768	90120-0928	
9	90120-0129	90120-0769	90120-0929	
10	90120-0130	90120-0770	90120-0930	
11	90120-0131	90120-0771	90120-0931	
12	90120-0132	90120-0772	90120-0932	Yes
13	90120-0133	90120-0773	90120-0933	
14	90120-0134	90120-0774	90120-0934	
15	90120-0135	90120-0775	90120-0935	
16	90120-0136	90120-0776	90120-0936	
17	90120-0137	90120-0777	90120-0937	
18	90120-0138	90120-0778	90120-0938	
19	90120-0139	90120-0779	90120-0939	
20	90120-0140	90120-0780	90120-0940	
21	90120-0141	90120-0781	90120-0941	

Circuits	Order No.			Lead-free
	Plating A	Plating E	Plating F	
22	90120-0142	90120-0782	90120-0942	
23	90120-0143	90120-0783	90120-0943	
24	90120-0144	90120-0784	90120-0944	
25	90120-0145	90120-0785	90120-0945	
26	90120-0146	90120-0786	90120-0946	
27	90120-0147	90120-0787	90120-0947	
28	90120-0148	90120-0788	90120-0948	
29	90120-0149	90120-0789	90120-0949	
30	90120-0150	90120-0790	90120-0950	
31	90120-0151	90120-0791	90120-0951	Yes
32	90120-0152	90120-0792	90120-0952	
33	90120-0153	90120-0793	90120-0953	
34	90120-0154	90120-0794	90120-0954	
35	90120-0155	90120-0795	90120-0955	
36	90120-0156	90120-0796	90120-0956	
37	90120-0157	90120-0797	90120-0957	
38	90120-0158	90120-0798	90120-0958	
39	90120-0159	90120-0799	90120-0959	
40	90120-0160	90120-0800	90120-0960	

For other available versions contact Molex

2.54mm (.100") Pitch C-Grid III™ Header

90131
Dual Row Vertical



Features and Benefits
- Sizes 4 to 80 circuits
- Easy breakaway to smaller sizes
- Stackable side-to-side
- Contact and plating orientation according to DIN 41651
- North/south contact orientation avoids overstress
- High pin retention and high mechanical stability after soldering

Reference Information
Product Specification: PS-99020-0001
Packaging: Bag
Mates With: C-Grid III Housing and Connectors
Designed In: Inches

Electrical
Voltage: 350V max.
Current: 3.0A
Contact Resistance: 20 milliohms max.
Insulation Resistance: 5000 Megohms min.

Mechanical
Contact Retention to Housing: 20N (2.0kgf) min.
Mating Force: 1N max. Gold and 3N max. Tin
Unmating Force: 0.2N min. Gold and 0.2N min. Tin
Normal Force: 1N

Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Copper Alloy, 0.64mm (.025") square pins
Plating: See Table

Plating A: 4µm (160µ") Tin over Nickel
Plating E: 0.38µm (15µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel
Plating F: 0.76µm (30µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel

Not For Use With Molex SL™ Components

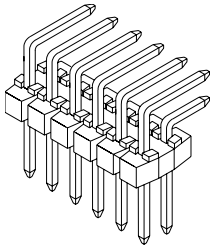
Circuits	Order No.			Lead-free
	Plating A	Plating E	Plating F	
4	90131-0122	90131-0762	90131-0922	
6	90131-0123	90131-0763	90131-0923	
8	90131-0124	90131-0764	90131-0924	
10	90131-0125	90131-0765	90131-0925	
12	90131-0126	90131-0766	90131-0926	
14	90131-0127	90131-0767	90131-0927	
16	90131-0128	90131-0768	90131-0928	
18	90131-0129	90131-0769	90131-0929	
20	90131-0130	90131-0770	90131-0930	
22	90131-0131	90131-0771	90131-0931	Yes
24	90131-0132	90131-0772	90131-0932	
26	90131-0133	90131-0773	90131-0933	
28	90131-0134	90131-0774	90131-0934	
30	90131-0135	90131-0775	90131-0935	
32	90131-0136	90131-0776	90131-0936	
34	90131-0137	90131-0777	90131-0937	
36	90131-0138	90131-0778	90131-0938	
38	90131-0139	90131-0779	90131-0939	
40	90131-0140	90131-0780	90131-0940	

Circuits	Order No.			Lead-free
	Plating A	Plating E	Plating F	
42	90131-0141	90131-0781	90131-0941	
44	90131-0142	90131-0782	90131-0942	
46	90131-0143	90131-0783	90131-0943	
48	90131-0144	90131-0784	90131-0944	
50	90131-0145	90131-0785	90131-0945	
52	90131-0146	90131-0786	90131-0946	
54	90131-0147	90131-0787	90131-0947	
56	90131-0148	90131-0788	90131-0948	
58	90131-0149	90131-0789	90131-0949	
60	90131-0150	90131-0790	90131-0950	Yes
62	90131-0151	90131-0791	90131-0951	
64	90131-0152	90131-0792	90131-0952	
66	90131-0153	90131-0793	90131-0953	
68	90131-0154	90131-0794	90131-0954	
70	90131-0155	90131-0795	90131-0955	
72	90131-0156	90131-0796	90131-0956	
74	90131-0157	90131-0797	90131-0957	
76	90131-0158	90131-0798	90131-0958	
78	90131-0159	90131-0799	90131-0959	

For other available versions contact Molex

2.54mm (.100") Pitch C-Grid III™ Header

90122
Dual Row Right Angle



Features and Benefits
- Sizes 4 to 80 circuits
- Easy breakaway to smaller sizes
- Contact and plating orientation according to DIN 41651
- North/south contact orientation avoids overstress
- High pin retention
- High mechanical stability after soldering

Reference Information
Product Specification: PS-99020-0001
Packaging: Bag
Mates With: C-Grid III Housing and Connectors
Designed In: Inches

Electrical
Voltage: 350V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Insulation Resistance: 5000 Megohms min.

Mechanical
Contact Retention to Housing: 20N (2.0kgf) min.
Mating Force: 1N max. Gold and 3N max. Tin
Unmating Force: 0.2N min. Gold and 0.2N min. Tin
Normal Force: 1N

Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Copper Alloy, 0.64mm (.025") square pins
Plating: See Table

Plating A: 4µm (160µ") Tin over Nickel
Plating E: 0.38µm (15µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel
Plating F: 0.76µm (30µ") selective Gold over Nickel and 4µm (160µ') Tin over Nickel

Not For Use With Molex SL™ Components

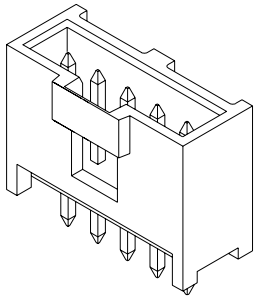
Circuits	Order No.			Lead-free
	Plating A	Plating E	Plating F	
4	90122-0122	90122-0762	90122-0922	Yes
6	90122-0123	90122-0763	90122-0923	
8	90122-0124	90122-0764	90122-0924	
10	90122-0125	90122-0765	90122-0925	
12	90122-0126	90122-0766	90122-0926	
14	90122-0127	90122-0767	90122-0927	
16	90122-0128	90122-0768	90122-0928	
18	90122-0129	90122-0769	90122-0929	
20	90122-0130	90122-0770	90122-0930	
22	90122-0131	90122-0771	90122-0931	
24	90122-0132	90122-0772	90122-0932	
26	90122-0133	90122-0773	90122-0933	
28	90122-0134	90122-0774	90122-0934	
30	90122-0135	90122-0775	90122-0935	
32	90122-0136	90122-0776	90122-0936	
34	90122-0137	90122-0777	90122-0937	
36	90122-0138	90122-0778	90122-0938	
38	90122-0139	90122-0779	90122-0939	
40	90122-0140	90122-0780	90122-0940	
42	90122-0141	90122-0781	90122-0941	

Circuits	Order No.			Lead-free
	Plating A	Plating E	Plating F	
44	90122-0142	90122-0782	90122-0942	Yes
46	90122-0143	90122-0783	90122-0943	
48	90122-0144	90122-0784	90122-0944	
50	90122-0145	90122-0785	90122-0945	
52	90122-0146	90122-0786	90122-0946	
54	90122-0147	90122-0787	90122-0947	
56	90122-0148	90122-0788	90122-0948	
58	90122-0149	90122-0789	90122-0949	
60	90122-0150	90122-0790	90122-0950	
62	90122-0151	90122-0791	90122-0951	
64	90122-0152	90122-0792	90122-0952	
66	90122-0153	90122-0793	90122-0953	
68	90122-0154	90122-0794	90122-0954	
70	90122-0155	90122-0795	90122-0955	
72	90122-0156	90122-0796	90122-0956	
74	90122-0157	90122-0797	90122-0957	
76	90122-0158	90122-0798	90122-0958	
78	90122-0159	90122-0799	90122-0959	
80	90122-0160	90122-0800	90122-0960	

For other available versions contact Molex

2.54mm (.100") Pitch C-Grid III™ Shrouded Header

90136
Single Row Vertical



Features and Benefits
- Sizes 2 to 32 circuits
- Contact and plating orientation according to DIN 41651
- North/south contact orientation avoids overstress
- High pin retention
- Polarized
- Friction lock

Reference Information
Product Specification: PS-99020-0001
Packaging: Tray
Mates With: 90123 and 90156
Designed In: Inches

Electrical
Voltage: 350V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Resistance: 20N (2.0kgf) min.
Mating Force: 1N max. Gold and 3N max. Tin
Unmating Force: 0.2N min. Gold and 0.2N min. Tin
Normal Force: 1N

Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Copper Alloy, 0.64mm (.025") square pins
Plating: See Table

Plating A: 4µm (160µ") Tin over Nickel
Plating E: 0.38µm (15µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel
Plating F: 0.76µm (30µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel

Not For Use With Molex SL™ Components

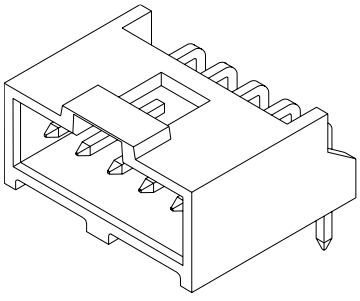
Circuits	Order No.			Lead-free
	Plating A	Plating E	Plating F	
2	90136-1102	90136-1202	90136-1302	Yes
3	90136-1103	90136-1203	90136-1303	
4	90136-1104	90136-1204	90136-1304	
5	90136-1105	90136-1205	90136-1305	
6	90136-1106	90136-1206	90136-1306	
7	90136-1107	90136-1207	90136-1307	
8	90136-1108	90136-1208	90136-1308	
9	90136-1109	90136-1209	90136-1309	

Circuits	Order No.			Lead-free
	Plating A	Plating E	Plating F	
10	90136-1110	90136-1210	90136-1310	Yes
12	90136-1112	90136-1212	90136-1312	
15	90136-1115	90136-1215	90136-1315	
18	90136-1118	90136-1218	90136-1318	
22	90136-1122	90136-1222	90136-1322	
25	90136-1125	90136-1225	90136-1325	
30	90136-1130	90136-1230	90136-1330	
32	90136-1132	90136-1232	90136-1332	

For other available circuit sizes contact Molex

2.54mm (.100") Pitch C-Grid III™ Shrouded Header

90136
Single Row Right Angle



Features and Benefits
- Sizes 2 to 32 circuits
- Contact and plating orientation according to DIN 41651
- North/south contact orientation avoids overstress
- High pin retention, polarized and friction lock
- 1 through 6 circuits with endwall stabilization features

Reference Information
Product Specification: PS-99020-0001
Packaging: Tray
Mates With: 90123 and 90156
Designed In: Inches

Electrical
Voltage: 350V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 20N (2.0kgf) min.
Mating Force: 1N Gold and 3N max. Tin
Unmating Force: 0.2N min. Gold and 0.2N min. Tin
Normal Force: 1N

Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Copper Alloy, 0.64mm (.025") square pins
Plating: See Table

Plating A: 4µm (160µ") Tin over Nickel
Plating E: 0.38µm (15µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel
Plating F: 0.76µm (30µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel

Not For Use With Molex SL™ Components

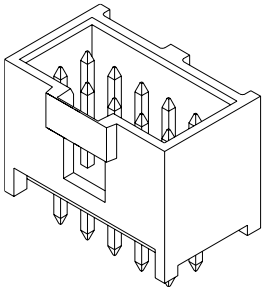
Circuits	Order No.			Lead-free
	Plating A	Plating E	Plating F	
2	90136-2102	90136-2202	90136-2302	Yes
3	90136-2103	90136-2203	90136-2303	
4	90136-2104	90136-2204	90136-2304	
5	90136-2105	90136-2205	90136-2305	
6	90136-2106	90136-2206	90136-2306	
7	90136-2107	90136-2207	90136-2307	
8	90136-2108	90136-2208	90136-2308	
9	90136-2109	90136-2209	90136-2309	

Circuits	Order No.			Lead-free
	Plating A	Plating E	Plating F	
10	90136-2110	90136-2210	90136-2310	Yes
12	90136-2112	90136-2212	90136-2312	
15	90136-2115	90136-2215	90136-2315	
18	90136-2118	90136-2218	90136-2318	
22	90136-2122	90136-2222	90136-2322	
25	90136-2125	90136-2225	90136-2325	
30	90136-2130	90136-2230	90136-2330	
32	90136-2132	90136-2232	90136-2332	

For other available circuit sizes contact Molex

2.54mm (.100") Pitch C-Grid III™ Shrouded Header

90130
Dual Row, Vertical Fully Loaded



Features and Benefits
- Sizes 6 to 64 circuits
- Contact and plating orientation according to DIN 41651
- North/south contact orientation avoids overstress
- High pin retention
- Polarized
- Friction lock

Reference Information
Product Specification: PS-99020-0001
Packaging: Tray
Mates With: 90142
Designed In: Inches

Electrical
Voltage: 350V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 20N (2.0kgf) min.
Mating Force: 1N max. Gold and 3N max. Tin
Unmating Force: 0.2N min. Gold and 0.2N min. Tin
Normal Force: 1N

Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Copper Alloy, 0.64mm (.025") square pins
Plating: See Table

Plating A: 4µm (160µ") Tin over Nickel
Plating E: 0.38µm (15µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel
Plating F: 0.76µm (30µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel

Not For Use With Molex SL™ Components

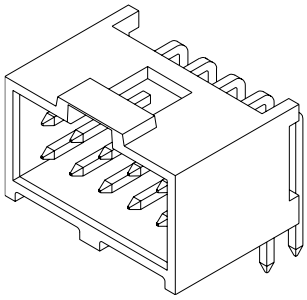
Circuits	Order No.			Lead-free
	Plating A	Plating E	Plating F	
6	90130-1106	90130-1206	90130-1306	Yes
8	90130-1108	90130-1208	90130-1308	
10	90130-1110	90130-1210	90130-1310	
12	90130-1112	90130-1212	90130-1312	
14	90130-1114	90130-1214	90130-1314	
16	90130-1116	90130-1216	90130-1316	
18	90130-1118	90130-1218	90130-1318	
20	90130-1120	90130-1220	90130-1320	
24	90130-1124	90130-1224	90130-1324	

Circuits	Order No.			Lead-free
	Plating A	Plating E	Plating F	
26	90130-1126	90130-1226	90130-1326	Yes
30	90130-1130	90130-1230	90130-1330	
34	90130-1134	90130-1234	90130-1334	
38	90130-1138	90130-1238	90130-1338	
40	90130-1140	90130-1240	90130-1340	
50	90130-1150	90130-1250	90130-1350	
60	90130-1160	90130-1260	90130-1360	
64	90130-1164	90130-1264	90130-1364	

For other available circuit sizes contact Molex

2.54mm (.100") Pitch C-Grid III™ Shrouded Header

90130
Dual Row, Right Angle Fully Loaded



Features and Benefits
- Sizes 6 to 64 circuits
- Contact and plating orientation according to DIN 41651
- North/south contact orientation avoids overstress
- High pin retention
- Polarized
- Friction lock

Reference Information
Product Specification: PS-99020-0001
Packaging: Tray
Mates With: 90142
Designed In: Inches

Electrical
Voltage: 350V max.
Current: 3.0A
Contact Resistance: 20 milliohms max.
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 20N (2.0kgf) min.
Mating Force: 1N max. Gold and 3N max. Tin
Unmating Force: 0.2N min. Gold and 0.2N min. Tin
Nominal Force: 1N

Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Copper Alloy, 0.64mm (.025") square pins
Plating: See Table

Plating A: 4µm (160µ") Tin over Nickel
Plating E: 0.38µm (15µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel
Plating F: 0.76µm (30µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel

Not For Use With Molex SL™ Components

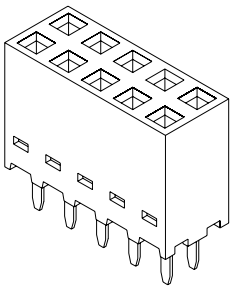
Circuits	Order No.			Lead-free
	Plating A	Plating E	Plating F	
6	90130-3106	90130-3206	90130-3306	Yes
8	90130-3108	90130-3208	90130-3308	
10	90130-3110	90130-3210	90130-3310	
12	90130-3112	90130-3212	90130-3312	
14	90130-3114	90130-3214	90130-3314	
16	90130-3116	90130-3216	90130-3316	
18	90130-3118	90130-3218	90130-3318	
20	90130-3120	90130-3220	90130-3320	
24	90130-3124	90130-3224	90130-3324	

Circuits	Order No.			Lead-free
	Plating A	Plating E	Plating F	
26	90130-3126	90130-3226	90130-3326	Yes
30	90130-3130	90130-3230	90130-3330	
34	90130-3134	90130-3234	90130-3334	
38	90130-3138	90130-3238	90130-3338	
40	90130-3140	90130-3240	90130-3340	
50	90130-3150	90130-3250	90130-3350	
60	90130-3160	90130-3260	90130-3360	
64	90130-3164	90130-3264	90130-3364	

For other available circuit sizes contact Molex

2.54mm (.100") Pitch C-Grid III™ PC Board Connectors

90151
Dual Row, Vertical



Features and Benefits
- Sizes 4 to 64 circuits
- Contact and plating orientation according to DIN 41651
- Stackable in 2 directions
- Meets HE 13/14 specification

Reference Information
Product Specification: PS-99020-0001
Packaging: Tube
Mates With: 0.64mm (.025") square pins
Use With: 1.57mm (.062") thick PC boards
Designed In: Inches

Electrical
Voltage: 350V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 15N min.
Mating Force: 1N max. Gold and 3N max. Tin
Unmating Force: 0.2N min. Gold and 0.2N min. Tin
Normal Force: 1N

Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table
Recommended Mating Pin Length:
5.65mm (.222") min. to 7.00mm (.275") max.

Plating A: 1.00µm (39µ") min. Hot Tin dip
Plating E: 0.38µm (15µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel
Plating F: 0.76µm (30µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel

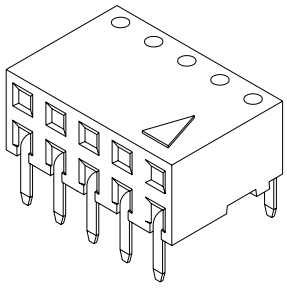
Not For Use With Molex SL™ Components

Circuits	Order No.						Lead-free
	Straight Tail			Kinked Tail			
	Plating A	Plating E	Plating F	Plating A	Plating E	Plating F	
4	90151-2104	90151-2204	90151-2304	90151-3104	90151-3204	90151-3304	Yes
6	90151-2106	90151-2206	90151-2306	90151-3106	90151-3206	90151-3306	
8	90151-2108	90151-2208	90151-2308	90151-3108	90151-3208	90151-3308	
10	90151-2110	90151-2210	90151-2310	90151-3110	90151-3210	90151-3310	
14	90151-2114	90151-2214	90151-2314	90151-3114	90151-3214	90151-3314	
16	90151-2116	90151-2216	90151-2316	90151-3116	90151-3216	90151-3316	
20	90151-2120	90151-2220	90151-2320	90151-3120	90151-3220	90151-3320	
26	90151-2126	90151-2226	90151-2326	90151-3126	90151-3226	90151-3326	
34	90151-2134	90151-2234	90151-2334	90151-3134	90151-3234	90151-3334	
40	90151-2140	90151-2240	90151-2340	90151-3140	90151-3240	90151-3340	
50	90151-2150	90151-2250	90151-2350	90151-3150	90151-3250	90151-3350	
60	90151-2160	90151-2260	90151-2360	90151-3160	90151-3260	90151-3360	
64	90151-2164	90151-2264	90151-2364	90151-3164	90151-3264	90151-3364	

For other available circuit sizes contact Molex

2.54mm (.100") Pitch C-Grid III™ PC Board Connectors

90152
Dual Row, Horizontal



Features and Benefits
- Sizes 4 to 64 circuits
- Contact and plating orientation according to DIN 41651
- Stackable end-to-end
- Meets HE 13/14 specification

Reference Information
Product Specification: PS-99020-0001
Packaging: Tube
Mates With: 0.64mm (.025") square pins
Use With: 1.57mm (.062") thick PC boards
Designed In: Inches

Electrical
Voltage: 350V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 8.8N min.
Mating Force: 1N max. Gold and 3N max. Tin
Unmating Force: 0.2N min. Gold and 0.2N min. Tin
Normal Force: 1N

Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table
Recommended Mating Pin Length:
5.65mm (.222") min. to 7.00mm (.275") max.

Plating A: 1.00µm (39µ") min. Hot Tin dip
Plating E: 0.38µm (15µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel
Plating F: 0.76µm (30µ") selective Gold over Nickel and 4µm (160µ") Tin over Nickel

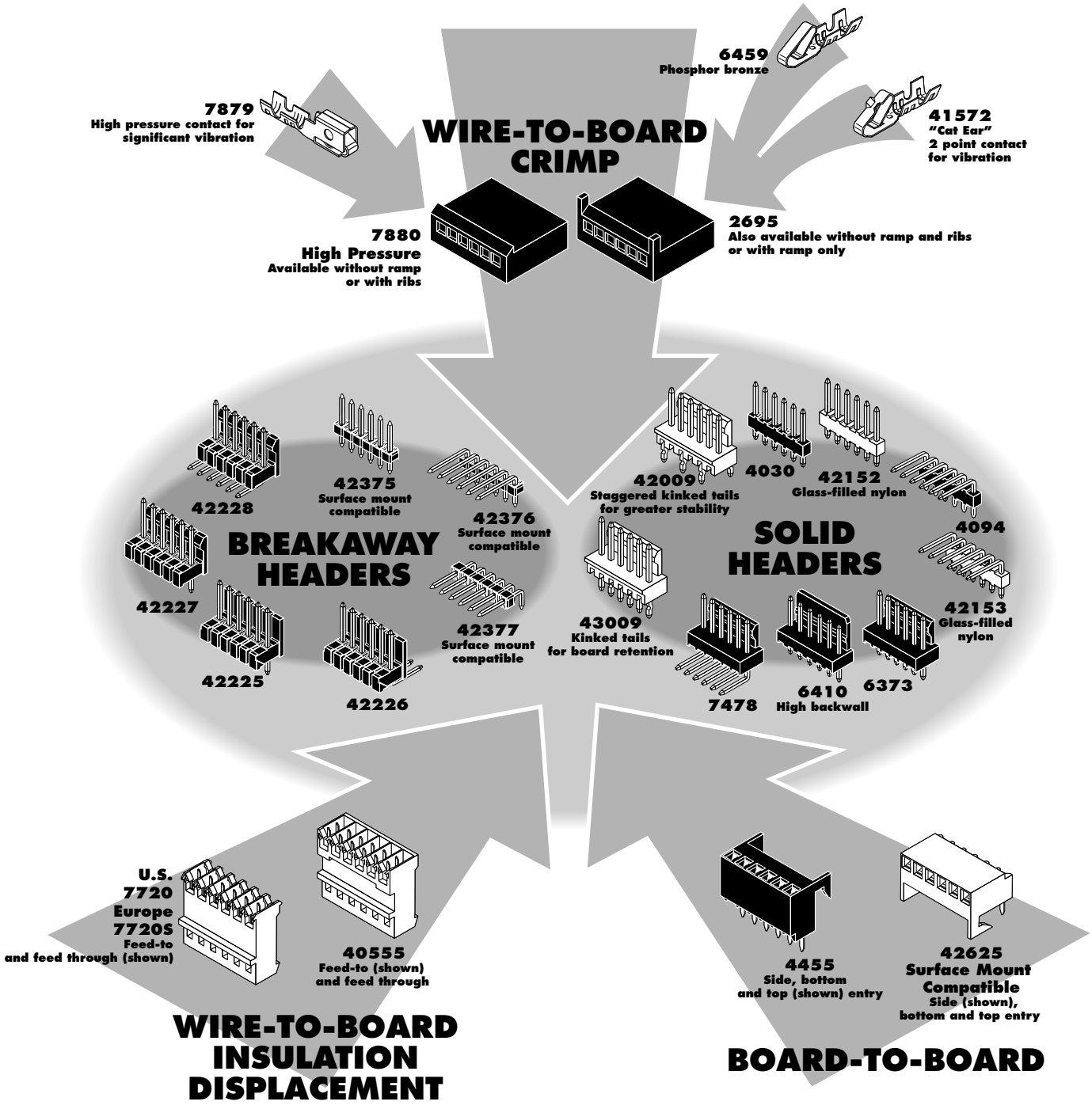
Not For Use With Molex SL™ Components

Circuits	Order No.			Lead-free
	Straight Tail			
	Plating A	Plating E	Plating F	
4	90152-2104	90152-2204	90152-2304	Yes
6	90152-2106	90152-2206	90152-2306	
8	90152-2108	90152-2208	90152-2308	
10	90152-2110	90152-2210	90152-2310	
14	90152-2114	90152-2214	90152-2314	
16	90152-2116	90152-2216	90152-2316	
20	90152-2120	90152-2220	90152-2320	

Circuits	Order No.			Lead-free
	Straight Tail			
	Plating A	Plating E	Plating F	
26	90152-2126	90152-2226	90152-2326	Yes
34	90152-2134	90152-2234	90152-2334	
40	90152-2140	90152-2240	90152-2340	
50	90152-2150	90152-2250	90152-2350	
60	90152-2160	90152-2260	90152-2360	
64	90152-2164	90152-2264	90152-2364	

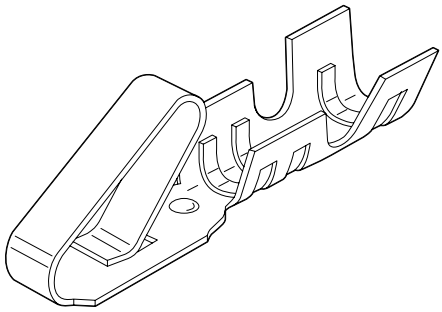
For other available circuit sizes contact Molex

2.54mm (.100") Pitch KK®
Product Overview



2.54mm (.100") Pitch KK® Crimp Terminal

2759/6459



Features and Benefits
- Standard cantilever terminal
- Cantilever design provides high contact pressure
- Wiping action cleans oxides when connector is mated
- 2759 Series is Brass
- 6459 Series is Phosphor Bronze

Reference Information
Product Specification: PS-10-07
Tooling Information: See crimp tooling section
UL File No.: E29179
CSA File No.: LR19980
Use With: 2695, 5051 and 6745 housings

Electrical
Voltage: 250V
Current: 6459—4.0A
2759—2.5A
Contact Resistance: 20 milliohms max.

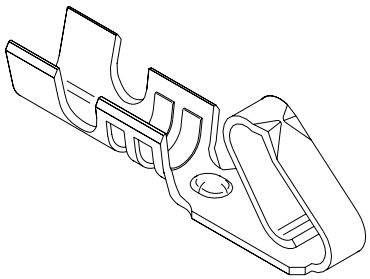
Mechanical
Mating Force: 255g max. per contact
Unmating Force: 50g min. per contact
Normal Force: 200g min. per contact

Physical
Contact: 6459—Phosphor Bronze; 2759—Brass
Wire Accommodation: 22 to 30 AWG

Contact	Order No.						Wire Gauge (AWG)	Insulation OD	Lead-free
	Tin Plating		15µ" Gold Plating		15µ" Selective Gold Plating				
	Reel	Bag	Reel	Bag	Reel	Bag			
Brass	08-50-0113	08-50-0114	08-56-0109	08-56-0110	08-55-0101	08-55-0102	22-30	1.57 (.062)	Yes
Phosphor Bronze	08-52-0101	08-52-0123	08-65-0813	08-65-0814	08-65-0815	08-65-0816			

2.54mm (.100") Pitch KK® Cat Ear Terminal

5159



Features and Benefits
- Similar to 2759/6459 Series with cat ears
- Cat ears provide 2 high pressure points of contact
- Suitable for high vibrational requirements

Reference Information
Packaging: Bag or reel
UL File No.: E29179
CSA File No.: LR19980
Use With: 2695, 5051 and 6471
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 3.0A max.

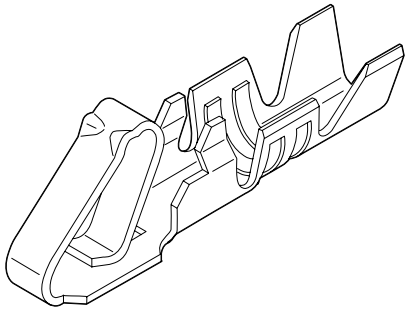
Physical
Contact: Phosphor Bronze and Brass
Plating: Tin
Wire Accommodation: 22 to 28 AWG

Order No.				Lead-free
Phosphor Bronze		Brass		
Bag	Reel	Bag	Reel	
08-70-0049	08-70-0048	08-70-0069	08-70-0064	Yes

Preferred version in the Far East

2.54mm (.100") Pitch KK® Crimp Terminal

4809
Anti-Fishhooking



Features and Benefits
- Avoids tangling at pre-assembly
- Available with cat ears

Reference Information
Product Specification: PS-10-07
Tooling Information: See crimp tooling section
UL File No.: E29179
CSA File No.: LR19980
Used With: 5051-NM and 6471 housings

Electrical
Voltage: 250V
Current: 2.5A
Contact Resistance: 20 milliohms max.

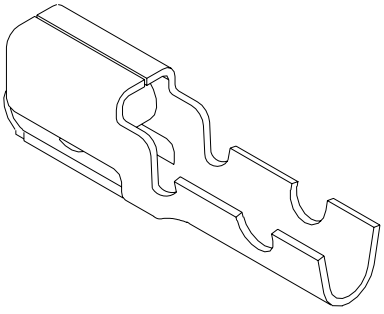
Mechanical
Mating Force: 199g max. per contact
Unmating Force: 57g min. per contact
Normal Force: 300g per contact

Physical
Contact: Brass
Wire Accommodation: 22 to 30 AWG

Order No.		Plating	Crimp Wire Size	Insulation Diameter	Engineering No.	Lead-free
Bag	Reel					
08-50-0032	08-50-0031	1.00 to 2.50m Tin	22-30	1.57 (.062) max.	4809	Yes
08-55-0111	08-55-0110	0.38m Gold in contact area only				
08-56-0115	08-56-0120	0.38m Gold in contact area, Gold flash overall				

2.54mm (.100") Pitch KK® Crimp Terminal

7879
High Pressure



Features and Benefits
- Multiple contacting points
- Patented triple cantilever with box shroud
- Suitable for high vibration requirements
- Box shroud prevents contamination to the contact surface
- Crimping die or hand tool available

Reference Information
Product Specification: PS-7879
Tooling Information: See crimp tooling section
UL File No.: E29179
CSA File No.: LR19980
Use With: 7880 housings

Electrical
Voltage: 250V
Current: 2.5A
Contact Resistance: 10 milliohms max.

Mechanical
Mating Force: 475g max.
Unmating Force: 100g min.
Normal Force: 430g min.

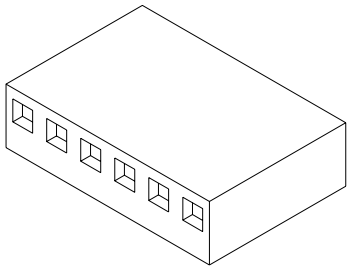
Physical
Contact: Brass
Wire Accommodation: 22 to 30 AWG

Order No.		Plating	Wire Gauge (AWG)	Insulation Diameter	Lead-free
Reel	Bag				
08-50-0004	08-50-0005	Tin/Copper	22-30	1.57 (.062) max.	Yes
08-55-0124	08-55-0129	Select Gold			

Recommended wire range assumes stranded wire

2.54mm (.100") Pitch KK® Crimp Terminal Housing Receptacle

2695/6471



Features and Benefits
- Sizes 1 to 25 circuits
- 6471 is end-to-end stackable (2 housings only)
- 2695 version with or without locking ramp and polarizing ribs

Reference Information
Product Specification: PS-10-07
UL File No.: E29179
CSA File No.: LR19980
Mates With: Molex KK 2.54mm (.100") pitch headers and 0.04mm (.025") pins
Use With: 2695—2759, 6459 or 41572 terminals
6471—4809 terminals

Mechanical*
Locking: Passive, none

Physical
Housing: Nylon, UL 94V-0

Circuits	Order No.			
	2695			6471
	With Locking Ramp	With Locking Ramp and Polarizing Ribs	Without Locking Ramp or Ribs	With Locking Ramp and Polarizing Ribs†
1			22-01-2011	
2	22-01-2027	22-01-3027	22-01-2021	22-01-2025
3	22-01-2037	22-01-3037	22-01-2031	22-01-2035
4	22-01-2047	22-01-3047	22-01-2041	22-01-2045
5	22-01-2057	22-01-3057	22-01-2051	22-01-2055
6	22-01-2067	22-01-3067	22-01-2061	22-01-2065
7	22-01-2077	22-01-3077	22-01-2071	22-01-2075
8	22-01-2087	22-01-3087	22-01-2081	22-01-2085
9	22-01-2097	22-01-3097	22-01-2091	22-01-2095
10	22-01-2107	22-01-3107	22-01-2101	22-01-2105
11	22-01-2117	22-01-3117	22-01-2111	22-01-2115
12	22-01-2127	22-01-3127	22-01-2121	22-01-2125
13	22-01-2137	22-01-3137	22-01-2131	22-01-2135

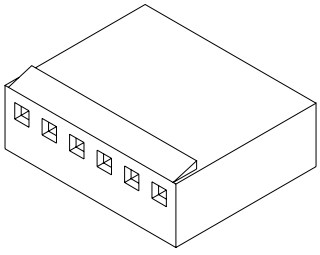
Circuits	Order No.			
	2695			6471
	With Locking Ramp	With Locking Ramp and Polarizing Ribs	Without Locking Ramp or Ribs	With Locking Ramp and Polarizing Ribs†
14	22-01-2147	22-01-3147	22-01-2141	22-01-2145
15	22-01-2157	22-01-3157	22-01-2151	22-01-2155
16	22-01-2167	22-01-3167	22-01-2161	22-01-2165
17	22-01-2177	22-01-3177	22-01-2171	22-01-2175
18	22-01-2187	22-01-3187	22-01-2181	22-01-2185
19	22-01-2197	22-01-3197	22-01-2191	
20	22-01-2207	22-01-3207	22-01-2201	
21	22-01-2217	22-01-3217	22-01-2211	
22	22-01-2227	22-01-3227	22-01-2221	
23	22-01-2237	22-01-3237	22-01-2231	
24	22-01-2247	22-01-3247	22-01-2241	
25	22-01-2257	22-01-3257	22-01-2151	

Note: When mating polarizing rib version with breakaway friction lock header or polarizing wall series, the end friction lock or polarizing wall of header must be removed
* When mated with Molex product only
† For circuits 19-28, contact Molex

Order No.	
Polarizing Key	Polarizing Peg
15-04-9209	15-04-9210

2.54mm (.100") Pitch KK® Crimp Terminal Housing

7880
High Pressure



Features and Benefits
- Sizes 1 to 28 circuits
- Standard with locking ramp
- Suitable for high vibration requirements

Reference Information
Product Specification: PS-7879
UL File No.: E29179
CSA File No.: LR19980
Mates With: Molex KK 2.54mm (.100") pitch headers
Use With: 7879 terminals

Mechanical
Locking: Passive, none

Physical
Housing: Nylon, UL 94V-0

Circuits	Order No.
1	10-11-2013
2	10-11-2023
3	10-11-2033
4	10-11-2043
5	10-11-2053
6	10-11-2063
7	10-11-2073
8	10-11-2083
9	10-11-2093
10	10-11-2103

Circuits	Order No.
11	10-11-2113
12	10-11-2123
13	10-11-2133
14	10-11-2143
15	10-11-2153
16	10-11-2163
17	10-11-2173
18	10-11-2183
19	10-11-2193

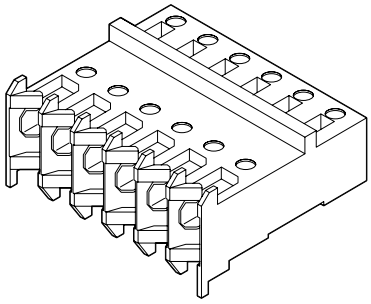
Circuits	Order No.
20	10-11-2203
21	10-11-2213
22	10-11-2223
23	10-11-2233
24	10-11-2243
25	10-11-2253
26	10-11-2263
27	10-11-2273
28	10-11-2283

Note: In the Far East this housing has a different Engineering Series No. and different Order No.

2.54mm (.100") Pitch KK® Connector

7720

24, 26 or 28 AWG, IDT Double Cantilever Contact



Features and Benefits

- Sizes 2 to 28 circuits
- 4 points of contact on conductor
- Feed-to and feed-through versions available
- End-to-end polarization optional
- Molded-in strain reliefs
- Terminals available with Gold plating (contact Molex for details)

Reference Information

Product Specification: PS-7690
UL File No.: E29179
CSA File No.: LR19980
Mates With: Molex KK 2.54mm (.100") pitch headers and 0.64mm (.025") pins
Use Molex Cable: 7234, 7307, 7767, 8996, 8997, 24214 and 24241

Electrical

Voltage: 250V
Current: 3.5A max. (24 AWG)
Contact Resistance: 20 milliohms max.

Mechanical

Contact Retention to Housing: 6 lb min.
Mating Force: 255g max.
Unmating Force: 85g min.
Normal Force: 6.5 oz min.

Physical

Housing: Nylon, UL 94V-2
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 0.76 to 1.52mm (.030 to .060") OD max. (Discrete Wire) and 0.76 to 1.27mm (.030 to .050") OD max. (mass termination)

Order No.						Color	Type of Wire Terminated	Lead-free
Feed-Through		Feed-To						
Without Ramp	With Ramp	With Polarized Ramp	Without Ramp	With Ramp	With Polarized Ramp			
22-26-7XX1	22-26-8XX1	22-26-9XX1	22-41-3XX1	22-41-4XX1	22-41-5XX1	Brown	26 AWG stranded or solid, and 28 AWG solid, stranded or fused	Yes
22-26-7XX2	22-26-8XX2	22-26-9XX2	22-41-3XX2	22-41-4XX2	22-41-5XX2	Green	24 AWG stranded, solid, fused, topcoat, and 26 AWG fused and topcoat	
Replace XX with number of circuits, 02 to 28								

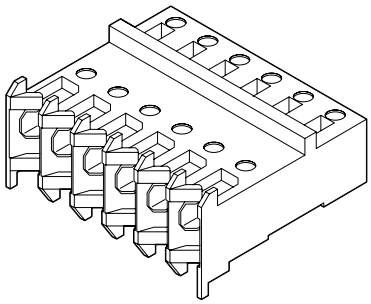
Note: Some wires require deviation from chart

Order No.		
Polarizing Key	Feed To	Feed Through
15-04-0292	15-05-8XX7	15-05-8XX5

2.54mm (.100") Pitch KK® Connector

7720

22 AWG, IDT Double Cantilever Contact



Features and Benefits

- Sizes 2 to 28 circuits
- 4 points of contact on conductor
- Feed-to and feed-through versions available
- End-to-end polarization optional
- Molded-in strain reliefs
- Terminals available with Gold plating (contact Molex for details)

Reference Information

Product Specification: PS-7690
UL File No.: E29179
CSA File No.: LR19980
Mates With: Molex KK 2.54mm (.100") pitch headers and 0.64mm (.025") pins
Use Molex Cable: 7234, 7307, 7767, 8996, 8997, 24214 and 24241

Electrical

Voltage: 250V
Current: 3.5A max.
Contact Resistance: 20 milliohms max.

Mechanical

Contact Retention to Housing: 6 lb min.
Mating Force: 255g max. per contact
Unmating Force: 85g min. per contact
Normal Force: 6.5 oz min. per contact

Physical

Housing: Nylon, UL 94V-2
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 0.76 to 1.52mm (.030 to .060") OD max. (Discrete Wire) and 0.76 to 1.27mm (.030 to .050") OD max. (mass termination)

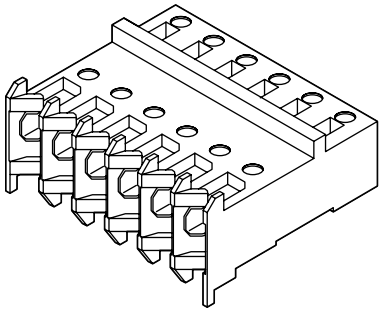
Order No.						Color	Type of Wire Terminated	Lead-free
Feed-Through			Feed-To					
Without Ramp	With Ramp	With Polarized Ramp	Without Ramp	With Ramp	With Polarized Ramp			
22-42-6XX0	22-42-6XX1	22-42-6XX2	22-42-6XX3	22-42-6XX4	22-42-6XX5	Black	22 AWG stranded tinned	Yes
Replace XX with number of circuits, 02 to 28								

Order No.		
Polarizing Key	Feed To	Feed Through
15-04-0292	15-05-8XX7	15-05-8XX5

2.54mm (.100") Pitch KK® Connector

7720S

IDT, High Pressure Cat Ear Contact System



Features and Benefits

- Sizes 2 to 28 circuits
- Standard with locking ramp
- Molded-in strain reliefs

Reference Information

Product Specification: PSX-7690S
Tooling Information: See end of section
UL File No.: E29179
CSA File No.: LR19980
Mates With: Molex KK 2.54mm (.100") pitch headers and 0.64mm (.025") pins
Use Molex Cable: 7234, 7307, 7767, 8996, 8997, 24214, 24226 and 24241

Electrical

Voltage: 250V
Current: 2.5A
Contact Resistance: 20 milliohms max.

Mechanical

Contact Retention to Housing: 8 lb min.
Wire Pull-Out Force: 1.35 lb min. per contact
Mating Force: 9 oz max. per contact
Unmating Force: 2 oz min. per contact
Normal Force: 6.5 oz min. per contact

Physical

Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin
Wire Range: 0.76mm (.030") to 1.42mm (.056") OD

Circuits	Version		Lead-free
	H	J	
2	22-50-3025	38-00-2092	Yes
3	22-50-3035	38-00-2093	
4	22-50-3045	38-00-2094	
5	22-50-3055	38-00-2095	
6	22-50-3065	38-00-2096	
7	22-50-3075	38-00-2097	
8	22-50-3085	38-00-2098	
9	22-50-3095	38-00-2099	
10	22-50-3105	38-00-2100	

Circuits	Version		Lead-free
	H	J	
11	22-50-3115	38-00-2101	Yes
12	22-50-3125	38-00-2102	
13	22-50-3135	38-00-2103	
14	22-50-3145	38-00-2104	
15	22-50-3155	38-00-2105	
16	22-50-3165	38-00-2106	
17	22-50-3175	38-00-2107	
18	22-50-3185	38-00-2108	
19	22-50-3195	38-00-2109	

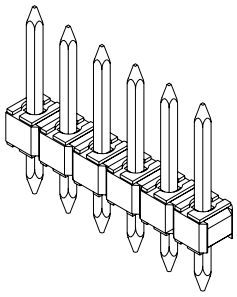
Circuits	Version		Lead-free
	H	J	
20	22-50-3205	38-00-2110	Yes
21	22-50-3215	38-00-2111	
22	22-50-3225	38-00-2112	
23	22-50-3235	38-00-2113	
24	22-50-3245	38-00-2114	
25	22-50-3255	38-00-2115	
26	22-50-3265	38-00-2116	
27	22-50-3275	38-00-2117	
28	22-50-3285	38-00-2118	

Color Identification Stripe		Type of Wire Terminated [all wires have a max. insulation diameter of 1.42mm (.056")]
ID Slot Version	Color	
H	Green	24 AWG stranded, 26 AWG solid and fused, and 28 AWG fused
J	Brown	26 AWG stranded, and 28 AWG solid and stranded

Order No.	
Polarizing Key	15-04-0292

2.54mm (.100") Pitch KK® Breakaway Header

42375
Vertical



Features and Benefits
- Sizes 2 to 36 circuits
- Available with kinked PC tails
- .240, .295 and .320" standard mating lengths
- Voided circuits available (contact Molex)

Reference Information
Product Specification: PS-10-07
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2695, 4455, 6471, 7720, 7859, 7880, 40556, 70066A, 70400A, 70430, 90147 and 90148

Electrical
Voltage: 250V
Current: 4.0A
Contact Resistance: 20 milliohms max.

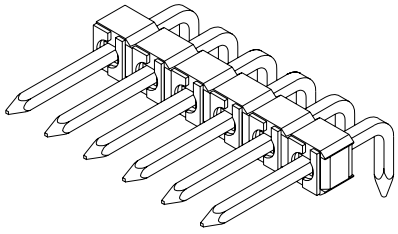
Mechanical
Durability: Tin—25 cycles max.
Gold—100 cycles max.

Physical
Housing: 4/6 glass-filled nylon, UL 94V-0
Contact: Phosphor Bronze

Plating Option	Order No.						Lead-free
	Mating End Length = 6.09mm (.240")		Mating End Length = 7.49mm (.295")		Mating End Length = 8.13mm (.320")		
	PC Tail Length = 3.18mm (.125")	PC Tail Length = 3.43mm (.135") Kinked PC Tail	PC Tail Length = 3.05mm (.120")	PC Tail Length = 3.43mm (.135") Kinked PC Tail	PC Tail Length = 3.05mm (.130")	PC Tail Length = 3.43mm (.135") Kinked PC Tail	
Tin	22-28-4XX0	22-28-5XX0	22-28-4XX2	22-28-5XX2	22-28-4XX1	22-28-5XX1	
15µ" select Gold	22-28-4XX3	22-28-5XX3	22-28-4XX5	22-28-5XX5	22-28-4XX4	22-28-5XX4	Yes
30µ" select Gold	22-28-4XX6	22-28-5XX6	22-28-4XX8	22-28-5XX8	22-28-4XX7	22-28-5XX7	
Replace XX with no. of circuits, 02-36							

2.54mm (.100") Pitch KK® Breakaway Header

42377
Right Angle



Features and Benefits
- Sizes 2 to 36 circuits
- Available with kinked PC tails
- .244 or .324" standard mating lengths
- Voided circuits available (contact Molex)
- Various pin lengths available

Reference Information
Product Specification: PS-10-07
UL File No.: E29179
CSA File No.: LR19980
Mates With*: 2695, 4455, 6471, 7720, 7859, 7880, 40556, 70066A, 70400A, 70430, 90147 and 90148

Electrical
Voltage: 250V
Current: 4.0A
Contact Resistance: 20 milliohms max.

Mechanical
Durability: Tin—25 cycles max.
Gold—100 cycles max.

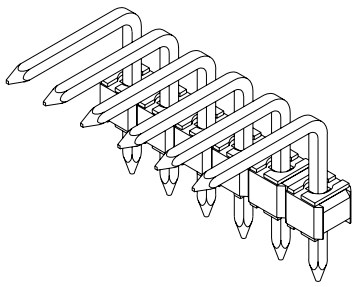
Physical
Housing: 4/6 glass-filled nylon, UL 94V-0
Contact: Phosphor Bronze

Plating Option	Order No.				Lead-free
	Mating End Length = 6.20mm (.244")		Mating End Length = 8.23mm (.324")		
	PC Tail Length = 3.05mm (.120")	PC Tail Length = 3.43mm (.135") Kinked PC Tail	PC Tail Length = 3.05mm (.120")	PC Tail Length = 3.43mm (.135") Kinked PC Tail	
Tin	22-28-8XX0	22-28-9XX0	22-28-8XX1	22-28-9XX1	
15µ" select Gold	22-28-8XX2	22-28-9XX2	22-28-8XX3	22-28-9XX3	Yes
30µ" select Gold	22-28-8XX4	22-28-9XX4	22-28-8XX5	22-28-9XX5	
Replace XX with no. of circuits, 02-36					

* 2695, 4455 and 7880 mate when 42377 is at board edge only
Circuit 1 designation is used to orient the header to locate the voided circuit. Review mating connector to assure correct mating orientation.

2.54mm (.100") Pitch KK® Breakaway Header

42376
Right Angle



Features and Benefits
- Sizes 2 to 36 circuits
- Available with kinked PC tails
- .361 and .405" standard mating lengths
- Tin and 15 or 30µ" Gold plating
- Voids optional (contact Molex)
- Surface Mount Compatible

Reference Information
Product Specification: PS-10-07
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2695, 4455, 6471, 7720, 7859, 7880, 40556, 70066A, 70400A, 70430, 90147 and 90148

Electrical
Voltage: 250V
Current: 4.0A
Contact Resistance: 20 milliohms max.

Mechanical
Durability: Tin—25 cycles max.
Gold—100 cycles max.

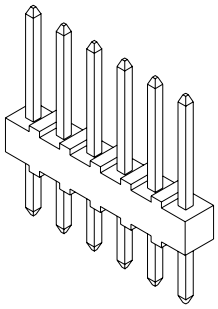
Physical
Housing: 4/6 glass-filled nylon, UL 94V-0
Contact: Phosphor Bronze

Plating Option	Order No.			
	M = 9.17mm (.361") C = 3.61mm (.142") P = 3.06mm (.120")	M = 9.17mm (.361") C = 3.61mm (.142") P = 3.43mm (.135") Kinked PC Tail	M = 10.29mm (.405") C = 6.30mm (.248") P = 3.06mm (.120")	M = 10.29mm (.405") C = 6.30mm (.248") P = 3.43mm (.135") Kinked PC Tail
Tin	22-28-6XX0	22-28-7XX0	22-28-6XX1	22-28-7XX1
15µ" select Gold	22-28-6XX2	22-28-7XX2	22-28-6XX3	22-28-7XX3
30µ" select Gold	22-28-6XX4	22-28-7XX4	22-28-6XX5	22-28-7XX5
Replace XX with no. of circuits, 02-36				

Note: Dimension M = Mating End, Dimension C = Mating Height and Dimension P = PC Tail
Circuit 1 designation is used to orient the header to locate the voided circuit. Review mating connector to assure correct mating orientation.

2.54mm (.100") Pitch KK® Solid Header

4030
Vertical



Features and Benefits
- Sizes 2 to 28 circuits
- 4030 with voids is 4380 Series
- Various pin lengths available
- Voided circuits available (contact Molex)

Reference Information
Product Specification: PS-10-07
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2695, 4455, 6471, 7720 and 7880

Electrical
Voltage: 250V
Current: 4.0A
Contact Resistance: 20 milliohms max.

Mechanical
Durability: Tin—25 cycles max.
Gold—100 cycles max.

Physical
Housing: Nylon, UL 94V-0
Contact: Brass

Circuits	Order No.		Lead-free
	Tin	Gold	
2	22-03-2021	22-10-2021	Yes
3	22-03-2031	22-10-2031	
4	22-03-2041	22-10-2041	
5	22-03-2051	22-10-2051	
6	22-03-2061	22-10-2061	
7	22-03-2071	22-10-2071	
8	22-03-2081	22-10-2081	
9	22-03-2091	22-10-2091	
10	22-03-2101	22-10-2101	

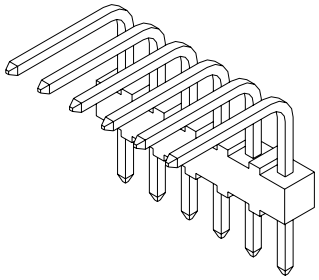
Circuits	Order No.		Lead-free
	Tin	Gold	
11	22-03-2111	22-10-2111	Yes
12	22-03-2121	22-10-2121	
13	22-03-2131	22-10-2131	
14	22-03-2141	22-10-2141	
15	22-03-2151	22-10-2151	
16	22-03-2161	22-10-2161	
17	22-03-2171	22-10-2171	
18	22-03-2181	22-10-2181	
19	22-03-2191	22-10-2191	

Circuits	Order No.		Lead-free
	Tin	Gold	
20	22-03-2201	22-10-2201	Yes
21	22-03-2211	22-10-2211	
22	22-03-2221	22-10-2221	
23	22-03-2231	22-10-2231	
24	22-03-2241	22-10-2241	
25	22-03-2251	22-10-2251	
26	22-03-2261	22-10-2261	
27	22-03-2271	22-10-2271	
28	22-03-2281	22-10-2281	

Note: In the Far East, the polyester product has different Engineering No. and Order No.
Circuit 1 designation is used to orient the header to locate the voided circuit. Review mating connector to assure correct mating orientation.

2.54mm (.100") Pitch KK® Solid Header

4094
Right Angle



Features and Benefits
- Sizes 2 to 28 circuits
- 4094 with voids is 4494 Series
- Various pin lengths available
- Voided circuits available (contact Molex)

Reference Information
Product Specification: PS-10-07
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2695, 4455, 6471, 7720 and 7880

Electrical
Voltage: 250V
Current: 4.0A
Contact Resistance: 20 milliohms max.

Mechanical
Durability: Tin—25 cycles max.
Gold—100 cycles max.

Physical
Housing: Nylon, UL 94V-0
Contact: Brass

Circuits	Order No.		Lead-free
	Tin	Gold	
2	22-05-2021	22-12-2021	Yes
3	22-05-2031	22-12-2031	
4	22-05-2041	22-12-2041	
5	22-05-2051	22-12-2051	
6	22-05-2061	22-12-2061	
7	22-05-2071	22-12-2071	
8	22-05-2081	22-12-2081	
9	22-05-2091	22-12-2091	
10	22-05-2101	22-12-2101	

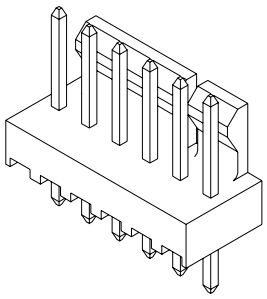
Circuits	Order No.		Lead-free
	Tin	Gold	
11	22-05-2111	22-12-2111	Yes
12	22-05-2121	22-12-2121	
13	22-05-2131	22-12-2131	
14	22-05-2141	22-12-2141	
15	22-05-2151	22-12-2151	
16	22-05-2161	22-12-2161	
17	22-05-2171	22-12-2171	
18	22-05-2181	22-12-2181	

Circuits	Order No.		Lead-free
	Tin	Gold	
19	22-05-2191	22-12-2191	Yes
20	22-05-2201	22-12-2201	
21	22-05-2211	22-12-2211	
22	22-05-2221	22-12-2221	
23	22-05-2231	22-12-2231	
24	22-05-2241	22-12-2241	
25	22-05-2251	22-12-2251	
28	22-05-2281	22-12-2281	

Note: In the Far East the polyester product has different Engineering No. and Order No.

2.54mm (.100") Pitch KK® Solid Header

6373
Vertical, Friction Lock



Features and Benefits
- Sizes 2 to 28 circuits
- Friction lock provides passive lock to connector with ramp
- Good in high vibration applications
- Various pin lengths available
- Voided circuits available (contact Molex)

Reference Information
Product Specification: PS-10-07
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2695, 4455, 6471, 7220 and 7880

Electrical
Voltage: 250V
Current: 4.0A
Contact Resistance: 20 milliohms max.

Mechanical
Durability: Tin—25 cycles max.
Gold—100 cycles max.

Physical
Housing: Nylon, UL 94V-0
Contact: Brass

Circuits	Order No.		Lead-free
	Tin	Gold	
2	22-23-2021	22-11-2022	Yes
3	22-23-2031	22-11-2032	
4	22-23-2041	22-11-2042	
5	22-23-2051	22-11-2052	
6	22-23-2061	22-11-2062	
7	22-23-2071	22-11-2072	
8	22-23-2081	22-11-2082	
9	22-23-2091	22-11-2092	
10	22-23-2101	22-11-2102	

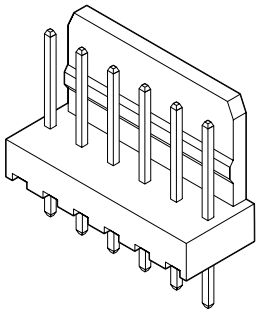
Circuits	Order No.		Lead-free
	Tin	Gold	
11	22-23-2111	22-11-2112	Yes
12	22-23-2121	22-11-2122	
13	22-23-2131	22-11-2132	
14	22-23-2141	22-11-2142	
15	22-23-2151	22-11-2152	
16	22-23-2161	22-11-2162	
17	22-23-2171	22-11-2172	
18	22-23-2181	22-11-2182	
19	22-23-2191	22-11-2192	

Circuits	Order No.		Lead-free
	Tin	Gold	
20	22-23-2201	22-11-2202	Yes
21	22-23-2211	22-11-2212	
22	22-23-2221	22-11-2222	
23	22-23-2231	22-11-2232	
24	22-23-2241	22-11-2242	
25	22-23-2251	22-11-2252	
26	22-23-2261	22-11-2262	
27	22-23-2271	22-11-2272	
28	22-23-2281	22-11-2282	

Note: Circuit 1 designation is used to orient the header to locate the voided circuit. Review mating connector to assure correct mating orientation.

2.54mm (.100") Pitch KK® Header

6410 Vertical Friction Lock



Features and Benefits
- Sizes 2 to 28 circuits
- Friction lock provides passive lock to connector with ramp
- Good in high vibration applications
- Higher backwall than the 6373 Series
- Various pin lengths available

Reference Information
Product Specification: PS-10-07
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2695 with locking ramp, 6471 and 7880

Electrical
Voltage: 250V
Current: 4.0A
Contact Resistance: 20 milliohms max.

Physical
Housing: Nylon, UL 94V-0
Contact: Brass

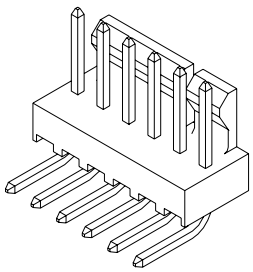
Circuits	Order No.		Lead-free
	Tin	Gold	
2	22-27-2021	22-29-2021	Yes
3	22-27-2031	22-29-2031	
4	22-27-2041	22-29-2041	
5	22-27-2051	22-29-2051	
6	22-27-2061	22-29-2061	
7	22-27-2071	22-29-2071	
8	22-27-2081	22-29-2081	
9	22-27-2091	22-29-2091	
10	22-27-2101	22-29-2101	

Circuits	Order No.		Lead-free
	Tin	Gold	
11	22-27-2111	22-29-2111	Yes
12	22-27-2121	22-29-2121	
13	22-27-2131	22-29-2131	
14	22-27-2141	22-29-2141	
15	22-27-2151	22-29-2151	
16	22-27-2161	22-29-2161	
17	22-27-2171	22-29-2171	
18	22-27-2181	22-29-2181	
19	22-27-2191	22-29-2191	

Circuits	Order No.		Lead-free
	Tin	Gold	
20	22-27-2201	22-29-2201	Yes
21	22-27-2211	22-29-2211	
22	22-27-2221	22-29-2221	
23	22-27-2231	22-29-2231	
24	22-27-2241	22-29-2241	
25	22-27-2251	22-29-2251	
26	22-27-2261	22-29-2261	
27	22-27-2271	22-29-2271	
28	22-27-2281	22-29-2281	

2.54mm (.100") Pitch KK® Solid Header

7478 Right Angle, Friction Lock



Features and Benefits
- Sizes 2 to 28 circuits
- Friction lock provides passive lock to connector with ramp
- 7478 with voids is 7832 Series
- Various pin lengths available
- End-to-end stackable
- Edge mount only

Reference Information
Product Specification: PS-10-07
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2695, 4455, 6471, 7720 and 7880

Electrical
Voltage: 250V
Current: 4.0A
Contact Resistance: 20 milliohms max.

Mechanical
Durability: Tin—25 cycles max.
Gold—100 cycles max.

Physical
Housing: Nylon, UL 94V-0
Contact: Brass

Circuits	Order No.		Lead-free
	Tin	Gold	
2	22-05-3021	22-12-2024	Yes
3	22-05-3031	22-12-2034	
4	22-05-3041	22-12-2044	
5	22-05-3051	22-12-2054	
6	22-05-3061	22-12-2064	
7	22-05-3071	22-12-2074	
8	22-05-3081	22-12-2084	
9	22-05-3091	22-12-2094	
10	22-05-3101	22-12-2104	

Circuits	Order No.		Lead-free
	Tin	Gold	
11	22-05-3111	22-12-2114	Yes
12	22-05-3121	22-12-2124	
13	22-05-3131	22-12-2134	
14	22-05-3141	22-12-2144	
15	22-05-3151	22-12-2154	
16	22-05-3161	22-12-2164	
17	22-05-3171	22-12-2174	
18	22-05-3181	22-12-2184	
19	22-05-3191	22-12-2194	

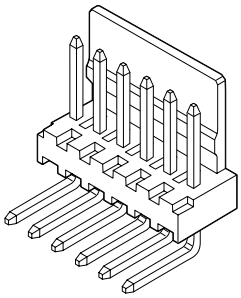
Circuits	Order No.		Lead-free
	Tin	Gold	
20	22-05-3201	22-12-2204	Yes
21	22-05-3211	22-12-2214	
22	22-05-3221	22-12-2224	
23	22-05-3231	22-12-2234	
24	22-05-3241	22-12-2244	
25	22-05-3251	22-12-2254	
26	22-05-3261	22-12-2264	
27	22-05-3271	22-12-2274	
28	22-05-3281	22-12-2284	

Note: Circuit 1 designation is used to orient the header to locate the voided circuit. Review mating connector to assure correct mating orientation.

2.54mm (.100") Pitch KK® Header

7395

Right Angle, Square Pin Friction Lock



Features and Benefits

- Sizes 2 to 28 circuits
- Edge mount only

Reference Information

Product Specification: PS-10-07
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2695 with locking ramp, 6471 and 7880

Physical

Housing: Natural nylon, UL 94V-0
Contact: Brass

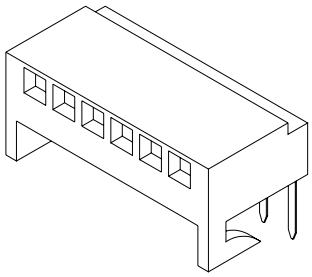
Circuits	Order No.		Lead-free
	Tin	Gold	
2	22-05-7028	22-12-4022	Yes
3	22-05-7038	22-12-4032	
4	22-05-7048	22-12-4042	
5	22-05-7058	22-12-4052	
6	22-05-7068	22-12-4062	
7	22-05-7078	22-12-4072	
8	22-05-7088	22-12-4082	
9	22-05-7098	22-12-4092	
10	22-05-7108	22-12-4102	

Circuits	Order No.		Lead-free
	Tin	Gold	
11	22-05-7118	22-12-4112	Yes
12	22-05-7128	22-12-4122	
13	22-05-7138	22-12-4132	
14	22-05-7148	22-12-4142	
15	22-05-7158	22-12-4152	
16	22-05-7168	22-12-4162	
17	22-05-7178	22-12-4172	
18	22-05-7188	22-12-4182	
19	22-05-7198	22-12-4192	

Circuits	Order No.		Lead-free
	Tin	Gold	
20	22-05-7208	22-12-4202	Yes
21	22-05-7218	22-12-4212	
22	22-05-7228	22-12-4222	
23	22-05-7238	22-12-4232	
24	22-05-7248	22-12-4242	
25	22-05-7258	22-12-4252	
26	22-05-7268	22-12-4262	
27	22-05-7278	22-12-4272	
28	22-05-7288	22-12-4282	

2.54mm (.100") Pitch KK®
PC Board Connector

4455
Right Angle



Features and Benefits
- Sizes 2 to 25 circuits
- End-to-end stackable
- See 44812 Series for high temperature version
- Thicker board hooks available

Reference Information
Product Specification: PS-10-07
UL File No.: E29179
CSA File No.: LR19980
Mates With: 4030, 4094, 4380, 42152, 42153, 42375, 42376 and 42377 headers and .025" square pins

Electrical
Voltage: 250V
Current: 2.5A max.*
Contact Resistance: 20 milliohms max.

Mechanical
Mating Force: 199g max.
Unmating Force: 57g min.

Physical
Housing: Nylon, UL 94V-0
Contact: Brass

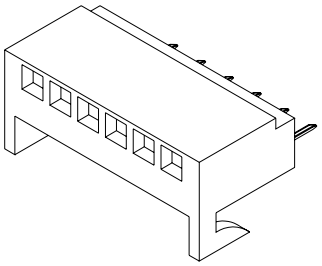
Circuits	Order No.				Lead-free
	Tin	Cat Ear Version	Gold	Select Gold	
2	22-15-2026	38-00-1332	22-16-2021	22-16-2020	Yes
3	22-15-2036	38-00-1333	22-16-2031	22-16-2030	
4	22-15-2046	38-00-1334	22-16-2041	22-16-2040	
5	22-15-2056	38-00-1335	22-16-2051	22-16-2050	
6	22-15-2066	38-00-1336	22-16-2061	22-16-2060	
7	22-15-2076	38-00-1337	22-16-2071	22-16-2070	
8	22-15-2086	38-00-1338	22-16-2081	22-16-2080	
9	22-15-2096	38-00-1339	22-16-2091	22-16-2090	
10	22-15-2106	38-00-1340	22-16-2101	22-16-2100	
11	22-15-2116	38-00-1341	22-16-2111	22-16-2110	
12	22-15-2126	38-00-1342	22-16-2121	22-16-2120	
13	22-15-2136	38-00-1343	22-16-2131	22-16-2130	
14	22-15-2146	38-00-1344	22-16-2141	22-16-2140	
15	22-15-2156	38-00-1345	22-16-2151	22-16-2150	
16	22-15-2166	38-00-1346	22-16-2161	22-16-2160	
17	22-15-2176	38-00-1347	22-16-2171	22-16-2170	
18	22-15-2186	38-00-1348	22-16-2181	22-16-2180	
19	22-15-2196	38-00-1349	22-16-2191	22-16-2190	
20	22-15-2206	38-00-1350	22-16-2201	22-16-2200	
21	22-15-2216	38-00-1351	22-16-2211	22-16-2210	
22	22-15-2226	38-00-1352	22-16-2221	22-16-2220	
23	22-15-2236	38-00-1353	22-16-2231	22-16-2230	
24	22-15-2246	38-00-1354	22-16-2241	22-16-2240	
25	22-15-2256	38-00-1355	22-16-2251	22-16-2250	

* Current rating is dependent upon PCB traces, Copper weight, solder, etc. (contact Molex for more information)

Order No.	
Polarizing Key 4161-1	15-04-9209

2.54mm (.100") Pitch KK®
PC Board Connector

4455
Top Entry



Features and Benefits
- Sizes 2 to 25 circuits
- End-to-end stackable
- Also available without board hooks (see table below)
- See 44812 Series for high temperature version
- Thicker board hooks available

Reference Information
Product Specification: PS-10-07
UL File No.: E29179
CSA File No.: LR19980
Mates With: 4030, 4094, 42152, 42153, 42375, 42376, 42377, 70021 and 70475 headers and .025" square pins (edge mount only)

Electrical
Voltage: 250V
Current: 2.5A max.*
Contact Resistance: 20 milliohms max.

Mechanical
Contact Retention to Housing: 3.63kg (8 lb) min.
Mating Force: 199g max.
Unmating Force: 57g min.
Normal Force: 300g average

Physical
Housing: Nylon, UL 94V-0
Contact: Brass

Circuits	Order No.					Lead-free
	Tin			Gold	Select Gold	
	With Hooks	Without Hooks	Cat Ear Version	With Hooks	With Hooks	
2	22-02-2025	22-02-7023	38-00-1422	22-18-2023	22-18-2021	
3	22-02-2035	22-02-7033	38-00-1423	22-18-2033	22-18-2031	
4	22-02-2045	22-02-7043	38-00-1424	22-18-2043	22-18-2041	
5	22-02-2055	22-02-7053	38-00-1425	22-18-2053	22-18-2051	
6	22-02-2065	22-02-7063	38-00-1426	22-18-2063	22-18-2061	
7	22-02-2075	22-02-7073	38-00-1427	22-18-2073	22-18-2071	
8	22-02-2085	22-02-7083	38-00-1428	22-18-2083	22-18-2081	
9	22-02-2095	22-02-7093	38-00-1429	22-18-2093	22-18-2091	
10	22-02-2105	22-02-7103	38-00-1430	22-18-2103	22-18-2101	
11	22-02-2115	22-02-7113	38-00-1431	22-18-2113	22-18-2111	
12	22-02-2125	22-02-7123	38-00-1432	22-18-2123	22-18-2121	
13	22-02-2135	22-02-7133	38-00-1433	22-18-2133	22-18-2131	
14			38-00-1434			Yes
15	22-02-2155	22-02-7153	38-00-1435	22-18-2153	22-18-2151	
16	22-02-2165	22-02-7163	38-00-1436	22-18-2163	22-18-2161	
17	22-02-2175	22-02-7173	38-00-1437	22-18-2173	22-18-2171	
18	22-02-2185	22-02-7183	38-00-1438	22-18-2183	22-18-2181	
19	22-02-2195	22-02-7193	38-00-1439	22-18-2193	22-18-2191	
20	22-02-2205	22-02-7203	38-00-1440	22-18-2203	22-18-2201	
21	22-02-2215	22-02-7213	38-00-1441	22-18-2213	22-18-2211	
22	22-02-2225	22-02-7223	38-00-1442	22-18-2223	22-18-2221	
23	22-02-2235	22-02-7233	38-00-1443	22-18-2233	22-18-2231	
24	22-02-2245	22-02-7243	38-00-1444	22-18-2243	22-18-2241	
25	22-02-2255	22-02-7253	38-00-1445	22-18-2253	22-18-2251	

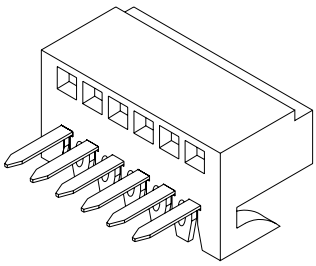
* Current rating is dependent upon PCB traces, Copper weight, solder, etc. (contact Molex for more information)

Order No.	
Polarizing Key 4161-1	15-04-9209

2.54mm (.100") Pitch KK® PC Board Connector

4455

Bottom Entry



Features and Benefits

- Sizes 2 to 25 circuits
- End-to-end stackable
- Mating header must be long enough to accommodate board thickness
- See 42625 Series for high temperature version
- Thicker board hooks available

Reference Information

Product Specification: PS-10-07
UL File No.: E29179
CSA File No.: LR19980
Mates With: 4030, 4094, 4380, 42152, 42153, 42375, 42376 and 42377 headers and .025" square pins

Electrical

Voltage: 250V
Current: 2.5A max.*
Contact Resistance: 20 milliohms max.

Mechanical

Mating Force: 199g max.
Unmating Force: 57g min.

Physical

Housing: Nylon, UL 94V-0
Contact: Brass

Circuits	Order No.				Lead-free
	Tin	Cat Ear Version	Gold	Select Gold	
2	22-14-2024	38-00-1392	22-17-2022	22-17-3022	Yes
3	22-14-2034	38-00-1393	22-17-2032	22-17-3032	
4	22-14-2044	38-00-1394	22-17-2042	22-17-3042	
5	22-14-2054	38-00-1395	22-17-2052	22-17-3052	
6	22-14-2064	38-00-1396	22-17-2062	22-17-3062	
7	22-14-2074	38-00-1397	22-17-2072	22-17-3072	
8	22-14-2084	38-00-1398	22-17-2082	22-17-3082	
9	22-14-2094	38-00-1399	22-17-2092	22-17-3092	
10	22-14-2104	38-00-1400	22-17-2102	22-17-3102	
11	22-14-2114	38-00-1401	22-17-2112	22-17-3112	
12	22-14-2124	38-00-1402	22-17-2122	22-17-3122	
13	22-14-2134	38-00-1403	22-17-2132	22-17-3132	
14	22-14-2144	38-00-1404	22-17-2142	22-17-3142	
15	22-14-2154	38-00-1405	22-17-2152	22-17-3152	
16	22-14-2164	38-00-1406	22-17-2162	22-17-3162	
17	22-14-2174	38-00-1407	22-17-2172	22-17-3172	
18	22-14-2184	38-00-1408	22-17-2182	22-17-3182	
19	22-14-2194	38-00-1409	22-17-2192	22-17-3192	
20	22-14-2204	38-00-1410	22-17-2202	22-17-3202	
21	22-14-2214	38-00-1411	22-17-2212	22-17-3212	
22	22-14-2224	38-00-1412	22-17-2222	22-17-3222	
23	22-14-2234	38-00-1413	22-17-2232	22-17-3232	
24	22-14-2244	38-00-1414	22-17-2242	22-17-3242	
25	22-14-2254	38-00-1415	22-17-2252	22-17-3252	

* Current rating is dependent upon PCB traces, Copper weight, solder, etc. (contact Molex for more information)

2.54mm (.100") Pitch Single Row Custom Headers

Features and Benefits

- Sizes 2 to 36 circuits
- Optional voided pin version for polarization to the mating part available
- Optional kinked PC tail versions are available for through hole and right angle versions
- Pick-and-place cap versions available
- Tape and reel packaging option available

Reference Information

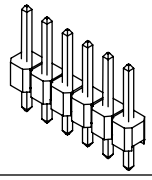
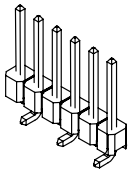
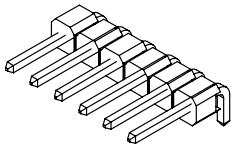
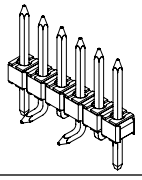
Product Specification: PS-87920-019
Packaging: Tray, tube or bag
Mates With: KK 2.54mm receptacles
Designed In: Millimeters

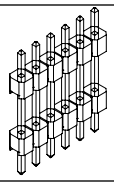
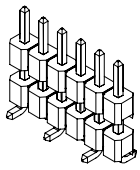
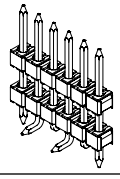
Electrical

Voltage: 250V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

Physical

Housing: Glass-filled nylon, UL94V-0
Contact: Copper Alloy, 0.64mm square
Plating: Tin, Gold Flash, 10µ" Select Gold, 15µ" Select Gold, and 30µ" Select Gold

	Single Body Options	Series
	Vertical Through Hole	87891
	Vertical SMT	87898
	Right Angle Through Hole	87897
	Through Hole Pins	68370

	Dual Body Options	Series
	Vertical Through Hole	87937
	Vertical SMT	87938
	Vertical SMT with Through Hole Pins	68372

2.54mm (.100") Pitch Dual Row Custom Headers

Features and Benefits

- Sizes 4 to 80 circuits
- Optional voided pin version for polarization to the mating part available
- Optional kinked PC tail versions are available for through hole and right angle versions
- Available with and without locating pegs
- Pick-and-place cap versions available

Reference Information

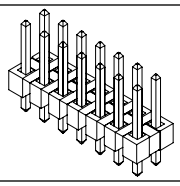
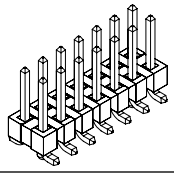
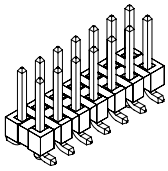
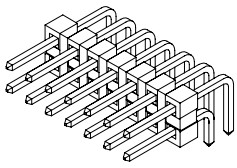
Product Specification: PS-87920-019
Packaging: Tray, tube or bag
Mates With: C-Grid 2.54mm Receptacles
Designed In: Millimeters

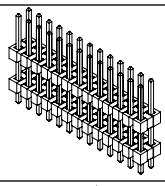
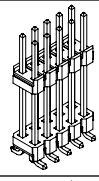
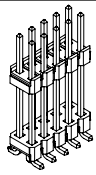
Electrical

Voltage: 250V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

Physical

Housing: Black high-temperature polyester, UL94V-0
Contact: Copper Alloy, 0.64mm square
Plating: Tin, Gold Flash, 10µ" Select Gold, 15µ" Select Gold, and 30µ" Select Gold

	Dual Body Options	Series
	Vertical Through Hole	87914
	Vertical SMT	87920
	Vertical SMT with pegs	87920
	Right Angle Through Hole	87911

	Dual Body Options	Series
	Vertical Through Hole	87797
	Vertical SMT	87939
	Vertical SMT with pegs	87939

KK® and SPOX™ Connectors

Product Overview D-2
3.96mm (.156") Pitch ..... D-3 to D-19
5.00mm (.197") Pitch ..... D-20 to D-21
5.08mm (.200") Pitch ..... D-21 to D-29
7.92mm (.312") Pitch D-30
Accessories D-31

Positive Lock Connectors

2.00/3.50mm (.118/.138") Pitch Pogo Pin Connector D-33
3.50/7.00mm (.138/.276") Pitch Wire-to-Wire and Wire-to-Board Connectors ..... D-33 to D-36
3.96/7.92mm (.156/.312") Pitch Wire-to-Board ..... D-36 to D-41

Board-In Connectors

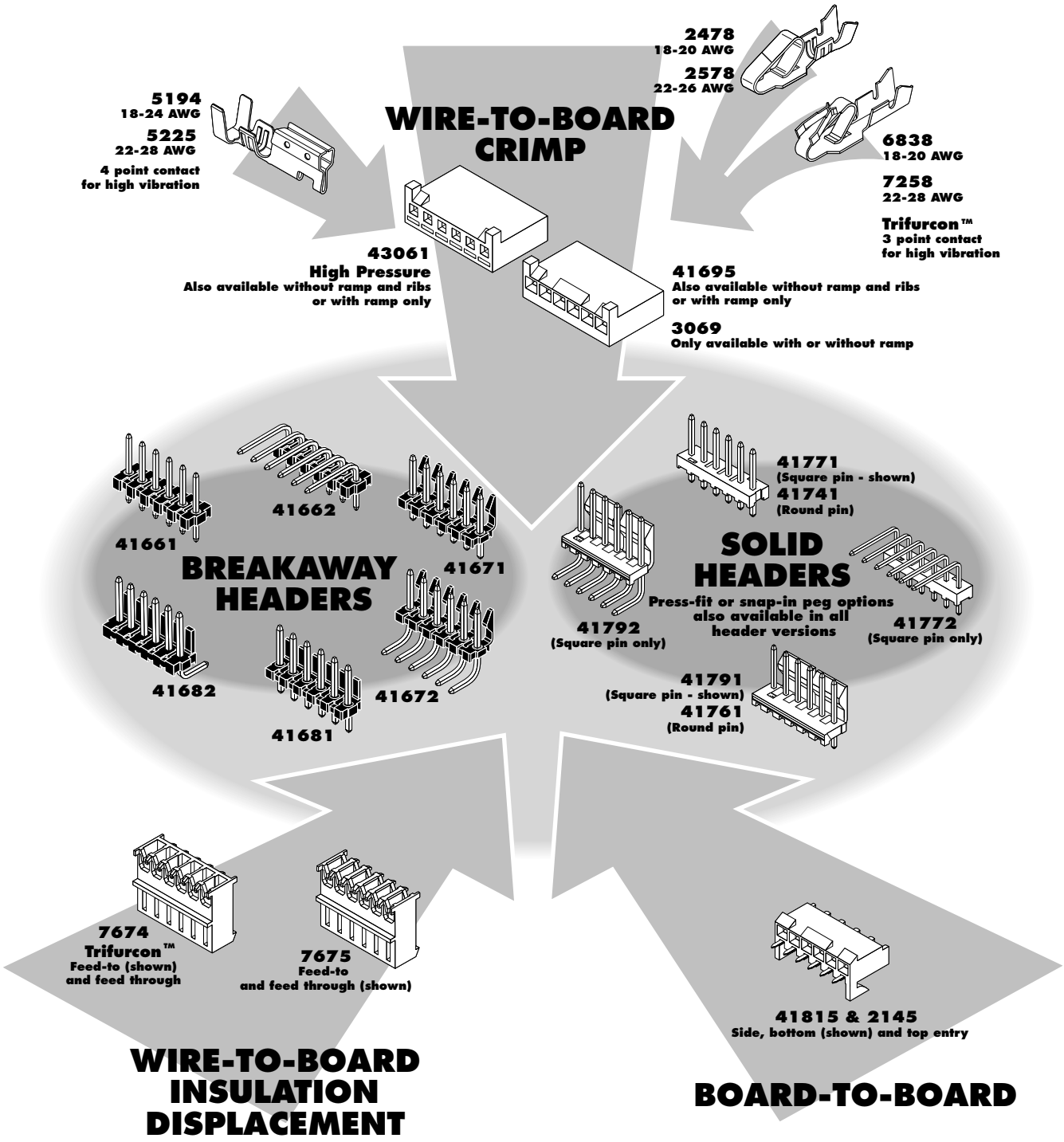
4.00mm (.158") Pitch D-42
Stand-Alone Terminals D-43
Custom Headers
- 1.27mm (.050") Pitch Single and Dual Row D-44
- 2.00mm (.079") Pitch Single and Dual Row D-45
- 2.54mm (.100") Pitch Single and Dual Row D-46
- 3.96mm (.156") Pitch Single Row D-46

IDT Connectors – Appli-Mate™ D-47

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

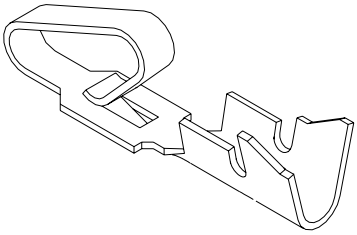
molex®
one company › a world of innovation

3.96mm (.156") Pitch KK®
Product Overview



3.96mm (.156") Pitch KK® Crimp Terminal

2478/2578



Features and Benefits

- Double cantilever design
- Single beam terminal is available for low insertion force 7821 Series (contact Molex)
- For low-level current and voltage use Gold plating
- Phosphor Bronze is recommended for rated current
- Complete line of terminal crimping equipment available (see Application Tooling section of this catalog)

Reference Information

Product Specification: PS-08-50
Tooling Information: See crimp tooling section
UL File No.: E29179
CSA File No.: LR19980
Use With: 2139, 3069 and 41695

Electrical

Voltage: 250V AC max.
Current: Max.

AWG	18	20	22	24	26
Phosphor Bronze	7.00A	6.25A	5.50A	5.00A	4.50A
Brass	5.00A	4.75A	4.50A	4.25A	4.00A

Contact Resistance: 6 milliohms max.

Mechanical

Normal Force: 0.75kg (1.65 lb) per contact
Durability: 25 cycles max.

Physical

Contact: Brass or Phosphor Bronze

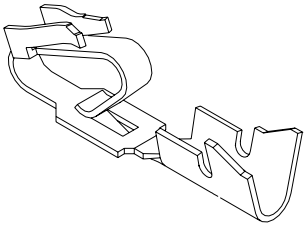
Wire Size AWG	Insulation OD	Series	Material	Order No.						Lead-free
				Tin Plating		Gold Plating No. 1		Gold Plating No. 2		
				Reel	Bag	Reel	Bag	Reel	Bag	
18-20	2.79 (.110)	max. 2478	Phosphor Bronze	08-52-0071	08-52-0072	08-58-0121	08-58-0122	08-65-0114	08-65-0115	Yes
			Brass	08-50-0105	08-50-0106	08-56-0105	08-56-0106	08-55-0103	08-55-0104	
22-26	1.65 (.065)	max. 2578	Phosphor Bronze	08-50-0133	08-50-0134	08-58-0125	08-58-0126	08-65-0116	08-65-0117	
			Brass	08-50-0107	08-50-0108	08-56-0107	08-56-0108	08-55-0105	08-55-0106	

Recommended wire range assumes stranded wire
Plating No. 1: 20µ" min. Gold in contact area with a flash overall
Plating No. 2: 15µ" min. Gold in contact area only

3.96mm (.156") Pitch KK® Crimp Terminal

6838/7258

Trifurcon™



Features and Benefits

- Complete line of terminal crimping equipment available (see Application Tooling section of this catalog)
- Accommodates 18 to 26 AWG
- Trifurcon design provides 3 distinct points of contact
- Ideal choice where high shock or vibration exists
- For low current/voltage, Gold is recommended
- Phosphor Bronze recommended for rated current

Reference Information

Product Specification: PS-40-02
Tooling Information: See crimp tooling section
Use With: 6442 and 41695 crimp terminal housings

Electrical

Voltage: 250V AC max.
Current: Max.

AWG	18	20	22	24	26
Phosphor Bronze	7.00A	6.25A	5.50A	5.00A	4.50A
Brass	5.00A	4.75A	4.50A	4.25A	4.00A

Contact Resistance: 6 milliohms max.

Mechanical

Normal Force: 0.75kg (1.65 lb) per contact
Durability: 25 cycles max.

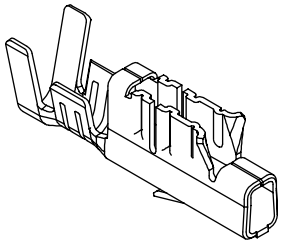
Physical

Contact: Brass or Phosphor Bronze

Wire Size AWG	Insulation OD	Series	Material	Order No.						Lead-free
				Tin Plating		Gold Plating		Select Gold Plating		
				Reel	Bag	Reel	Bag	Reel	Bag	
18-20	2.79 (.110) max.	6838	Phosphor Bronze	08-52-0112	08-52-0113	08-58-0187	08-58-0189	08-58-0110	08-58-0111	Yes
			Brass	08-50-0187	08-50-0189					
22-26	1.65 (.065) max.	7258	Phosphor Bronze	08-52-0124	08-52-0125	08-56-0123	08-56-0124	08-65-0121	08-65-0122	
			Brass	08-50-0183	08-50-0185					

3.96mm (1.56") Pitch KK® Wire-to-Board Crimp Terminal

45570



Features and Benefits
- Four independent points of contact
- Two additional sacrificial contacts

Reference Information
Product Specification: PS-45570-001
Mates With: 3.96mm headers
Use With: 41695 and 6442 series

Electrical
Voltage: 600V
Current: 13.0A—see applicable product specification
Contact Resistance: 10 milliohms max.

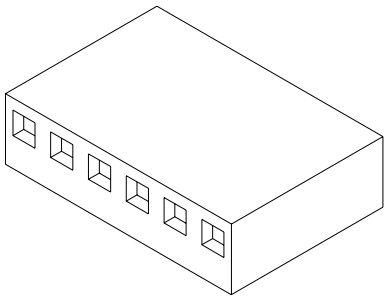
Mechanical
Mating Force: 8.89N max. per contact
Unmating Force: 2.20N min. per contact
Normal Force: 0.97N min. per contact—see applicable product specification
Durability: 25 cycles

Physical
Contact: Copper Alloy
Wire Gauge: 18 to 20 AWG

Order No.	Plating	Packaging	Lead-free
45570-3000	Tin-Preplate	Reel	Yes
45570-3050	Tin-Preplate	Bag	
45570-3002	Tin over Nickel Postplate	Reel	
45570-3052	Tin over Nickel Postplate	Bag	
45570-3004	30µ" Select Gold	Reel	
45570-3054	30µ" Select Gold	Bag	

3.96mm (.156") Pitch KK® Crimp Terminal Housing Receptacle

41695



Features and Benefits
- Sizes 2 to 20 circuits
- Locking ramp feature available
- Polarizing rib feature available for side-to-side polarization
- Offset pin entry holes provide 180˚ polarization
- Accepts entire line of .156" contacts
- Optional voids available

Reference Information
Product Specification: PS-08-50
UL File No.: E29179
CSA File No.: LR19980
Mates With: Molex KK 3.96mm (.156") pitch headers or 1.14mm (.045") pins
Use With: 2478, 2578, 6838 and 7258 terminals

Mechanical
Locking: Passive, none

Physical
Housing: Glass-filled polyester, UL 94V-0

Circuits	Order No.		
	With Locking Ramp and Polarizing Ribs	Without Locking Ramp or Polarizing Ribs	With Locking Ramp Only
2	09-50-8023	09-50-8020	09-50-8021
3	09-50-8033	09-50-8030	09-50-8031
4	09-50-8043	09-50-8040	09-50-8041
5	09-50-8053	09-50-8050	09-50-8051
6	09-50-8063	09-50-8060	09-50-8061
7	09-50-8073	09-50-8070	09-50-8071
8	09-50-8083	09-50-8080	09-50-8081
9	09-50-8093	09-50-8090	09-50-8091
10	09-50-8103	09-50-8100	09-50-8101
11	09-50-8113	09-50-8110	09-50-8111

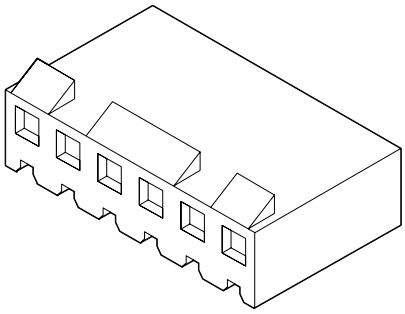
Circuits	Order No.		
	With Locking Ramp and Polarizing Ribs	Without Locking Ramp or Polarizing Ribs	With Locking Ramp Only
12	09-50-8123	09-50-8120	09-50-8121
13	09-50-8133	09-50-8130	09-50-8131
14	09-50-8143	09-50-8140	09-50-8141
15	09-50-8153	09-50-8150	09-50-8151
16	09-50-8163	09-50-8160	09-50-8161
17	09-50-8173	09-50-8170	09-50-8171
18	09-50-8183	09-50-8180	09-50-8181
19	09-50-8193	09-50-8190	09-50-8191
20	09-50-8203	09-50-8200	09-50-8201

Note: When mating polarizing rib version with breakaway friction lock header or polarizing wall series, the end friction lock or polarizing wall of header must be removed.

Order No.	
Polarizing Key	15-04-0297

3.96mm (.156") Pitch KK® Crimp Terminal Housing

2139



Features and Benefits
- Sizes 2 to 24 circuits
- Locking ramp available
- Molded void options available
- Standard ramp options available
- Polarizing pegs and keys available
- End-to-end stackable

Reference Information
Product Specification: PS-08-50
UL File No.: E29179
CSA File No.: LR19980
Mates With: Molex KK 3.96mm (.156") pitch headers or 1.14mm (.045") pins
Use With: 2478 and 2578

Mechanical
Locking: Passive, none

Physical
Housing: Nylon, UL 94V-2 (see 41695 for UL 94V-0 polyester)

Circuits	Order No.	
	Without Locking Ramp	With Locking Ramp
2	09-50-7021	09-50-3021
3	09-50-7031	09-50-3031
4	09-50-7041	09-50-3041
5	09-50-7051	09-50-3051
6	09-50-7061	09-50-3061
7	09-50-7071	09-50-3071
8	09-50-7081	09-50-3081
9	09-50-7091	09-50-3091

Circuits	Order No.	
	Without Locking Ramp	With Locking Ramp
10	09-50-7101	09-50-3101
11	09-50-7111	09-50-3111
12	09-50-7121	09-50-3121
13	09-50-7131	09-50-3131
14	09-50-7141	09-50-3141
15	09-50-7151	09-50-3151
16	09-50-7161	09-50-3161
17	09-50-7171	09-50-3171

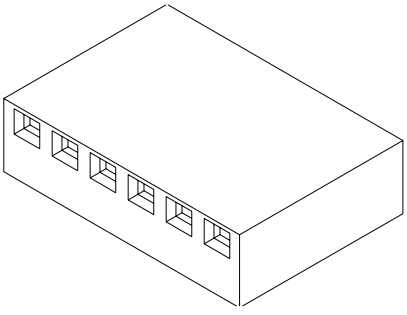
Circuits	Order No.	
	Without Locking Ramp	With Locking Ramp
18	09-50-7181	09-50-3181
19	09-50-7191	09-50-3191
20	09-50-7201	09-50-3201
21	09-50-7211	09-50-3211
22	09-50-7221	09-50-3221
23	09-50-7231	09-50-3231
24	09-50-7241	09-50-3241

Order No.	
Polarizing Key	Polarizing Peg
15-04-0219	15-04-0220

Note: Use 41695 for .100" and over insulation diameter wire

3.96mm (.156") Pitch KK® Crimp Terminal Housing

6442
Use with Trifurcon™ Terminals



Features and Benefits
- Sizes 2 to 24 circuits
- Available with voided circuits in various locations
- Polarizing keys and pegs available
- Offset pin entry holes provide 180° polarization

Reference Information
Product Specification: PS-40-02
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: R75108
Mates With: Molex KK 3.96mm (.156") pitch headers or 1.14mm (.045") pins
Use With: 6838 and 7258 Trifurcon terminals

Mechanical
Locking: Passive

Physical
Housing: Nylon, UL 94V-2 (see 41695 for polyester, 94V-0)

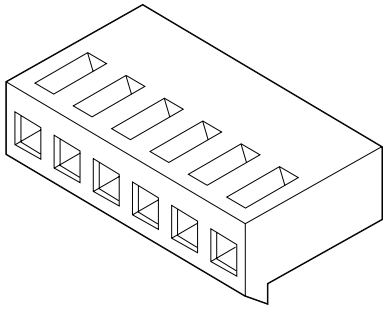
Circuits	Order No.	
	With Ramp	Without Ramp
2	26-03-4020	26-03-3021
3	26-03-4030	26-03-3031
4	26-03-4041	26-03-3041
5	26-03-4050	26-03-3051
6	26-03-4061	26-03-3061
7	26-03-4070	26-03-3071
8	26-03-4081	26-03-3081
9	26-03-4090	26-03-3091

Circuits	Order No.	
	With Ramp	Without Ramp
10	26-03-4101	26-03-3101
11	26-03-4111	26-03-3111
12	26-03-4121	26-03-3121
13	26-03-4131	26-03-3131
14	26-03-4141	26-03-3141
15	26-03-4151	26-03-3151
16	26-03-4161	26-03-3161
17	26-03-4171	26-03-3171

Circuits	Order No.	
	With Ramp	Without Ramp
18	26-03-4181	26-03-3181
19	26-03-4191	26-03-3191
20	26-03-4201	26-03-3201
21	26-03-4211	26-03-3211
22	26-03-4221	26-03-3221
23	26-03-4231	26-03-3231
24	26-03-4241	26-03-3241

3.96mm (.156") Pitch KK® Wire-to-Board Crimp Terminal Housing

3069



Features and Benefits
- Sizes 2 to 20 circuits
- With or without locking ramp

Reference Information
Product Specification: PS-08-50
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2220, 3190, 3192, 3243, 3246, A4042, 41661, 41662, 41671, 41672, 41681, 41682, 41701, 41711, 41721, 41741, 41761, 41771, 41772, 41791, 41792, 42441, 42461, 42471, 42491 and 42492
Use With: Molex double cantilever crimp terminals

Mechanical
Locking: Passive, none

Physical
Housing: Nylon, UL 94V-2

Circuits	Order No.	
	Without Locking Ramp	With Locking Ramp
2	09-92-0200	09-91-0200
3	09-92-0300	09-91-0300
4	09-92-0400	09-91-0400
5	09-92-0500	09-91-0500
6	09-92-0600	09-91-0600
7	09-92-0700	09-91-0700
8	09-92-0800	09-91-0800

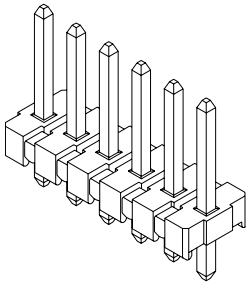
Circuits	Order No.	
	Without Locking Ramp	With Locking Ramp
9	09-92-0900	09-91-0900
10	09-92-1000	09-91-1000
11	09-92-1100	09-91-1100
12	09-92-1200	09-91-1200
13	09-92-1300	09-91-1300
14	09-92-1400	09-91-1400
15	09-92-1500	09-91-1500

Circuits	Order No.	
	Without Locking Ramp	With Locking Ramp
16	09-92-1600	09-91-1600
17	09-92-1700	09-91-1700
18	09-92-1800	09-91-1800
19	09-92-1900	09-91-1900
20	09-92-2000	09-91-2000

Order No.	
Polarizing Key	Polarizing Peg
15-04-0219	15-04-0220

3.96mm (.156") Pitch KK® Breakaway Header

41661
Vertical



Features and Benefits
- Sizes 2 to 24 circuits available
- Optional voided circuits available (contact Molex)
- Various pin lengths available (contact Molex)
- May be purchased in full 24 circuit sticks and broken into required circuit sizes

Reference Information
Product Specification: PS-41186/08-50
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: R75108
Mates With: .2139, 2145, 6442, 7674, 7675, 41695 and 41815

Electrical
Voltage: 250V AC max.
Current: 7.0A max.*
Contact Resistance: 6 milliohms max.

Mechanical
Durability: Tin—25 cycles max.
Gold—100 cycles max.

Physical
Housing: Polyester, UL 94V-0
Contact: Brass, 1.14mm (.045") pins

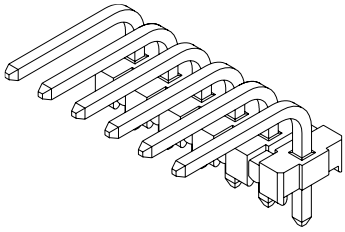
Circuits	Order No.			Lead-free
	Tin	15µ" Select Gold	30µ" Select Gold	
2	26-48-1021	41661-0001	41661-0024	Yes
3	26-48-1031	41661-0002	41661-0025	
4	26-48-1041	41661-0003	41661-0026	
5	26-48-1051	41661-0004	41661-0027	
6	26-48-1061	41661-0005	41661-0028	
7	26-48-1071	41661-0006	41661-0029	
8	26-48-1081	41661-0007	41661-0030	
9	26-48-1091	41661-0008	41661-0031	
10	26-48-1101	41661-0009	41661-0032	
11	26-48-1111	41661-0010	41661-0033	
12	26-48-1121	41661-0011	41661-0034	
13	26-48-1131	41661-0012	41661-0035	

Circuits	Order No.			Lead-free
	Tin	15µ" Select Gold	30µ" Select Gold	
14	26-48-1141	41661-0013	41661-0036	Yes
15	26-48-1151	41661-0014	41661-0037	
16	26-48-1161	41661-0015	41661-0038	
17	26-48-1171	41661-0016	41661-0039	
18	26-48-1181	41661-0017	41661-0040	
19	26-48-1191	41661-0018	41661-0041	
20	26-48-1201	41661-0019	41661-0042	
21	26-48-1211	41661-0020	41661-0043	
22	26-48-1221	41661-0021	41661-0044	
23	26-48-1231	41661-0022	41661-0045	
24	26-48-1241	41661-0023	41661-0046	

* Dependent upon connector and PC board

3.96mm (.156") Pitch KK® Breakaway Header

41662
Right Angle



Features and Benefits
- Sizes 2 to 24 circuits available
- Optional voided circuits available (contact Molex)
- Various pin lengths available (contact Molex)
- May be purchased in full 24 circuit sticks and broken into required circuit sizes

Reference Information
Product Specification: PS-41186/08-50
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: R75108
Mates With: 2139, 2145, 6442, 7674, 7675, 41695 and 41815

Electrical
Voltage: 250V AC max.
Current: 7.0A max.*
Contact Resistance: 6 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 50,000 Megohms min.

Mechanical
Durability: Tin—25 cycles max.
Gold—100 cycles max.

Physical
Housing: Glass-filled polyester, UL 94V-0
Contact: Brass

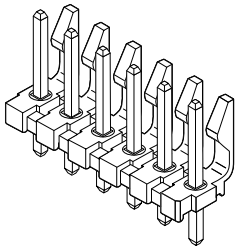
Circuits	Order No.			
	Square Pin			
	Tin	15µ" Select Gold	30µ" Select Gold	Overall Gold
2	26-48-1022	41662-0001	41662-0024	26-48-2022
3	26-48-1032	41662-0002	41662-0025	26-48-2032
4	26-48-1042	41662-0003	41662-0026	26-48-2042
5	26-48-1052	41662-0004	41662-0027	26-48-2052
6	26-48-1062	41662-0005	41662-0028	26-48-2062
7	26-48-1072	41662-0006	41662-0029	26-48-2072
8	26-48-1082	41662-0007	41662-0030	26-48-2082
9	26-48-1092	41662-0008	41662-0031	26-48-2092
10	26-48-1102	41662-0009	41662-0032	26-48-2102
11	26-48-1112	41662-0010	41662-0033	26-48-2112
12	26-48-1122	41662-0011	41662-0034	26-48-2122
13	26-48-1132	41662-0012	41662-0035	26-48-2132

Circuits	Order No.			
	Square Pin			
	Tin	15µ" Select Gold	30µ" Select Gold	Overall Gold
14	26-48-1142	41662-0013	41662-0036	26-48-2142
15	26-48-1152	41662-0014	41662-0037	26-48-2152
16	26-48-1162	41662-0015	41662-0038	26-48-2162
17	26-48-1172	41662-0016	41662-0039	26-48-2172
18	26-48-1182	41662-0017	41662-0040	26-48-2182
19	26-48-1192	41662-0018	41662-0041	26-48-2192
20	26-48-1202	41662-0019	41662-0042	26-48-2202
21	26-48-1212	41662-0020	41662-0043	26-48-2212
22	26-48-1222	41662-0021	41662-0044	26-48-2222
23	26-48-1232	41662-0022	41662-0045	26-48-2232
24	26-48-1242	41662-0023	41662-0046	26-48-2242

* Dependent upon connector and PC board
Note: Circuit number designation is for ordering purposes only, check corresponding circuit designation on mating connector

3.96mm (.156") Pitch KK® Breakaway Header

41671/41711
Vertical, Friction Lock



Features and Benefits
- Sizes 2 to 24 circuits available
- Optional voided circuits available
- Various pin lengths available (contact Molex)
- May be purchased in full 24 circuit sticks and broken into required circuit sizes
- Passive locking feature is used to maintain interconnection and is ideal for high vibration applications

Reference Information
Product Specification: PS-41186/08-50
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: R75108
Mates With: 2139, 2145, 3069, 3215, 6442, 7674, 7675, 41695 and 41815

Electrical
Voltage: 250V AC max.
Current: 7.0A max.*
Contact Resistance: 6 milliohms max.

Mechanical
Durability: Tin—25 cycles max.
Gold—100 cycles max.

Physical
Housing: Polyester, UL 94V-0
Contact: Brass

Circuits	Order No.					Lead-free
	Square Pin			Round Pin		
	Tin	15µ" Select Gold	30µ" Select Gold	Tin	Overall Gold	
2	26-48-1025	41671-0001	41671-0024	26-51-0022	26-51-2022	Yes
3	26-48-1035	41671-0002	41671-0025	26-51-0032	26-51-2032	
4	26-48-1045	41671-0003	41671-0026	26-51-0042	26-51-2042	
5	26-48-1055	41671-0004	41671-0027	26-51-0052	26-51-2052	
6	26-48-1065	41671-0005	41671-0028	26-51-0062	26-51-2062	
7	26-48-1075	41671-0006	41671-0029	26-51-0072	26-51-2072	
8	26-48-1085	41671-0007	41671-0030	26-51-0082	26-51-2082	
9	26-48-1095	41671-0008	41671-0031	26-51-0092	26-51-2092	
10	26-48-1105	41671-0009	41671-0032	26-51-0102	26-51-2102	
11	26-48-1115	41671-0010	41671-0033	26-51-0112	26-51-2112	
12	26-48-1125	41671-0011	41671-0034	26-51-0122	26-51-2122	
13	26-48-1135	41671-0012	41671-0035	26-51-0132	26-51-2132	

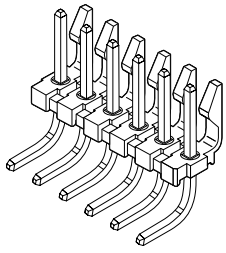
Circuits	Order No.					Lead-free
	Square Pin			Round Pin		
	Tin	15µ" Select Gold	30µ" Select Gold	Tin	Overall Gold	
14	26-48-1145	41671-0013	41671-0036	26-51-0142	26-51-2142	Yes
15	26-48-1155	41671-0014	41671-0037	26-51-0152	26-51-2152	
16	26-48-1165	41671-0015	41671-0038	26-51-0162	26-51-2162	
17	26-48-1175	41671-0016	41671-0039	26-51-0172	26-51-2172	
18	26-48-1185	41671-0017	41671-0040	26-51-0182	26-51-2182	
19	26-48-1195	41671-0018	41671-0041	26-51-0192	26-51-2192	
20	26-48-1205	41671-0019	41671-0042	26-51-0202	26-51-2202	
21	26-48-1215	41671-0020	41671-0043	26-51-0212	26-51-2212	
22	26-48-1225	41671-0021	41671-0044	26-51-0222	26-51-2222	
23	26-48-1235	41671-0022	41671-0045	26-51-0232	26-51-2232	
24	26-48-1245	41671-0023	41671-0046	26-51-0242	26-51-2242	

* Dependent upon connector and PC board

3.96mm (.156") Pitch KK® Breakaway Header

41672

Right Angle, Friction Lock



Features and Benefits

- Sizes 2 to 24 circuits available
- Optional voided circuits available (contact Molex)
- Various pin lengths available (contact Molex)
- PCB edge mount only
- May be purchased in full 24 circuit sticks and broken into required circuit sizes

Reference Information

Product Specification: PS-41186/08-50
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: R75108
Mates With: 2139, 2145, 3069, 3215, 6442, 7674, 7675, 41695 and 41815

Electrical

Voltage: 250V
Current: 7.0A
Contact Resistance: 6 milliohms max.

Mechanical

Durability: Tin—25 cycles max.
Gold—100 cycles max.

Physical

Housing: Polyester, UL 94V-0
Contact: Brass

Circuits	Order No.				Lead-free
	Tin	15µ" Select Gold	30µ" Select Gold	Overall Gold	
2	26-48-1026	41672-0001	41672-0024	26-48-2026	Yes
3	26-48-1036	41672-0002	41672-0025	26-48-2036	
4	26-48-1046	41672-0003	41672-0026	26-48-2046	
5	26-48-1056	41672-0004	41672-0027	26-48-2056	
6	26-48-1066	41672-0005	41672-0028	26-48-2066	
7	26-48-1076	41672-0006	41672-0029	26-48-2076	
8	26-48-1086	41672-0007	41672-0030	26-48-2086	
9	26-48-1096	41672-0008	41672-0031	26-48-2096	
10	26-48-1106	41672-0009	41672-0032	26-48-2106	
11	26-48-1116	41672-0010	41672-0033	26-48-2116	
12	26-48-1126	41672-0011	41672-0034	26-48-2126	
13	26-48-1136	41672-0012	41672-0035	26-48-2136	

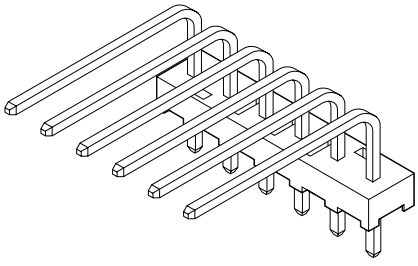
Circuits	Order No.				Lead-free
	Tin	15µ" Select Gold	30µ" Select Gold	Overall Gold	
14	26-48-1146	41672-0013	41672-0036	26-48-2146	Yes
15	26-48-1156	41672-0014	41672-0037	26-48-2156	
16	26-48-1166	41672-0015	41672-0038	26-48-2166	
17	26-48-1176	41672-0016	41672-0039	26-48-2176	
18	26-48-1186	41672-0017	41672-0040	26-48-2186	
19	26-48-1196	41672-0018	41672-0041	26-48-2196	
20	26-48-1206	41672-0019	41672-0042	26-48-2206	
21	26-48-1216	41672-0020	41672-0043	26-48-2216	
22	26-48-1226	41672-0021	41672-0044	26-48-2226	
23	26-48-1236	41672-0022	41672-0045	26-48-2236	
24	26-48-1246	41672-0023	41672-0046	26-48-2246	

Circuit number designation is for ordering purposes only, check corresponding circuit designation on mating connector

3.96mm (.156") Pitch KK® Solid Header

41772

Right Angle Without Pegs



Features and Benefits

- Sizes 2 to 18 circuits
- Optional voided circuits available (contact Molex)
- Various pin lengths available (contact Molex)
- End-to-end stackable

Reference Information

Product Specification: PS-08-50
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: R75108
Mates With: 2139, 2145, 3069, 6442, 7674, 7675, 41695 and 41815

Electrical

Voltage: 250V
Current: 7.0A
Contact Resistance: 6 milliohms max.

Mechanical

Durability:
Tin—25 cycles max.
Gold—100 cycles max.

Physical

Housing: Polyester, UL 94V-0
Contact: Brass

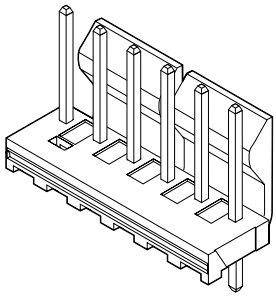
Circuits	Order No.			
	Tin	15µ" Select Gold	30µ" Select Gold	Overall Gold
2	26-60-3020	41772-0463	41772-0480	26-61-3020
3	26-60-3030	41772-0464	41772-0481	26-61-3030
4	26-60-3040	41772-0465	41772-0482	26-61-3040
5	26-60-3050	41772-0466	41772-0483	26-61-3050
6	26-60-3060	41772-0467	41772-0484	26-61-3060
7	26-60-3070	41772-0468	41772-0485	26-61-3070
8	26-60-3080	41772-0469	41772-0486	26-61-3080
9	26-60-3090	41772-0470	41772-0487	26-61-3090
10	26-60-3100	41772-0471	41772-0488	26-61-3100

Circuits	Order No.			
	Tin	15µ" Select Gold	30µ" Select Gold	Overall Gold
11	26-60-3110	41772-0472	41772-0489	26-61-3110
12	26-60-3120	41772-0473	41772-0490	26-61-3120
13	26-60-3130	41772-0474	41772-0491	26-61-3130
14	26-60-3140	41772-0475	41772-0492	26-61-3140
15	26-60-3150	41772-0476	41772-0493	26-61-3150
16	26-60-3160	41772-0477	41772-0494	26-61-3160
17	26-60-3170	41772-0478	41772-0495	26-61-3170
18	26-60-3180	41772-0479	41772-0496	26-61-3180

Circuit number designation is for ordering purposes only, check corresponding circuit designation on mating connector

3.96mm (.156") Pitch KK® Solid Header

41791
Vertical, Friction Lock



Features and Benefits
- Sizes 2 to 18 circuits
- Provides left to right polarization when mated with 41695 or 43061 .156" crimp housing with the optional polarizing ribs
- Various pin lengths available
- Voided circuits available (contact Molex)
- Passive locking feature is used to maintain interconnection, ideal for high vibration applications
- End-to-end stackable

Reference Information
Product Specification: PS-08-50
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: R75108
Mates With: 2139, 2145, 3069, 6442, 7674, 7675, 41695 and 41815

Electrical
Voltage: 250V
Current: 7.0A
Contact Resistance: 6 milliohms max.

Mechanical
Durability: Tin—25 cycles max.
Gold—100 cycles max.

Physical
Housing: Polyester, UL 94V-0
Contact: Brass

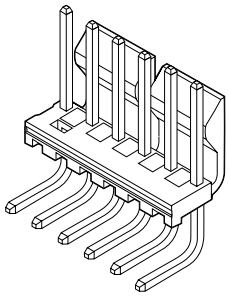
Circuits	Order No.				Lead-free
	Tin	15µ" Select Gold	30µ" Select Gold	Overall Gold	
2	26-60-4020	41791-0832	41791-0849	26-61-4020	Yes
3	26-60-4030	41791-0833	41791-0850	26-61-4030	
4	26-60-4040	41791-0834	41791-0851	26-61-4040	
5	26-60-4050	41791-0835	41791-0852	26-61-4050	
6	26-60-4060	41791-0836	41791-0853	26-61-4060	
7	26-60-4070	41791-0837	41791-0854	26-61-4070	
8	26-60-4080	41791-0838	41791-0855	26-61-4080	
9	26-60-4090	41791-0839	41791-0856	26-61-4090	
10	26-60-4100	41791-0840	41791-0857	26-61-4100	

Circuits	Order No.				Lead-free
	Tin	15µ" Select Gold	30µ" Select Gold	Overall Gold	
11	26-60-4110	41791-0841	41791-0858	26-61-4110	Yes
12	26-60-4120	41791-0842	41791-0859	26-61-4120	
13	26-60-4130	41791-0843	41791-0860	26-61-4130	
14	26-60-4140	41791-0844	41791-0861	26-61-4140	
15	26-60-4150	41791-0845	41791-0862	26-61-4150	
16	26-60-4160	41791-0846	41791-0863	26-61-4160	
17	26-60-4170	41791-0847	41791-0864	26-61-4170	
18	26-60-4180	41791-0848	41791-0865	26-61-4180	

Circuit number designation is for ordering purposes only, check corresponding circuit designation on mating connector

3.96mm (.156") Pitch KK® Solid Header

41792
Right Angle, Friction Lock



Features and Benefits
- Sizes 2 to 18 circuits
- Provides left to right polarization when mated with 41695 or 43061 .156" crimp housing with the optional polarizing ribs
- Various pin lengths available (contact Molex)
- Optional voided circuits available
- End-to-end stackable

Reference Information
Product Specification: PS-08-50
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: R75108
Mates With: 2139, 2145, 3069, 6442, 7674, 7675, 41695 and 41815

Electrical
Voltage: 250V
Current: 7.0A
Contact Resistance: 6 milliohms max.

Mechanical
Durability: Tin—25 cycles max.
Gold—100 cycles max.

Physical
Housing: Polyester, UL 94V-0
Contact: Brass

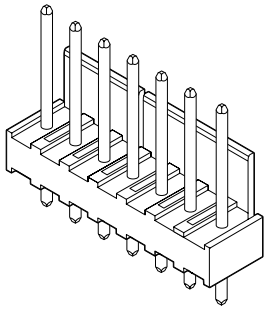
Circuits	Order No.				Lead-free
	Tin	15µ" Select Gold	30µ" Select Gold	Overall Gold	
2	26-60-5020	41792-0511	41792-0528	26-61-5020	Yes
3	26-60-5030	41792-0512	41792-0529	26-61-5030	
4	26-60-5040	41792-0513	41792-0530	26-61-5040	
5	26-60-5050	41792-0514	41792-0531	26-61-5050	
6	26-60-5060	41792-0515	41792-0532	26-61-5060	
7	26-60-5070	41792-0516	41792-0533	26-61-5070	
8	26-60-5080	41792-0517	41792-0534	26-61-5080	
9	26-60-5090	41792-0518	41792-0535	26-61-5090	
10	26-60-5100	41792-0519	41792-0536	26-61-5100	

Circuits	Order No.				Lead-free
	Tin	15µ" Select Gold	30µ" Select Gold	Overall Gold	
11	26-60-5110	41792-0520	41792-0537	26-61-5110	Yes
12	26-60-5120	41792-0521	41792-0538	26-61-5120	
13	26-60-5130	41792-0522	41792-0539	26-61-5130	
14	26-60-5140	41792-0523	41792-0540	26-61-5140	
15	26-60-5150	41792-0524	41792-0541	26-61-5150	
16	26-60-5160	41792-0525	41792-0542	26-61-5160	
17	26-60-5170	41792-0526	41792-0543	26-61-5170	
18	26-60-5180	41792-0527	41792-0544	26-61-5180	

Circuit number designation is for ordering purposes only, check corresponding circuit designation on mating connector

3.96mm (.156") Pitch KK® Header

3190
Vertical, Round Pin Polarizing Wall



Features and Benefits
- Sizes 2 to 20 circuits

Reference Information
Product Specification: PS-08-50
UL File No.: E29179
CSA File No.: LR19980
Mates With: Molex .156" connectors

Electrical
Voltage: 250V
Current: 7.0A
Contact Resistance: 20 milliohms max.

Mechanical
Mating Force: 24 oz max. per contact
Unmating Force: 4 oz min. per contact
Normal Force: 350g
Durability: Tin—25 cycles
Gold—50 cycles

Physical
Housing: Nylon, UL 94V-0
Contact: Brass

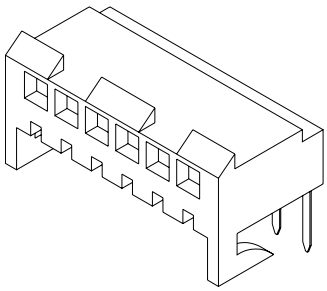
Circuits	Order No.		Lead-free
	Tin	Gold	
2	26-19-2021	26-22-2021	Yes
3	26-19-2031	26-22-2031	
4	26-19-2041	26-22-2041	
5	26-19-2051	26-22-2051	
6	26-19-2061	26-22-2061	
7	26-19-2071	26-22-2071	
8	26-19-2081	26-22-2081	

Circuits	Order No.		Lead-free
	Tin	Gold	
9	26-19-2091	26-22-2091	Yes
10	26-19-2101	26-22-2101	
11	26-19-2111	26-22-2111	
12	26-19-2121	26-22-2121	
13	26-19-2131	26-22-2131	
14	26-19-2141	26-22-2141	
15	26-19-2151	26-22-2151	

Circuits	Order No.		Lead-free
	Tin	Gold	
16	26-19-2161	26-22-2161	Yes
17	26-19-2171	26-22-2171	
18	26-19-2181	26-22-2181	
19	26-19-2191	26-22-2191	
20	26-19-2201	26-22-2201	

3.96mm (.156") Pitch KK® PC Board Connector

41815
Right Angle



Features and Benefits
- Sizes 2 to 15 circuits
- Large lead-in chamfers
- Side entry mount
- Polarizing key available
- Various tail lengths available
- Single beam available for low insertion force

Reference Information
Product Specification: PS-08-50
UL File No.: E29179
CSA File No.: LR19980
Mates With: Molex KK 3.96mm (.156") locking headers or 1.14mm (.045") pins

Electrical
Voltage:
250V AC max.
Current: 5.0A max.* per contact
Contact Resistance: 6 milliohms max.

Physical
Housing: Polyester, UL 94V-0
Contact: Brass or Phosphor Bronze

Circuits	Order No.		Lead-free
	Tin	Select Gold	
2	09-48-1024	09-48-3025	Yes
3	09-48-1034	09-48-3035	
4	09-48-1044	09-48-3045	
5	09-48-1054	09-48-3055	
6	09-48-1064	09-48-3065	
7	09-48-1074	09-48-3075	
8	09-48-1084	09-48-3085	

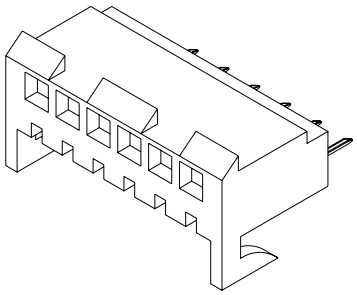
Circuits	Order No.		Lead-free
	Tin	Select Gold	
9	09-48-1094	09-48-3095	Yes
10	09-48-1104	09-48-3105	
11	09-48-1114	09-48-3115	
12	09-48-1124	09-48-3125	
13	09-48-1134	09-48-3135	
14	09-48-1144	09-48-3145	
15	09-48-1154	09-48-3155	

* Dependent upon PC board

Order No.	
Polarizing Key	15-04-0297

3.96mm (.156") Pitch KK® PC Board Connector

41815
Top Entry



Features and Benefits
- Sizes 2 to 15 circuits
- Large lead-in chamfers
- Top entry mount
- Available with hooks removed (contact Molex)
- Polarizing key available
- Kinked terminal option available, and single beam available for low insertion force

Reference Information
Product Specification: PS-08-50
UL File No.: E29179
CSA File No.: LR19980
Mates With: Molex KK 3.96mm (.156") locking headers or 1.14mm (.045") staked pins

Electrical
Voltage: 250V AC max.
Current: 5.0A max.*
Contact Resistance: 6 milliohms max.

Physical
Housing: Polyester, UL 94V-0
Contact: Brass or Phosphor Bronze

Circuits	Order No.		Lead-free
	Tin	Select Gold	
2	09-48-4028	09-48-3026	Yes
3	09-48-4038	09-48-3036	
4	09-48-4048	09-48-3046	
5	09-48-4058	09-48-3056	
6	09-48-4068	09-48-3066	
7	09-48-4078	09-48-3076	
8	09-48-4088	09-48-3086	

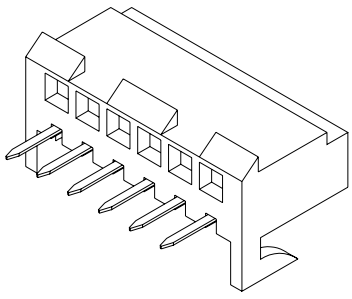
Circuits	Order No.		Lead-free
	Tin	Select Gold	
9	09-48-4098	09-48-3096	Yes
10	09-48-4108	09-48-3106	
11	09-48-4118	09-48-3116	
12	09-48-4128	09-48-3126	
13	09-48-4138	09-48-3136	
14	09-48-4148	09-48-3146	
15	09-48-4158	09-48-3156	

* Dependent upon PC board

Order No.	
Polarizing Key	15-04-0297

3.96mm (.156") Pitch KK® PC Board Connector

41815
Bottom Entry



Features and Benefits
- Sizes 2 to 15 circuits
- Large lead-in chamfers
- Bottom entry mount
- Polarizing key available
- Mating headers must be long enough to accommodate board thickness

Reference Information
Product Specification: PS-08-50
UL File No.: E29179
CSA File No.: LR19980
Mates With: Molex KK 3.96mm (.156") locking headers or 1.14mm (.045") staked pins

Electrical
Voltage: 250V AC max.
Current: 5.0A max.*
Contact Resistance: 6 milliohms max.

Physical
Housing: Polyester, UL 94V-0
Contact: Brass or Phosphor Bronze

Circuits	Order No.		Lead-free
	Tin	Select Gold	
2	09-48-4029	09-48-3024	Yes
3	09-48-4039	09-48-3034	
4	09-48-4049	09-48-3044	
5	09-48-4059	09-48-3054	
6	09-48-4069	09-48-3064	
7	09-48-4079	09-48-3074	
8	09-48-4089	09-48-3084	

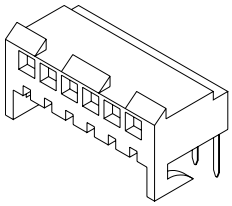
Circuits	Order No.		Lead-free
	Tin	Select Gold	
9	09-48-4099	09-48-3094	Yes
10	09-48-4109	09-48-3104	
11	09-48-4119	09-48-3114	
12	09-48-4129	09-48-3124	
13	09-48-4139	09-48-3134	
14	09-48-4149	09-48-3144	
15	09-48-4159	09-48-3154	

* Dependent upon PC board

Order No.	
Polarizing Key	15-04-0297

3.96mm (.156") Pitch KK® PC Board Connector

2145/3215
Right Angle



Features and Benefits
- Sizes 2 to 15 circuits
- Polarizing key and peg available
- Various pin lengths available
- Single beam available for low insertion force

Reference Information
Packaging: Bag or tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: Molex KK 3.96mm (.156") locking headers or 1.14mm (.045") pins
Designed In: Inches

Electrical
Voltage: 250V AC max.
Current: 5.0A max.*
Contact Resistance: 6 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 50K Megohms min.

Physical
Housing: Nylon, UL 94V-2
(see 41815 for polyester, UL 94V-0)
Contact: Brass or Phosphor Bronze
Plating: See Table

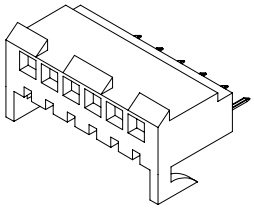
	Order No.
Polarizing Key	15-04-0219
Polarizing Peg	15-04-0220

Circuits	Order No.						Center Hook(s) Location
	2145			3215†			
	Tin	Select Gold	Lead-free	Tin	Select Gold	Lead-free	
2	09-52-1026	09-62-3021					
3	09-52-1036	09-62-3031		26-11-6034	26-11-6031		
4	09-52-1046	09-62-3041		26-11-6044	26-11-6041		
5	09-52-1056	09-62-3051		26-11-6054	26-11-6051		
6	09-52-1066	09-62-3061		26-11-6064	26-11-6061		
7	09-52-1076	09-62-3071		26-11-6074	26-11-6071		
8	09-52-1086	09-62-3081		26-11-6084	26-11-6081		
9	09-52-1096	09-62-3091	Yes	26-11-6094	26-11-6091	Yes	(1) between circuits 4-5
10	09-52-1106	09-62-3101		26-11-6104	26-11-6101		(1) between circuits 5-6
11	09-52-1116	09-62-3111		26-11-6114	26-11-6111		
12	09-52-1126	09-62-3121		26-11-6124	26-11-6121		(2) between circuits 4-5 and 8-9
13	09-52-1136	09-62-3131			26-11-6131		
14	09-52-1146	09-62-3141			26-11-6141		
15	09-52-1156	09-62-3151		26-11-6154	26-11-6151		(2) between circuits 5-6 and 10-11

* Dependent upon PC board
† Preferred version in Europe and the Far East

3.96mm (.156") Pitch KK® PC Board Connector

2145/3215
Top Entry



Features and Benefits
- Sizes 2 to 15 circuits
- Available without locking ramp or hook
- Polarizing key available
- Various tail lengths available
- Available with kinked tail option or single beam for low insertion force

Reference Information
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: Molex KK 3.96mm (.156") locking headers or 1.14mm (.045") stacked pins
Designed In: Inches

Electrical
Voltage: 250V
Current: 5.0A max.*
Contact Resistance: 6 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 50K Megohms min.

Physical
Housing: Nylon, UL 94V-2
(see 41815 for polyester, UL 94V-0)
Contact: Brass or Phosphor Bronze
Plating: See Table

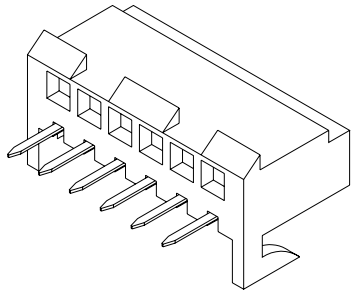
	Order No.
Polarizing Key	15-04-0297

Circuits	Order No.						Center Hook(s) Location
	2145			3215†			
	Tin	Select Gold	Lead-free	Tin	Select Gold	Lead-free	
2	09-62-6025	09-62-3023					
3	09-62-6035	09-62-3033		26-11-2033	26-30-1033		
4	09-62-6045	09-62-3043		26-11-2043	26-30-1043		
5	09-62-6055	09-62-3053		26-11-2053	26-30-1053		
6	09-62-6065	09-62-3063		26-11-2063	26-30-1063		
7	09-62-6075	09-62-3073		26-11-2073	26-30-1073		
8	09-62-6085	09-62-3083		26-11-2083	26-30-1083		
9	09-62-6095	09-62-3093	Yes	26-11-2093	26-30-1093	Yes	(1) between circuits 4-5
10	09-62-6105	09-62-3103		26-11-2103	26-30-1103		(1) between circuits 5-6
11	09-62-6115	09-62-3113		26-11-2113	26-30-1113		
12	09-62-6125	09-62-3123		26-11-2123	26-30-1123		(2) between circuits 4-5 and 8-9
13	09-62-6135	09-62-3133		26-11-2133	26-30-1133		
14	09-62-6145	09-62-3143		23-11-2143	26-30-1143		
15	09-62-6155	09-62-3153		26-11-2153	26-30-1153		(2) between circuits 5-6 and 10-11

* Dependent upon PC board
† Preferred version in Europe and the Far East

3.96mm (.156") Pitch KK® PC Board Connector

2145/3215
Bottom Entry



Features and Benefits
- Sizes 2 to 15 circuits
- Mating headers must be long enough to accommodate board thickness
- Polarizing key available
- Available without hooks (contact Molex)
- Various tail lengths available

Reference Information
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: Molex KK 3.96mm (.156") locking headers or 1.14mm (.045") pins
Designed In: Inches

Electrical
Voltage: 250V AC
Current: 5.0A max.*
Contact Resistance: 6 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 50K Megohms min.

Physical
Housing: Nylon, UL 94V-2
(see 41815 for polyester, UL 94V-0)
Contact: Brass or Phosphor Bronze
Plating: See Table

	Order No.
Polarizing Key	15-04-0297

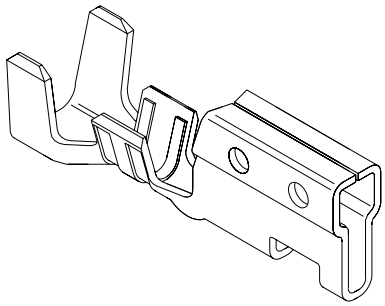
Circuits	Order No.						Center Hook(s) Location
	2145			3215†			
	Tin	Select Gold	Lead-free	Tin	Select Gold	Lead-free	
2	09-62-6024	09-62-3022	Yes			Yes	
3	09-62-6034	09-62-3032		26-11-6035	26-29-1031		
4	09-62-6044	09-62-3042		26-11-6045	26-29-1041		
5	09-62-6054	09-62-3052		26-11-6055	26-29-1051		
6	09-62-6064	09-62-3062		26-11-6065	26-29-1061		
7	09-62-6074	09-62-3072		26-11-6075	26-29-1071		
8	09-62-6084	09-62-3082		26-11-6085	26-29-1081		(1) between circuits 4-5
9	09-62-6094	09-62-3092		26-11-6095	26-29-1091		
10	09-62-6104	09-62-3102		26-11-6105	26-29-1101		(1) between circuits 5-6
11	09-62-6114	09-62-3112			26-29-1111		
12	09-62-6124	09-62-3122		26-11-6125	26-29-1121		(2) between circuits 4-5 and 8-9
13	09-62-6134	09-62-3132			26-29-1131		
14	09-62-6144	09-62-3142			26-29-1141		
15	09-62-6154	09-62-3152		26-11-6155	26-29-1151		(2) between circuits 5-6 and 10-11

* Dependent upon PC board
† Preferred version in Europe and the Far East

www.molex.com/product/kk/kk.html

3.96mm (.156") Pitch Macro-SPOX™ Crimp Terminal

5194/5225
Spring Box



Features and Benefits
- Four-point contact
- Anti-fishhooking contact design

Reference Information
Packaging: Reel or bag
Use With: 5195-N, 5196-N, 5197-N, 5198-N, 5199-N and 43061 housings
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current:
5194—7.0A max.
5225—4.0A max.

Physical
Contact: Brass and Phosphor Bronze
Plating: Tin
Wire Accommodation: 5194—18 to 24 AWG
5225—22 to 28 AWG
Strip Length: 3.0 to 3.5mm

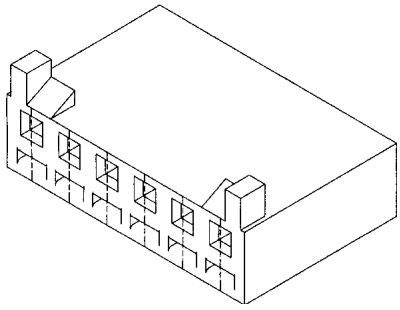
Order No.	Contact Material	Terminal	Insulation Diameter	Lead-free
08-70-1031	Tin-Plated Brass	Reel	1.30-3.20mm	Yes
08-70-1030		Bag		
39-00-0021	Tin-Plated Phosphor Bronze	Reel		
39-00-0022		Bag		
08-70-1029	Tin-Plated Brass	Reel	1.20-2.60mm	
08-70-1028		Bag		

Recommended wire range assumes stranded wire

www.molex.com/product/spox.html

3.96mm (.156") Pitch SPOX™ Crimp Housing Receptacle

43061



Features and Benefits

- Sizes 2 to 12 circuits
- Ramp and ribs provide 180° and side-to-side polarization
- Housing option A provides passive retention to headers with friction lock backwalls
- Integral housing latch eliminates potential for terminal back-out due to damaged locking tangs
- Spring box terminal design offers 4 points of contact; this interconnect system is recommended for severe environmental and high vibration applications

Reference Information

Product Specification: PS-5194/5225
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: R75108
Mates With: Molex KK 3.96mm (.156") pitch header or 1.14mm (.045") pins
Use With: 5194 and 5225

Physical

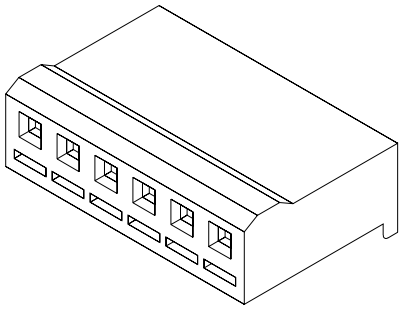
Housing: White polyester, UL 94V-0

Circuits	Order No.	
	With Ramps and Ribs	Without Ramps and Ribs
2	43061-0002	43061-0013
3	43061-0003	43061-0014
4	43061-0004	43061-0015
5	43061-0005	43061-0016
6	43061-0006	43061-0017
7	43061-0007	43061-0018

Circuits	Order No.	
	With Ramps and Ribs	Without Ramps and Ribs
8	43061-0008	43061-0019
9	43061-0009	43061-0020
10	43061-0010	43061-0021
11	43061-0011	43061-0022
12	43061-0012	43061-0023

3.96mm (.156") Pitch SPOX™ Crimp Terminal Housing

5195-N



Features and Benefits

- Sizes 2 to 12 circuits
- With locking ramp
- Molded-in locking arm for terminal

Reference Information

Product Specification: Refer to Mates With items
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5271-NA, 5272-NA, 5273-NA, 5274-NA and 5096-NC headers
Use With: 5194/5225
Designed In: Millimeters

Electrical

Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical

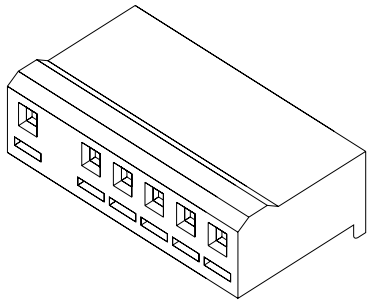
Housing: Nylon, UL 94V-2

Circuits	Order No.
2	09-50-1021
3	09-50-1031
4	09-50-1041
5	09-50-1051
6	09-50-1061
7	09-50-1071

Circuits	Order No.
8	09-50-1081
9	09-50-1091
10	09-50-1101
11	09-50-1111
12	09-50-1121

3.96mm (.156") Pitch SPOX™ Crimp Terminal Housing

5196-N



Features and Benefits
- Sizes 2 to 12 circuits
- With locking ramp
- Second circuits blanked for polarization
- Molded pull tab
- Molded-in locking arm for terminal

Reference Information
Product Specification: Refer to Mates With items
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5275-NA, 5277-NA headers
Use With: 5194/5225
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-2

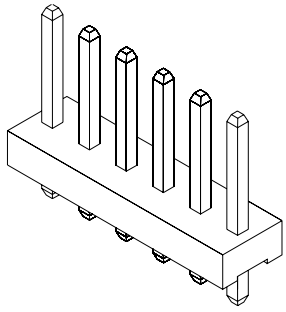
Circuits	Order No.
2	09-50-1023
3	09-50-1033
4	09-50-1043
5	09-50-1053
6	09-50-1063
7	09-50-1073

Circuits	Order No.
8	09-50-1083
9	09-50-1093
10	09-50-1103
11	09-50-1113
12	09-50-1123

www.molex.com/product/spox.html

3.96mm (.156") Pitch SPOX™ and KK® Header

5271-NA
Vertical



Features and Benefits
- Sizes 2 to 12 circuits

Reference Information
Product Specification: PS-5195-004
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5195-N, 5239-N and 5145-NAH/NCH housings
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

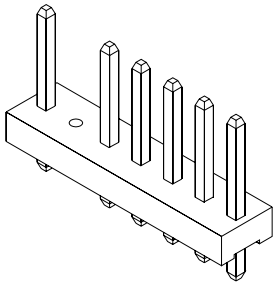
Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
2	09-67-4021	Yes
3	09-67-4031	
4	09-67-4041	
5	09-67-4051	
6	09-67-4061	
7	09-67-4071	

Circuits	Order No.	Lead-free
8	09-67-4081	Yes
9	09-67-4091	
10	09-67-4101	
11	09-67-4111	
12	09-67-4121	

3.96mm (.156") Pitch SPOX™ and KK® Header

5275-NA
Vertical



Features and Benefits
- Sizes 2 to 11 circuits
- Second circuit blanked for polarization

Reference Information
Product Specification: PS-5196-004
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5196-N
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

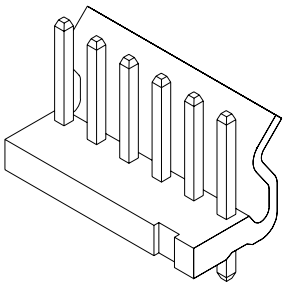
Circuits	Order No.	Lead-free
2	09-67-4022	Yes
3	09-67-4032	
4	09-67-4042	
5	09-67-4052	
6	09-67-4062	

Circuits	Order No.	Lead-free
7	09-67-4072	Yes
8	09-67-4082	
9	09-67-4092	
10	09-67-4102	
11	09-67-4112	

www.molex.com/customer.html?seriesNumber=5275

3.96mm (.156") Pitch SPOX™ Header

5273-NA
Vertical Friction Lock



Features and Benefits
- Sizes 2 to 8 circuits

Reference Information
Product Specification: PS-5195-005
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5195-N and 5239-N housings
Designed In: Millimeters

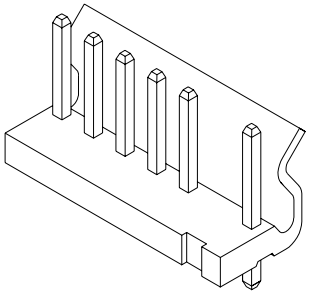
Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
2	09-65-2028	Yes
3	09-65-2038	
4	09-65-2048	
5	09-65-2058	
6	09-65-2068	
7	09-65-2078	
8	09-65-2088	

3.96mm (.156") Pitch SPOX™ Header

5277-NA
Vertical Friction Lock



Features and Benefits
- Sizes 2 to 8 circuits
- Locking ramp

Reference Information
Product Specification: PS-5196-006
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5196-N housings
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

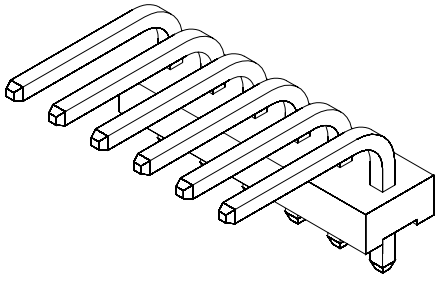
Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
2	09-65-2029	Yes
3	09-65-2039	
4	09-65-2049	
5	09-65-2059	
6	09-65-2069	
7	09-65-2079	
8	09-65-2089	

www.molex.com/product/spox.html

3.96mm (.156") Pitch SPOX™ and KK® Header

5272-NA
Right Angle



Features and Benefits
- Sizes 2 to 12 circuits

Reference Information
Product Specification: PS-5195-004
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5195-N and 5239-N housings
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

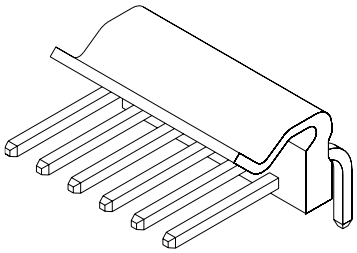
Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
2	09-66-5022	Yes
3	09-66-5032	
4	09-66-5042	
5	09-66-5052	
6	09-66-5062	
7	09-66-5072	

Circuits	Order No.	Lead-free
8	09-66-5082	Yes
9	09-66-5092	
10	09-66-5102	
11	09-66-5112	
12	09-66-5122	

3.96mm (.156") Pitch SPOX™ Header

5274-NA
Right Angle Friction Lock



Features and Benefits
- Sizes 2 to 6 circuits

Reference Information
Product Specification: PS-5195-005
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5195-N and 5239-N housings
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

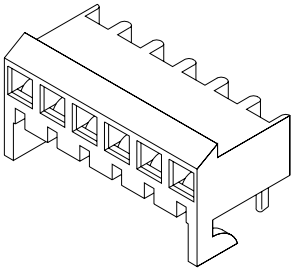
Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
2	09-75-2024	Yes
3	09-75-2034	
4	09-75-2044	
5	09-75-2054	
6	09-75-2064	

www.molex.com/product/spox.html

3.96mm (.156") Pitch PC Board Connector

5145-NAH
Right Angle Mount



Features and Benefits
- Sizes 2 to 12 circuits

Reference Information
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5271-NA headers and 0.156" headers

Electrical
Voltage: 250V
Current: 5.0A
Contact Resistance: 10 milliohms max.

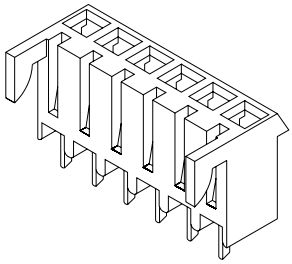
Physical
Housing: 6/6 nylon, UL 94V-2
Contact: Brass

Circuits	Order No.	Additional PCB Edge Guide	Lead-free
2	26-01-1026	None	Yes
3	26-01-1036		
4	26-01-1046		
5	26-01-1056		
6	26-01-1066		
7	26-01-1076		

Circuits	Order No.	Additional PCB Edge Guide	Lead-free
8	26-01-1086	Between 4 and 5 Circuits	Yes
9	26-01-1096		
10	26-01-1106	Between 5 and 6 Circuits	
11	26-01-1116		
12	26-01-1126	Between 4/5 and 8/9 Circuits	

3.96mm (.156") Pitch PC Board Connector

5145-NCH
Top Entry



Features and Benefits
- Sizes 2 to 12 circuits

Reference Information
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5271-NA headers

Electrical
Voltage: 250V
Current: 5.0A
Contact Resistance: 10 milliohms max.

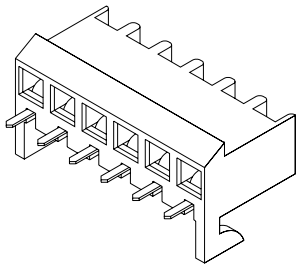
Physical
Housing: 6/6 nylon, UL 94V-2
Contact: Brass
Plating: Tin

Circuits	Order No.	Additional PCB Edge Guide	Lead-free
2	26-01-1029	None	Yes
3	26-01-1039		
4	26-01-1049		
5	26-01-1059		
6	26-01-1069		

Circuits	Order No.	Additional PCB Edge Guide	Lead-free
7	26-01-1079	None	Yes
8	26-01-1089	Between 4 and 5 Circuits	
9	26-01-1099	Between 5 and 6 Circuits	
10	26-01-1109		
12	26-01-1129	Between 4/5 and 8/9 Circuits	

3.96mm (.156") Pitch PC Board Connector

5145-NBH
Bottom Entry



Features and Benefits
- Sizes 2 to 12 circuits

Reference Information
UL File No.: E29179
CSA File No.: LR19980
Mates With: 41661 headers

Electrical
Voltage: 250V
Current: 5.0A
Contact Resistance: 10 milliohms max.

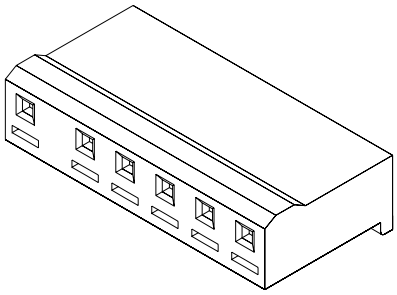
Physical
Housing: 6/6 nylon, UL 94V-2
Contact: Brass

Circuits	Order No.	Additional PCB Edge Guide	Lead-free
2	26-01-1028	None	Yes
3	26-01-1038		
4	26-01-1048		
5	26-01-1058		
6	26-01-1068		

Circuits	Order No.	Additional PCB Edge Guide	Lead-free
7	26-01-1078	None	Yes
8	26-01-1088	Between 4 and 5 Circuits	
9	26-01-1098	Between 5 and 6 Circuits	
10	26-01-1108		
12	26-01-1128	Between 4/5 and 8/9 Circuits	

5.00mm (.197") Pitch SPOX™ Crimp Terminal Housing

5199-N



Circuits	Order No.
2	10-63-3024
3	10-63-3034
4	10-63-3044
5	10-63-3054
6	10-63-3064

Features and Benefits
- Sizes 2 to 6 circuits available
- Polarization through varied center spacing between circuits 1 and 2
- With locking ramp
- Molded pull tab
- Molded-in locking arm for terminal

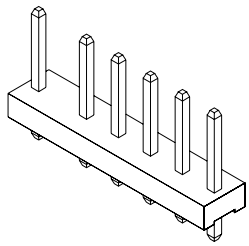
Reference Information
Product Specification: PS-5199-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5287-NA and 5289-NA headers
Use With: 5194 and 5225 terminals
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-2

5.00mm (.197") Pitch SPOX™ Header

5287-NA
Vertical



Circuits	Order No.	Lead-free
2	10-63-3023	Yes
3	10-63-3033	
4	10-63-3043	
5	10-63-3053	
6	10-63-3063	

Features and Benefits
- Sizes 2 to 6 circuits
- Polarization through varied center spacing between circuits 1 and 2

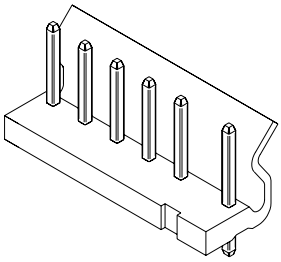
Reference Information
Product Specification: PS-5199-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5199-N housings
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

5.00mm (.197") Pitch SPOX™ Header

5289-NA
Vertical Friction Lock



Circuits	Order No.	Lead-free
2	10-31-1028	Yes
3	10-31-1038	
4	10-31-1048	
5	10-31-1058	
6	10-31-1068	

Features and Benefits
- Sizes 2 to 6 circuits
- Locking ramp
- Polarization through varied center spacing between circuits 1 and 2

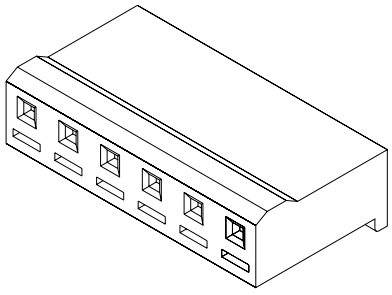
Reference Information
Product Specification: PS-5199-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5199-N housings
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

5.08mm (.200") Pitch SPOX™ Crimp Terminal Housing

5197-N



Circuits	Order No.
2	10-01-3026
3	10-01-3036
4	10-01-3046
5	10-01-3056
6	10-01-3066
7	10-01-3076
8	10-01-3086
9	10-01-3096

Features and Benefits
- Sizes 2 to 9 circuits
- Molded pull tab
- With locking ramp
- Molded-in locking arm for terminal

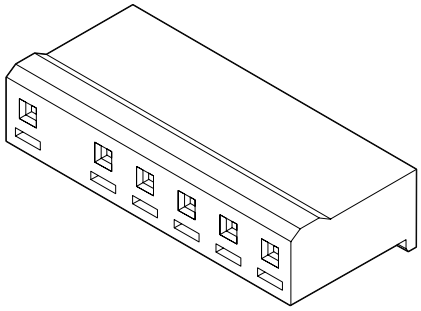
Reference Information
Product Specification: Refer to Mates With items
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5279-NA, 5280-NA, 5281-NA and 5282-NA headers
Use With: 5194 terminal
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-2

5.08mm (.200") Pitch SPOX™ Crimp Terminal Housing

5198-N
With Void



Circuits	Order No.
2	10-22-1022
3	10-22-1032
4	10-22-1042
5	10-22-1052
6	10-22-1062
7	10-22-1072
8	10-22-1082
9	10-22-1092

Features and Benefits
- Sizes 2 to 9 circuits
- Same as 5197 but with second circuit void

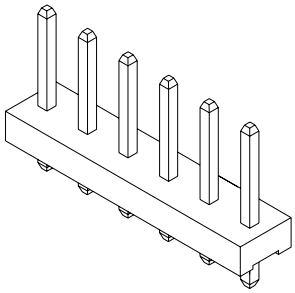
Reference Information
Product Specification: Refer to Mates With items
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5283-NA, 5284-NA, 5285-NA and 5286-NA headers
Use With: 5194, 5225
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-2

5.08mm (.200") Pitch SPOX™ Header

5279-NA
Vertical



Circuits	Order No.	Lead-free
2	10-02-1027	Yes
3	10-02-1037	
4	10-02-1047	
5	10-02-1057	
6	10-02-1067	
7	10-02-1077	
8	10-02-1087	
9	10-02-1097	

Features and Benefits
- Sizes 2 to 9 circuits

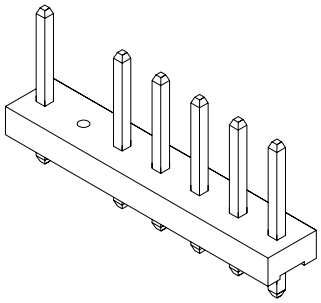
Reference Information
Product Specification: PS-5279-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5197-N housing
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

5.08mm (.200") Pitch SPOX™ Header

5283-NA
Vertical With Void



Features and Benefits
- Sizes 3 to 8 circuits
- Same as 5279 but with second pin void

Reference Information
Product Specification: PS-5198-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5198-N housings
Designed In: Millimeters

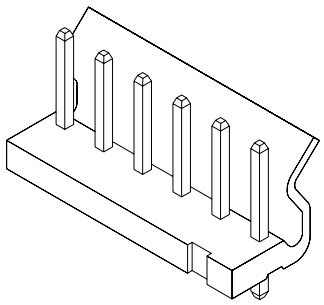
Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
3	10-63-1033	Yes
4	10-63-1043	
5	10-63-1053	
6	10-63-1063	
7	10-63-1073	
8	10-63-1083	

5.08mm (.200") Pitch SPOX™ Header

5281-NA
Vertical Friction Lock



Features and Benefits
- Sizes 2 to 9 circuits

Reference Information
Product Specification: PS-5197-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5197-N housing
Designed In: Millimeters

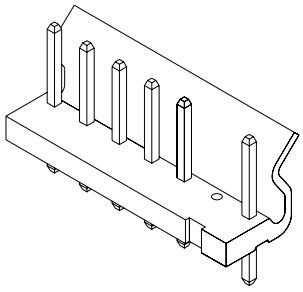
Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
2	10-32-1021	Yes
3	10-32-1031	
4	10-32-1041	
5	10-32-1051	
6	10-32-1061	
7	10-32-1071	
8	10-32-1081	
9	10-32-1091	

5.08mm (.200") Pitch SPOX™ Header

5285-NA
Vertical, Friction Lock With Void



Features and Benefits
- Sizes 2 to 9 circuits
- Second pin void

Reference Information
Product Specification: PS-5198-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5198-N housing
Designed In: Millimeters

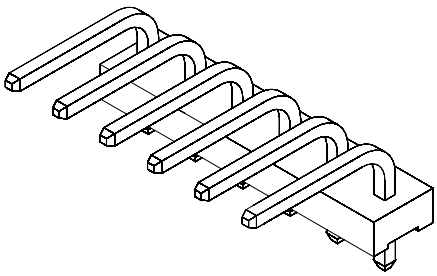
Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
2	10-63-1029	Yes
3	10-63-1039	
4	10-63-1049	
5	10-63-1059	
6	10-63-1069	
7	10-63-1079	
8	10-63-1089	
9	10-63-1099	

5.08mm (.200") Pitch SPOX™ Header

5280-NA
Right Angle



Features and Benefits
- Sizes 2 to 9 circuits

Reference Information
Product Specification: PS-5280-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5197-N housing
Designed In: Millimeters

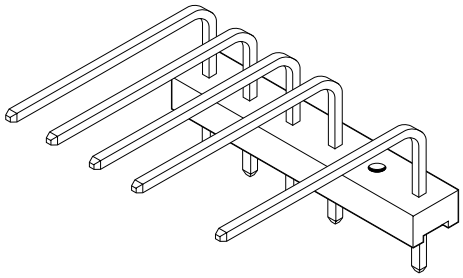
Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
2	10-33-1021	Yes
3	10-33-1031	
4	10-33-1041	
5	10-33-1051	
6	10-33-1061	
7	10-33-1071	
8	10-33-1081	
9	10-33-1091	

5.08mm (.200") Pitch SPOX™ Header

5284-NA
Right Angle With Void



Features and Benefits
- Sizes 3 to 8 circuits
- Second pin void

Reference Information
Product Specification: PS-5198-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5198-N housing
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

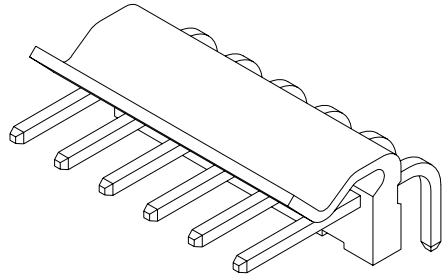
Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
3	10-68-1035	Yes
4	10-68-1045	
5	10-68-1055	
6	10-68-1065	
7	10-68-1075	
8	10-68-1085	

www.molex.com/product/spox.html

5.08mm (.200") Pitch Header

5282-NA
Right Angle Square Pin



Features and Benefits
- Sizes 2 to 7 circuits

Reference Information
Product Specification: PS-5197-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5197-N housings
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

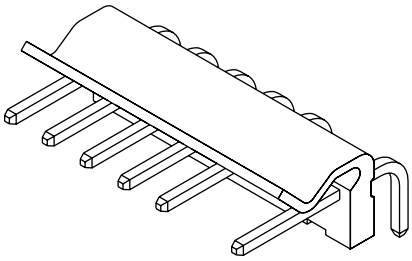
Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
2	10-33-1022	Yes
3	10-33-1032	
4	10-33-1042	
5	10-33-1052	
6	10-33-1062	
7	10-33-1072	

5.08mm (.200") Pitch SPOX™ and KK® Header

5286-NA

Right Angle, Friction Lock With Void



Circuits	Order No.	Lead-free
2	10-68-1027	Yes
3	10-68-1037	
4	10-68-1047	
5	10-68-1057	
6	10-68-1067	

Features and Benefits
- Sizes 2 to 6 circuits
- Second pin void
- Friction-locking ramp provides secure mating retention

Reference Information
Product Specification: PS-5286-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5198-N housing
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

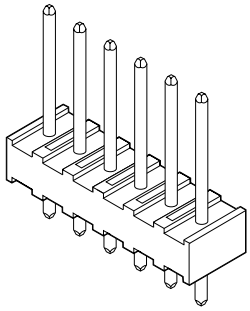
Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

www.molex.com/customer.html?seriesNumber=5286

5.08mm (.200") Pitch KK® Header

3003

Vertical Round Pin



Circuits	Order No.		Lead-free
	Tin	Gold	
2	10-08-1021	10-45-1021	Yes
3	10-08-1031	10-45-1031	
4	10-08-1041	10-45-1041	
5	10-08-1051	10-45-1051	
6	10-08-1061	10-45-1061	
7	10-08-1071	10-45-1071	
8	10-08-1081	10-45-1081	
9	10-08-1091	10-45-1091	
10	10-08-1101	10-45-1101	
11	10-08-1111	10-45-1111	

Circuits	Order No.		Lead-free
	Tin	Gold	
12	10-08-1121	10-45-1121	Yes
13	10-08-1131	10-45-1131	
14	10-08-1141	10-45-1141	
15	10-08-1151	10-45-1151	
16	10-08-1161	10-45-1161	
17	10-08-1171	10-45-1171	
18	10-08-1181	10-45-1181	
19	10-08-1191	10-45-1191	
20	10-08-1201	10-45-1201	

Features and Benefits
- Sizes 2 to 20 circuits
- Available with voids (contact Molex)
- Molded insulator

Reference Information
Product Specification: PSX10-39
UL File No.: E29179SC
CSA File No.: LR19980
Mates With: 3001, 3002, 3011 and 5058-N

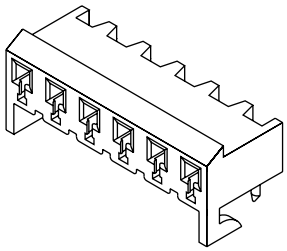
Electrical
Voltage: 250V
Current: 7.0A
Contact Resistance: 20 milliohms max.

Mechanical
Mating Force: 24 oz max.
Unmating Force: 4 oz min.
Normal Force: 350g
Durability: 25 cycles Tin

Physical
Housing: Nylon, UL 94V-2
Contact: Brass

5.08mm (.200") Pitch KK® PC Board Connector

2767-NAH
Right Angle Mount



Features and Benefits
- Sizes 4 to 6 circuits

Reference Information
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5279-NA

Electrical
Voltage: 250V
Current: 7.0A
Contact Resistance: 10 milliohms max.

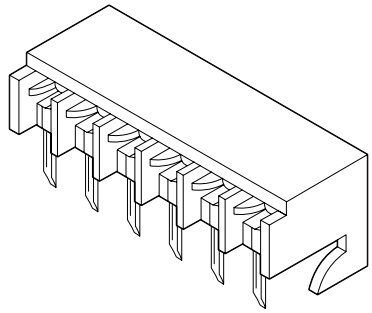
Physical
Housing: 6/6 nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
4	10-05-1043	Yes
5	10-05-1053	
6	10-05-1063	

www.molex.com/customer.html?seriesNumber=2767

5.08mm (.200") Pitch KK® PC Board Connector

3002
Right Angle Mount Style A



Features and Benefits
- Sizes 2 to 20 circuits

Reference Information
Product Specification: PSX10-39
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2599, 3003 and 3008 headers

Electrical
Voltage: 250V
Current: 7.0A
Contact Resistance: 20 milliohms max.

Mechanical
Mating Force: 24 oz max.
Unmating Force: 4 oz min.
Normal Force: 350g
Durability: Tin—25 cycles
Gold—50 cycles

Physical
Housing: Nylon, UL 94V-2

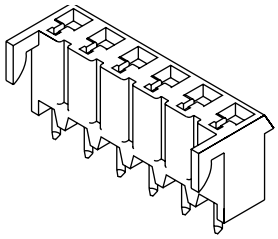
Circuits	Order No.		Lead-free
	Tin	Gold	
2	10-10-1021	10-10-1024	Yes
3	10-10-1031	10-10-1034	
4	10-10-1041	10-10-1044	
5	10-10-1051	10-10-1054	
6	10-10-1061	10-10-1064	
7	10-10-1071	10-10-1074	
8	10-10-1081	10-10-1084	
9	10-10-1091	10-10-1094	
10	10-10-1101	10-10-1104	
11	10-10-1111	10-10-1114	

Circuits	Order No.		Lead-free
	Tin	Gold	
12	10-10-1121	10-10-1124	Yes
13	10-10-1131	10-10-1134	
14	10-10-1141	10-10-1144	
15	10-10-1151	10-10-1154	
16	10-10-1161	10-10-1164	
17	10-10-1171	10-10-1174	
18	10-10-1181	10-10-1184	
19	10-10-1191	10-10-1194	
20	10-10-1201	10-10-1204	

Plating: 1.00 microns Tin /2.00 microns Copper min. (.000040" Tin /.000080" Copper min.) or 0.50 microns Gold/0.75 microns Nickel min. (.000020" Gold/.000030" Nickel min.)

5.08mm (.200") Pitch KK® PC Board Connector

2767-NCH
Top Entry



Circuits	Order No.	Lead-free
3	10-05-1037	Yes
4	10-05-1047	
5	10-05-1057	
6	10-05-1067	

Features and Benefits
- Sizes 3 to 6 circuits

Reference Information
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5279-NA

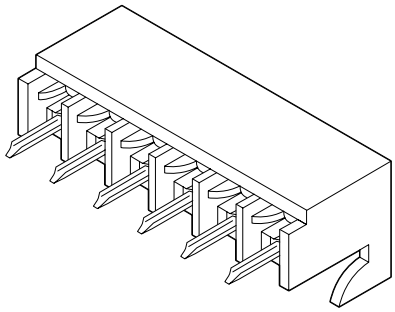
Electrical
Voltage: 250V
Current: 7.0A
Contact Resistance: 10 milliohms max.

Physical
Housing: 6/6 nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

www.molex.com/customer.html?seriesNumber=2767

5.08mm (.200") Pitch KK® PC Board Connector

3002
Top Entry
Mount Style C



Circuits	Order No.		Lead-free
	Tin	Gold	
2	10-10-1023	10-10-1028	Yes
3	10-10-1033	10-10-1038	
4	10-10-1043	10-10-1048	
5	10-10-1053	10-10-1058	
6	10-10-1063	10-10-1068	
7	10-10-1073	10-10-1078	
8	10-10-1083	10-10-1088	
9	10-10-1093	10-10-1098	
10	10-10-1103	10-10-1108	
11	10-10-1113	10-10-1118	

Circuits	Order No.		Lead-free
	Tin	Gold	
12	10-10-1123	10-10-1128	Yes
13	10-10-1133	10-10-1138	
14	10-10-1143	10-10-1148	
15	10-10-1153	10-10-1158	
16	10-10-1163	10-10-1168	
17	10-10-1173	10-10-1178	
18	10-10-1183	10-10-1188	
19	10-10-1193	10-10-1198	
20	10-10-1203	10-10-1208	

Plating: 1.00 microns Tin /2.00 microns Copper min. (.000040" Tin /.000080" Copper min.) or 0.50 microns Gold/0.75 microns Nickel min. (.000020" Gold/.000030" Nickel min.)

Features and Benefits
- Sizes 2 to 20 circuits

Reference Information
Product Specification: PSX10-39
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2599, 3003 and 3008 headers

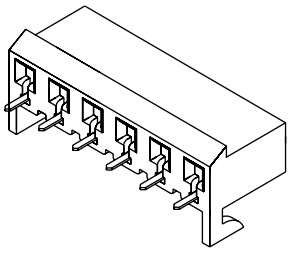
Electrical
Voltage: 250V
Current: 7.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 500K Megohms min.

Mechanical
Mating Force: 24 oz max.
Unmating Force: 4 oz min.
Normal Force: 350g
Durability: Tin—25 cycles
Gold—50 cycles

Physical
Housing: Nylon, UL 94V-2

5.08mm (.200") Pitch KK® PC Board Connector

2767-NBH
Bottom Entry



Features and Benefits
- Sizes 4 to 6 circuits

Reference Information
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5077-NC

Electrical
Voltage: 250V
Current: 7.0A
Contact Resistance: 10 milliohms max.

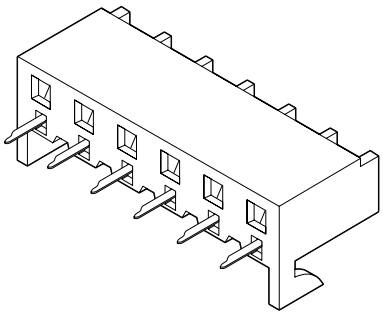
Physical
Housing: 6/6 nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

Circuits	Order No.	Lead-free
4	10-05-1045	Yes
5	10-05-1055	
6	10-05-1065	

www.molex.com/customer.html?seriesNumber=2767

5.08mm (.200") Pitch KK® PC Board Connector

3002
Bottom Entry
Mount Style B



Features and Benefits
- Sizes 2 to 20 circuits

Reference Information
Product Specification: PSX10-39
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2599, 3003 and 3008 headers

Electrical
Voltage: 250V
Current: 7.0A
Contact Resistance: 20 milliohms max.

Mechanical
Mating Force: 24 oz max. per contact
Unmating Force: 4 oz min. per contact
Normal Force: 350g per contact
Durability: Tin—25 cycles
Gold—50 cycles

Physical
Housing: Nylon, UL 94V-2
Contact: Phosphor Bronze

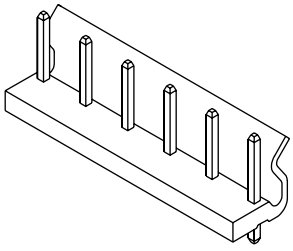
Circuits	Order No.		Lead-free
	Tin	Gold	
2	10-02-1022	10-10-1026	Yes
3	10-02-1032	10-10-1036	
4	10-02-1042	10-10-1046	
5	10-02-1052	10-10-1056	
6	10-02-1062	10-10-1066	
7	10-02-1072	10-10-1076	
8	10-02-1082	10-10-1086	
9	10-02-1092	10-10-1096	
10	10-02-1102	10-10-1106	
11	10-02-1112	10-10-1116	

Circuits	Order No.		Lead-free
	Tin	Gold	
12	10-02-1122	10-10-1126	Yes
13	10-02-1132	10-10-1136	
14	10-02-1142	10-10-1146	
15	10-02-1152	10-10-1156	
16	10-02-1162	10-10-1166	
17	10-02-1172	10-10-1176	
18	10-02-1182	10-10-1186	
19	10-02-1192	10-10-1196	
20	10-02-1202	10-10-1206	

Plating: 1.00 microns Tin /2.00 microns Copper min. (.000040" Tin /.000080" Copper min.) or 0.50 microns Gold/0.75 microns Nickel min. (.000020" Gold/.000030" Nickel min.)

7.92mm (.312") Pitch SPOX™ Header

5096-NC
Straight Friction Lock



Circuits	Order No.	Lead-free
3	10-63-4037	Yes
4	10-63-4047	
5	10-63-4057	

Features and Benefits
- Sizes 3 to 5 circuits
- Friction locking wall for secure retention

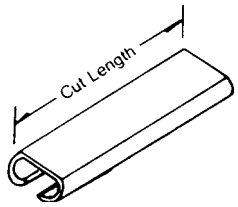
Reference Information
Product Specification: PS-5195-006
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5195-N and 5239-N housings
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin over Copper

KK®
Standard IDT Covers
7894/7841

Features and Benefits
- Sizes 4 to 28 circuits, see tables
- Prevents contaminants from affecting wire connection
- Cover accommodates feed-to and feed-through IDT connectors
- Improves wire retention



7894/3.96mm (.156")		
Circuits	Order No.	Cut Length
4	15-05-7044	15.19 (.598)
5	15-05-7054	19.15 (.754)
6	15-05-7064	23.11 (.910)
7	15-05-7074	27.07 (1.066)
8	15-05-7084	31.04 (1.222)
9	15-05-7094	35.00 (1.378)
10	15-05-7104	38.96 (1.534)
11	15-05-7114	42.93 (1.690)
12	15-05-7124	46.89 (1.846)
13	15-05-7134	50.85 (2.002)
14	15-05-7144	54.81 (2.158)
15	15-05-7154	58.78 (2.314)
16	15-05-7164	62.74 (2.470)
17	15-05-7174	66.70 (2.626)
18	15-05-7184	70.66 (2.782)
19	15-05-7194	74.62 (2.938)
20	15-05-7204	78.59 (3.094)
21	15-05-7214	82.55 (3.250)
22	15-05-7224	86.51 (3.406)
23	15-05-7234	90.47 (3.562)
24	15-05-7244	94.44 (3.718)

7894/5.08mm (.200")		
Circuits	Order No.	Cut Length
4	15-05-7045	18.54 (.730)
5	15-05-7055	23.62 (.930)
6	15-05-7065	28.70 (1.130)
7	15-05-7075	33.78 (1.330)
8	15-05-7085	38.86 (1.530)
9	15-05-7095	43.94 (1.730)
10	15-05-7105	49.02 (1.930)
11	15-05-7115	54.10 (2.130)
12	15-05-7125	59.18 (2.330)
13	15-05-7135	64.26 (2.530)
14	15-05-7145	69.34 (2.730)
15	15-05-7155	74.41 (2.930)
16	15-05-7165	79.50 (3.130)

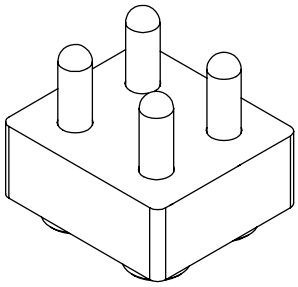
7841/2.50mm (.098")			
Circuits	Order No.		Cut Length
	Feed-Through	Feed-To	
4	15-05-8046	15-05-8048	10.49 (.413)
5	15-05-8056	15-05-8058	13.00 (.512)
6	15-05-8066	15-05-8068	15.51 (.611)
7	15-05-8076	15-05-8078	18.00 (.709)
8	15-05-8086	15-05-8088	20.49 (.807)
9	15-05-8096	15-05-8098	23.01 (.906)
10	15-05-8106	15-05-8108	25.50 (1.004)
11	15-05-8116	15-05-8118	27.99 (1.102)
12	15-05-8126	15-05-8128	30.50 (1.201)
13	15-05-8136	15-05-8138	32.99 (1.299)
14	15-05-8146	15-05-8148	35.50 (1.398)
15	15-05-8156	15-05-8158	37.99 (1.496)
16	15-05-8166	15-05-8168	40.51 (1.595)
17	15-05-8176	15-05-8178	43.00 (1.693)
18	15-05-8186	15-05-8188	45.49 (1.791)
19	15-05-8196	15-05-8198	48.00 (1.890)
20	15-05-8206	15-05-8208	50.49 (1.988)
21	15-05-8216	15-05-8218	53.00 (2.067)
22	15-05-8226	15-05-8228	55.49 (2.185)
23	15-05-8236	15-05-8238	57.98 (2.283)
24	15-05-8246	15-05-8248	60.50 (2.382)
25	15-05-8256	15-05-8258	62.99 (2.480)
26	15-05-8266	15-05-8268	65.50 (2.579)
27	15-05-8276	15-05-8278	68.02 (2.678)
28	15-05-8286	15-05-8288	70.51 (2.776)

7841/2.54mm (.100")			
Circuits	Order No.		Cut Length
	Feed-Through	Feed-To	
4	15-05-8045	15-05-8047	10.51 (.414)
5	15-05-8055	15-05-8057	13.05 (.514)
6	15-05-8065	15-05-8067	15.59 (.614)
7	15-05-8075	15-05-8077	18.13 (.714)
8	15-05-8085	15-05-8087	20.67 (.814)
9	15-05-8095	15-05-8097	23.21 (.914)
10	15-05-8105	15-05-8107	25.75 (1.014)
11	15-05-8115	15-05-8117	28.29 (1.114)
12	15-05-8125	15-05-8127	30.83 (1.214)
13	15-05-8135	15-05-8137	33.37 (1.314)
14	15-05-8145	15-05-8147	35.91 (1.414)
15	15-05-8155	15-05-8157	38.45 (1.514)
16	15-05-8165	15-05-8167	40.99 (1.614)
17	15-05-8175	15-05-8177	43.53 (1.714)
18	15-05-8185	15-05-8187	46.07 (1.814)
19	15-05-8195	15-05-8197	48.61 (1.914)
20	15-05-8205	15-05-8207	51.15 (2.014)
21	15-05-8215	15-05-8217	53.69 (2.114)
22	15-05-8225	15-05-8227	56.23 (2.214)
23	15-05-8235	15-05-8237	58.77 (2.314)
24	15-05-8245	15-05-8247	61.31 (2.414)
25	15-05-8255	15-05-8257	63.85 (2.514)
26	15-05-8265	15-05-8267	66.39 (2.614)
27	15-05-8275	15-05-8277	68.93 (2.714)
28	15-05-8285	15-05-8287	71.47 (2.814)

3.00mm (.118") Pitch Pogo Pin Connector

47247

Vertical, Surface Mount



Circuits	Order No.	Lead-free
4	47247-0001	Yes

Features and Benefits

- Speaker, battery, vibrator or antenna contact applications
- Small footprint saves PCB real estate and provides more flexible design
- SMT lead-free configuration
- Initial height at 5.40mm (.213") and full-stroke working height at 4.00mm (.157")

Reference Information

Product Specification: PS-47247-001
Packaging: Tape on reel
Designed In: Millimemters

Electrical

Voltage: 12V DC
Current: 2.0A
Contact Resistance: 25 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 1000 Megohms min.

Mechanical

Normal Force: 0.17N
Durability: 10,000 cycles

Physical

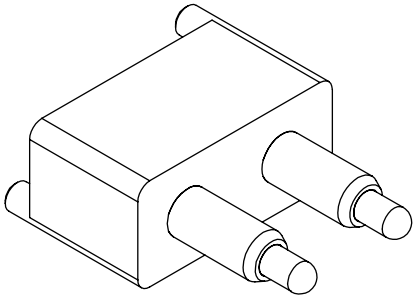
Housing: PA Polyamide (nylon) 4/6, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—12µ" Gold
Solder Tail Area—5µ" Gold
Underplating: Nickel

www.molex.com/customer.html?seriesNumber=47247

3.50mm (.138") Pitch Pogo Pin Connector

47244

Vertical, Surface Mount With Cap



Circuits	Order No.	Lead-free
2	47244-0001	Yes

Features and Benefits

- Speaker, battery, vibrator or antenna contact applications
- Small footprint saves PCB real estate and provides more flexible design
- SMT lead-free configuration
- Initial height at 8.80mm (.346") and full-stroke working height at 7.80mm (.307")

Reference Information

Product Specification: PS-47244-001
Packaging: Tape on reel
Designed In: Millimeters

Electrical

Voltage: 12V DC
Current: 2.0A
Contact Resistance: 30 milliohms max.
Insulation Resistance: 100 Megohms min.

Mechanical

Normal Force: 0.88N
Durability: 10,000 cycles

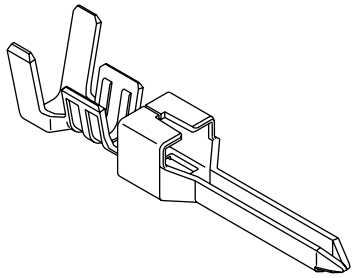
Physical

Housing: PA Polyamide (nylon), UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—12µ" Gold
Solder Tail Area—4µ" Gold
Underplating: Nickel

www.molex.com/customer.html?seriesNumber=47244

3.50mm (.138") Pitch Wire-to-Wire Crimp Terminal

50419
Male



Features and Benefits
- Locking window provides secure mating retention to housing lance

Reference Information
Use With: 51114
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 6.0A max.

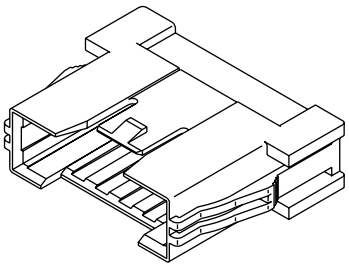
Physical
Contact: Brass
Plating: Tin
Wire Range: 18 to 24 AWG
Insulation Diameter: 1.40 to 3.00mm (.055 to .118")
Strip Length: 3.00 to 3.50mm (.118 to .138")

Order No.	Packaging	Lead-free
50419-9001	Reel	Yes
50419-9101	Bag	

www.molex.com/customer.html?seriesNumber=50419

3.50mm (.138") Pitch Wire-to-Wire Plug

51114
Positive Lock Panel Mount



Features and Benefits
- Sizes 2 to 10 circuits
- Integral mounting ears provide easy panel attachment and secure retention
- Housing locking tang for secure terminal retention

Reference Information
Product Specification: PS-51067-008
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51067
Use With: 50419
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 6.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

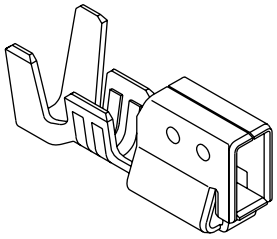
Physical
Housing: PBT, UL 94V-0

Circuits	Order No.	
	With Panel Mount	Without Panel Mount
2	51114-0200	51114-0210
3	51114-0300	51114-0310
4	51114-0400	51114-0410
5	51114-0500	51114-0510
6	51114-0600	51114-0610

Circuits	Order No.	
	With Panel Mount	Without Panel Mount
7	51114-0700	51114-0710
8	51114-0800	51114-0810
9	51114-0900	51114-0910
10	51114-1000	51114-1010

3.50mm (.138") Pitch and 3.96mm (.156") Pitch Wire-to-Board and Wire-to-Wire Crimp Terminal

50217



Features and Benefits
- Four points of contact
- Housing lance holds terminal securely in place

Reference Information
Use With: 51067 and 35156 housings
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.

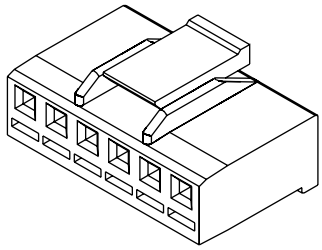
Physical
Contact: 50217-8X00—Phosphor Bronze
50217-9X01—Brass
Plating: Tin
Wire Range: 18 to 24 AWG
Insulation Range: 1.40 to 3.00mm dia.
Strip Length: 3.00 to 3.50mm

Order No.	Packaging	Contact	Lead-free
50217-8000	Reel	Phosphor Bronze	Yes
50217-9001		Brass	
50217-8100	Bag	Phosphor Bronze	
50217-9101		Brass	

www.molex.com/customer.html?seriesNumber=50217

3.50mm (.138") Pitch Wire-to-Board and Wire-to-Wire Housing

51067
Positive Lock



Features and Benefits
- Sizes 2 to 15 circuits
- Side walls protect latch and facilitate mating
- Housing lance provides secure terminal retention

Reference Information
Product Specification: Refer to Mates With items
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 53258, 53259, 53265 and 53266
Use With: 50217
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 6.0A max.

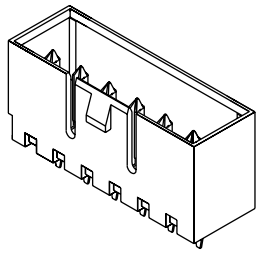
Physical
Housing: PBT, UL 94V-0

Circuits	Order No.
2	51067-0200
3	51067-0300
4	51067-0400
5	51067-0500
6	51067-0600
7	51067-0700
8	51067-0800

Circuits	Order No.
9	51067-0900
10	51067-1000
11	51067-1100
12	51067-1200
13	51067-1300
14	51067-1400
15	51067-1500

3.50mm (.138") Pitch Wire-to-Board Header

53258
Vertical



Features and Benefits
- Sizes 2 to 15 circuits
- Guide slots facilitate mating

Reference Information
Product Specification: PS-51067-019
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51067
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 5.5A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Glass-filled PBTP, UL 94V-0
Contact: Brass
Plating: Tin over Nickel

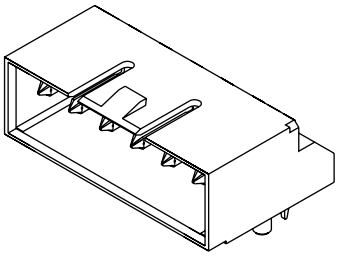
Circuits	Order No.	Lead-free
2	53258-0229	Yes
3	53258-0329	
4	53258-0429	
5	53258-0529	
6	53258-0629	
7	53258-0729	
8	53258-0829	

Circuits	Order No.	Lead-free
9	53258-0929	Yes
10	53258-1029	
11	53258-1129	
12	53258-1229	
13	53258-1329	
14	53258-1429	
15	53258-1529	

www.molex.com/customer.html?seriesNumber=53258

3.50mm (.138") Pitch Wire-to-Board Header

53259
Right Angle



Features and Benefits
- Sizes 2 to 15 circuits
- PCB pegs provide placement guidance
- Guide slots facilitate mating

Reference Information
Product Specification: PS-51067-019
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51067
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 5.5A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

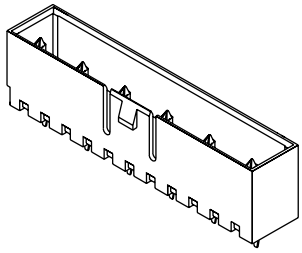
Physical
Housing: Glass-filled PBTP, UL 94V-0
Contact: Brass
Plating: Tin over Nickel

Circuits	Order No.	Lead-free
2	53259-0229	Yes
3	53259-0329	
4	53259-0429	
5	53259-0529	
6	53259-0629	
7	53259-0729	
8	53259-0829	

Circuits	Order No.	Lead-free
9	53259-0929	Yes
10	53259-1029	
11	53259-1129	
12	53259-1229	
13	53259-1329	
14	53259-1429	
15	53259-1529	

7.00mm (.276") Pitch Wire-to-Board Header

53265
Vertical



Features and Benefits
- Sizes 2 to 8 circuits
- Guide slots facilitate mating

Reference Information
Product Specification: PS-51067-020
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51067
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 6.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

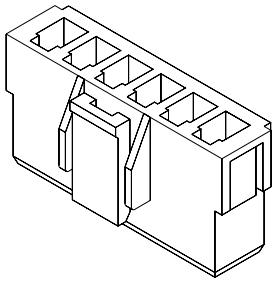
Physical
Housing: Glass-filled PBTP, UL 94V-0
Contact: Brass
Plating: Tin over Nickel

Circuits	Order No.	Lead-free
2	53265-0229	Yes
3	53265-0329	
4	53265-0429	
5	53265-0529	
6	53265-0629	
7	53265-0729	
8	53265-0829	

www.molex.com/customer.html?seriesNumber=53265

3.96mm (.156") Pitch Wire-to-Board Housing

35156
Positive Locking



Features and Benefits
- Sizes 2 to 12 circuits
- Polarized
- Low profile

Reference Information
Product Specification: Refer to Mates With items
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 35313 and 35328 header
Use With: 50217 terminal
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: PBT, UL 94V-0

Circuits	Order No.
2	35156-0200
3	35156-0300
4	35156-0400
5	35156-0500

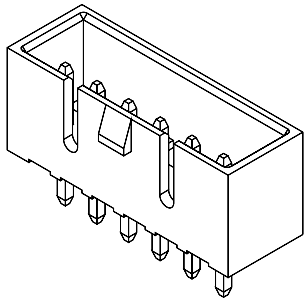
Circuits	Order No.
6	35156-0600
7	35156-0700
8	35156-0800
9	35156-0900

Circuits	Order No.
10	35156-1000
11	35156-1100
12	35156-1200

www.molex.com/customer.html?seriesNumber=35156

3.96mm (.156") Pitch Wire-to-Board Header

35313
Vertical Fully Shrouded



Features and Benefits
- Sizes 2 to 12 circuits
- Low profile
- 1.14mm (.045") square wire pins
- Positive lock

Reference Information
Product Specification: PS-35156-004
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 35156 housing
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0
Contact: Brass
Plating: Tin

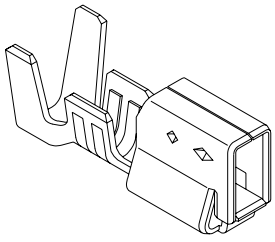
Circuits	Order No.	Lead-free
2	35313-0260	Yes
3	35313-0360	
4	35313-0460	
5	35313-0560	
6	35313-0660	

Circuits	Order No.	Lead-free
9	35313-0960	Yes
10	35313-1060	
11	35313-1160	
12	35313-1260	

www.molex.com/customer.html?seriesNumber=35313

3.96mm (.156") Pitch Wire-to-Board Terminal

50539



Features and Benefits
- Four points of contact for optimum reliability
- Box design protects contact area
- Housing lance feature provides audible click when terminal is fully seated

Reference Information
Use With: 51144
Designed In: Millimeters

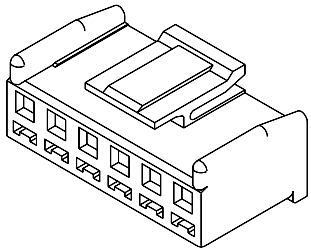
Electrical
Voltage: 250V max.
Current: 6.0A max.

Physical
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 18 to 24 AWG
Insulation Diameter: 1.4 to 3.0mm
Strip Length: 3.0 to 3.5mm

Order No.	Packaging	Lead-free
50539-8000	Reel	Yes
50539-8100	Bag	

3.96mm (.156") Pitch Wire-to-Board Housing

51144
Positive Lock



Features and Benefits
- Sizes 2 to 13 circuits
- Positive lock provides secure mating retention
- Housing lance holds terminal firmly in place

Reference Information
Product Specification: PS-51144-002
Packaging: Bag
UL File No.: E29179
Mates With: 53520 and 53521
Use With: 50539 terminal
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 6.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: PBTP, UL 94V-0

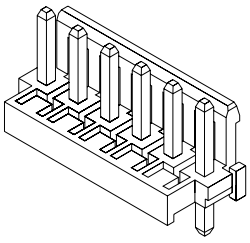
Circuits	Order No.
2	51144-0200
3	51144-0300
4	51144-0400
5	51144-0500
6	51144-0600
7	51144-0700

Circuits	Order No.
8	51144-0800
9	51144-0900
10	51144-1000
11	51144-1100
12	51144-1200
13	51144-1300

www.molex.com/customer.html?seriesNumber=51144

3.96mm (.156") Pitch Wire-to-Board Header

53520
Vertical Expandable Base



Features and Benefits
- Sizes 2 to 12 circuits
- "Accordion" style slots in wafer base enable it to expand and contract to avoid solder cracking
- Positive lock ensures secure retention

Reference Information
Product Specification: PS-51144-002
Packaging: Bag
UL File No.: E29179
Mates With: 51144 housing
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 6.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin over Copper

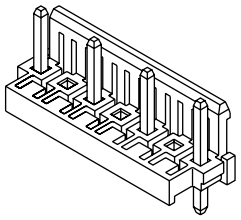
Circuits	Order No.	Lead-free
2	53520-0220	Yes
3	53520-0320	
4	53520-0420	
5	53520-0520	
6	53520-0620	
7	53520-0720	

Circuits	Order No.	Lead-free
8	53520-0820	Yes
9	53520-0920	
10	53520-1020	
11	53520-1120	
12	53520-1220	

www.molex.com/customer.html?seriesNumber=53520

7.92mm (.312") Pitch Wire-to-Board Header

53521
Vertical Expandable Base



Features and Benefits
- Sizes 2 to 7 circuits
- "Accordion" style slots in header base enable it to expand and contract to prevent solder cracking
- Positive lock ensures secure retention

Reference Information
Product Specification: PS-51144-002
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51144 housing
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 6.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

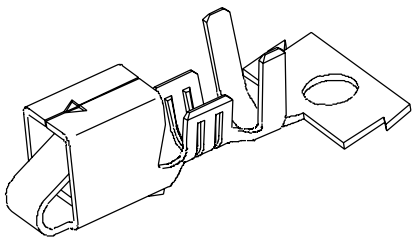
Physical
Housing: Nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin over Copper

Circuits	Order No.	Lead-free
2	53521-0240	Yes
3	53521-0340	
4	53521-0440	
5	53521-0540	
6	53521-0640	
7	53521-0740	

www.molex.com/customer.html?seriesNumber=53521

3.96mm (.156") Pitch Wire-to-Board Terminal

35922



Features and Benefits
- Double cantilever design provides high contact pressure
- Box shroud prevents contamination to the contact surface

Reference Information
Product Specification: PS-35978-001 and PS-35979-001
Use With: 35977

Electrical
Voltage: 250V
Current: See Chart

AWG	18	20
	7.0A	6.0A

Contact Resistance: 10 milliohms max.

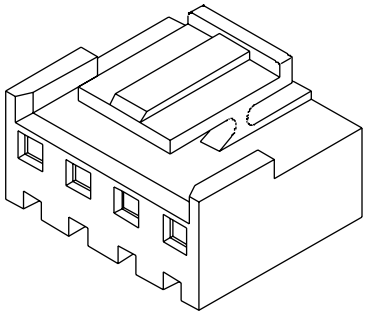
Mechanical
Contact Insertion Force: 14.7N (3.3 lb) max.
Contact Retention to Housing: 24.5N (5.5 lb) min.
Wire Pull-Out Force: 18 AWG—88.3N (19.8 lb) min.
Mating Force: 98.1N (22.0 lb) max.
Unmating Force: 5.9N (1.3 lb) min.
Durability: 30 cycles

Physical
Contact: Brass or Phosphor Bronze
Plating: Tin
Wire Gauge: 18 to 20 AWG

Order No.	Contact	Lead-free
35922-9002	Brass	Yes
35922-8011	Phosphor Bronze	

3.96mm (.156") Pitch Wire-to-Board Housing

35977
Positive Lock



Features and Benefits
- Sizes 2 to 15 circuits
- Positive lock provides secure mating retention
- Polarization prevents mismating

Reference Information
Product Specification: PS-35978-001 and PS-35979-001
Packaging: Bag
Mates With: 35978 and 35979
Use With: 35922
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: PA, UL 94V-0

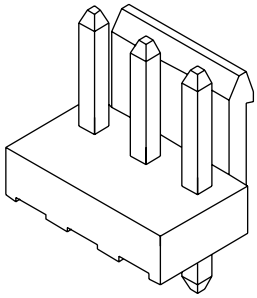
Circuits	Order No.
2	35977-0200
3	35977-0300
4	35977-0400
5	35977-0500
6	35977-0600
7	35977-0700
8	35977-0800

Circuits	Order No.
9	35977-0900
10	35977-1000
11	35977-1100
12	35977-1200
13	35977-1300
14	35977-1400
15	35977-1500

www.molex.com/customer.html?seriesNumber=35977

3.96mm (.156") Pitch Wire-to-Board Header

35978
Vertical



Features and Benefits
- Sizes 2 to 15 circuits
- Polarization prevents mismating
- Low profile for tight packing applications

Reference Information
Product Specification: PS-35978-001
Packaging: Bag
Mates With: 35977
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: PA, UL 94V-0
Contact: Brass
Plating: Tin over Copper

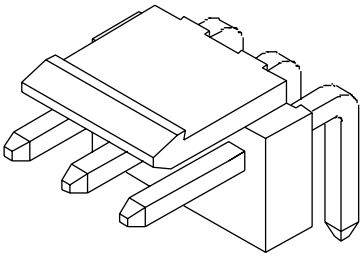
Circuits	Order No.	Lead-free
2	35978-0210	Yes
3	35978-0310	
4	35978-0410	
5	35978-0510	
6	35978-0610	
7	35978-0710	
8	35978-0810	

Circuits	Order No.	Lead-free
9	35978-0910	Yes
10	35978-1010	
11	35978-1110	
12	35978-1210	
13	35978-1310	
14	35978-1410	
15	35978-1510	

www.molex.com/customer.html?seriesNumber=35978

3.96mm (.156") Pitch Wire-to-Board Header

35978
Right Angle



Features and Benefits
- Sizes 2 to 15 circuits
- Polarization prevents mismating
- Low profile for tight packing applications

Reference Information
Product Specification: PS-35978-001
Packaging: Bag
Mates With: 35977
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: PA, UL 94V-0
Contact: Brass
Plating: Tin over Copper

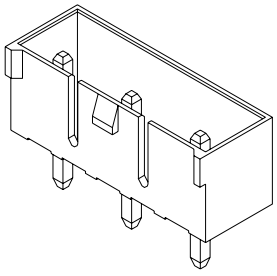
Circuits	Order No.	Lead-free
2	35978-0220	Yes
3	35978-0320	
4	35978-0420	
5	35978-0520	
6	35978-0620	
7	35978-0720	
8	35978-0820	

Circuits	Order No.	Lead-free
9	35978-0920	Yes
10	35978-1020	
11	35978-1120	
12	35978-1220	
13	35978-1320	
14	35978-1420	
15	35978-1520	

www.molex.com/customer.html?seriesNumber=35978

7.92mm (.312") Pitch Wire-to-Board Header

35328
Vertical
Fully Shrouded



Features and Benefits
- Sizes 2 to 6 circuits
- Low profile
- Polarized
- Positive lock

Reference Information
Product Specification: PS-35156-005
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 35156
Designed In: Millimeters

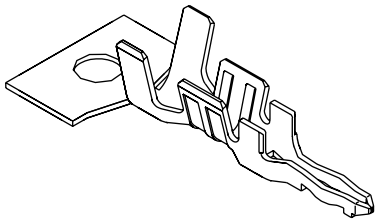
Electrical
Voltage: 250V max.
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Glass-filled Nylon, UL 94V-0
Contact: Brass
Plating: Tin

Circuits	Order No.	Lead-free
2	35328-0260	Yes
3	35328-0360	
5	35328-0560	
6	35328-0660	

4.00mm (.158") Pitch Board-In Terminal

50098



Features and Benefits
- Spring-fit style terminal provides high pressure retention to PCB
- Housing lance provides secure retention to housing and protects terminal
- PCB guide ridge helps position terminal to board

Reference Information
Use With: 51036
Designed In: Millimeters

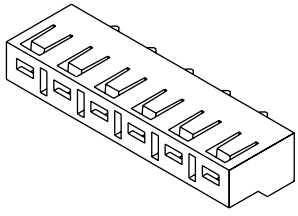
Electrical
Voltage: 250V max.
Current: 5.0A max.

Physical
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 18 to 22 AWG
0.30 to 0.85 sq. AVS
0.50 to 0.85 sq. AV
Insulation Range: 2.60mm dia. max.
Strip Length: 2.50 to 3.00mm

Order No.	Packaging	Lead-free
50098-8000	Reel	Yes
50098-8100	Bag	

4.00mm (.158") Pitch Board-In Housing

51036



Features and Benefits
- Sizes 2 to 15 circuits
- Housing lance provides secure terminal retention and protection

Reference Information
Product Specification: PS-51036-002
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Use With: 50098
Designed In: Millimeters

Electrical
Voltage: 250V max.
Current: 5.0A max.
Contact Resistance: 5 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

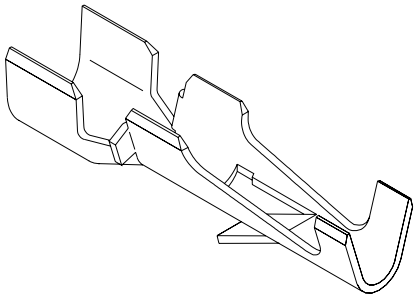
Physical
Housing: Nylon, UL 94V-0

Circuits	Order No.
2	51036-0200
3	51036-0300
4	51036-0400
5	51036-0500
6	51036-0600
7	51036-0700
8	51036-0800

Circuits	Order No.
9	51036-0900
10	51036-1000
11	51036-1100
12	51036-1200
13	51036-1300
14	51036-1400
15	51036-1500

PC Board Crimp Terminal

5190-01T
Stand Alone
Board-In



Features and Benefits
- Secures wire to PC board before wave soldering
- Rapid and economical means of hand wiring PC boards
- Wire solders directly to PC board
- No additional contact resistance
- Low profile
- Recommended PC board hole diameter 1.24 ± 0.08mm (.048 ± .003") for 1.57mm (.062") thick PC board

Reference Information
Product Specification: PS-5190-001
Packaging: Reel
UL File No.: E29179
Designed In: Millimeters

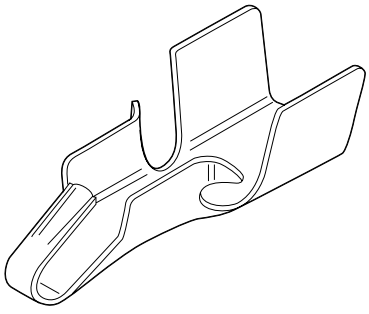
Physical
Contact: Brass
Plating: Tin
Strip Length: 6.0 to 6.6mm

Order No.	Wire Gauge AWG	Insulation Diameter	Lead-free
08-70-0060	22-26	1.70 max.	Yes

www.molex.com/product/board_in.html

PC Board Crimp Terminal

90198
Stand Alone
Board-In



Features and Benefits
- Terminal locking lance holds wire in PCB for soldering
- Design allows both wire and terminal to be soldered and assures proper solder flow
- Insulation support prevents damage to the wire or solder joint
- Low profile—total height above PCB is less than most components (2.80mm/.106")
- No terminal resistance, resistance is limited to integrity of the solder joint

Reference Information
Product Specification: PS-90198
Tooling Information: See Application Tooling section
UL File No.: E29179

Mechanical
Insertion Force to PCB: 2.5 lb max.

Physical
Contact: Phosphor Bronze
Plating: 1µm Hot Tin
PCB Mounting Hole Diameter:
22 AWG—1.23-1.30mm (.048-.051")
24 and 26 AWG—1.17-1.25mm (.046-.049")
(for 1.37-1.77mm/.054-.070" thick PCB)

Order No.	Wire Gauge AWG	Insulation (Max.)	Lead-free
90198-0001	22, 24, 26	1.52 (.060)	Yes

Note: Product specifications are dependent on the PCB, solder and wire to be used.

1.27mm (.050") Pitch Single/Dual Row Custom Headers

Features and Benefits

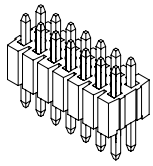
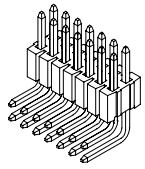
- Sizes 4 to 80 circuits
- Available with stand-off version
- Available with and without locating peg
- Available with and without cap

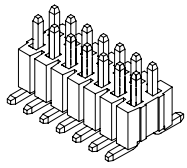
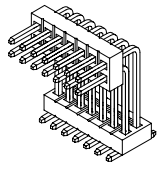
Electrical

Voltage: 125V
Current: 1.0A
Dielectric Withstanding Voltage: 250V
Insulation Resistance: 100 Megohms min.

Physical

Housing: High-temperature black glass-filled thermoplastic, UL 94V-0
Contact: 0.40mm (.016") square copper alloy
Plating: Tin, Gold flash or 10, 15 or 30µ" select Gold

	Dual Body Options	Series
	Through Hole	87932
	Right Angle	87934

	Dual Body Options	Series
	SMT	87933
	SMT with Right Angle	87980

2.00mm (.079") Pitch Single/Dual Row Custom Headers

Features and Benefits

- Sizes 2 to 50 circuits
- Available with and without locating peg
- Available with and without cap

Reference Information

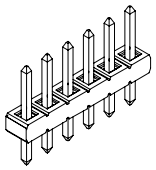
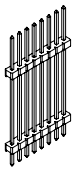
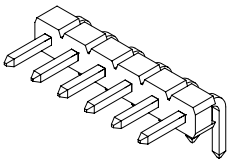
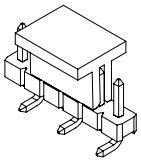
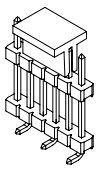
Mates With: 56110, 79107, 79108, 79109, 87263, 87264, 87340, 87365, 87381

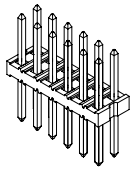
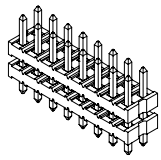
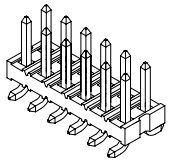
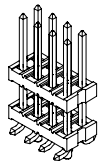
Electrical

Voltage: 125V
Current: 2.0A
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

Physical

Housing: High-temperature 4/6 Nylon, UL 94V-0
Contact: 0.50mm (.020") square copper
Plating: Tin, Gold flash or 10, 15 or 30µ" select Gold

	Single Body Options	Series
	Through Hole	87752
		87755
	Right Angle	87754
	SMT	87753
		87756

	Dual Body Options	Series
	Through Hole	87758
		87761
	SMT	87759
		87762

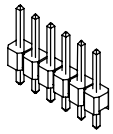
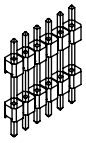
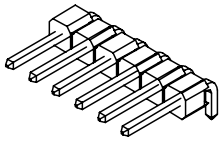
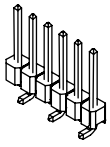
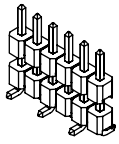
2.54mm (.100") Pitch Single/Dual Row Custom Headers

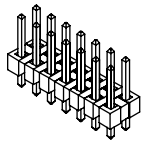
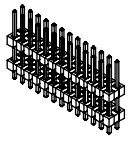
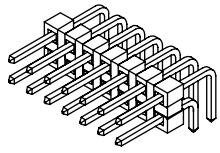
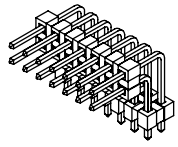
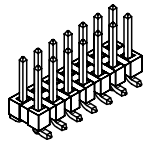
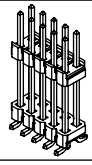
Features and Benefits
- Sizes 2 to 100 circuits (wafer height: 2.29mm)
- Sizes 2 to 80 circuits (wafer height: 2.49mm)
- Available with stand-off version
- Available with and without locating peg
- Available with and without cap

Reference Information
Mates With: 7859 shunts, C-Grind receptacles, SL Crimp and IDT housings

Electrical
Voltage: 250V
Current: 3.0A
Dielectric Withstanding Voltage: 600V
Insulation Resistance: 1000 Megohms min.

Physical
Housing: High-temperature black glass-filled thermoplastic UL 94V-0
Contact: Copper alloy, 0.64mm (.025") square
Plating: Tin, Gold flash or 10, 15 or 30µ" select Gold

	Single Body Options	Series
	Through Hole	87891
	Through Hole	87937
	Right Angle	87897
	SMT	87898
	SMT	87938

	Dual Body Options	Series
	Through Hole	87914
	Through Hole	87797
	Right Angle	87911
	Right Angle	87952
	SMT	87920
	SMT	87939

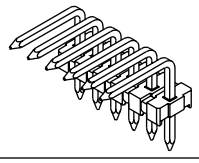
3.96mm (.156") Pitch Single Row Custom Headers

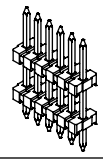
Features and Benefits
- Sizes 2 to 24 circuits
- Optional voided pin version for polarization to the mating part available
- Available with or without cap

Reference Information
Mates With: KK® 3.96mm receptacles
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 7.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 50,000 Megohms min.

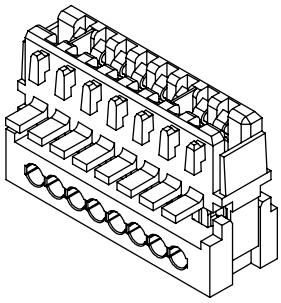
Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Copper Alloy, 1.14mm Square
Plating: Tin or 15µ" select gold

	Single Body Options	Series
	Right Angle Through Hole	68342

	Dual Body Options	Series
	Vertical Through Hole	68344

2.50mm (.098") and 5.00mm (.197") Pitch Appli-Mate™ RAST IDT Connector System Direct Edge Card

91780
With Locking Latch



Circuits	Order No.	Lead-free
4	91780-0501	Yes
8	91780-2501	
9	91780-3001	

Features and Benefits
- Locks directly onto PCB, eliminating the need for a guide frame or header
- Available in 2.50 and 5.00mm pitch to allow use in high and low voltage applications
- Available in a range of circuits sizes, terminal positions, polarizing ribs and keying options.

Reference Information
Product Specification: PS-99020-0040
Packaging: Tray
Designed in: Millimeters

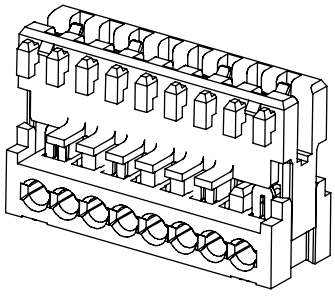
Electrical
Voltage: 2.50mm Pitch—32V
5.00mm Pitch—240V
Current: 2.0 A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Wire Pull-Out Force: 50N per circuit
Mating Force: 4N (0.90 lb)
Unmating Force: 0.5N (0.11 lb)
Durability: 10 cycles

Physical
Housing: Nylon, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Tin
Wire Gauge: 22 to 24 AWG
PCB Thickness: 1.40mm (.056")

5.00mm (.197") Pitch Appli-Mate™ 5.0 RAST IDT Connector System Receptacle Housing

91717
Female, Direct/Indirect



Circuits	Order No.	Lead-free
2	91717-0002	Yes
3	91717-1001	
4	91717-2001	
5	91717-3001	
6	91717-4001	
7	91717-5001	

Features and Benefits
- Complies with RAST 5.0 standard specification
- Molded polarized features
- Two points of contact at interface
- Same connector will mate with male header and direct to PCB
- Suitable for use with 0.22-0.38mm cable
- Manual, semi-automatic and fully-automatic state-of-the-art terminating machines available

Reference Information
Product Specification: PS-99020-0040
Packaging: Tray
Mates With: 90860 and 90861
Designed In: Millimeters

Electrical
Voltage: 60V
Current: 2.0A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Mating Force: 4.00N (0.90 lb)
Unmating Force: 0.50N (0.11 lb)
Durability: 10 cycles

Physical
Housing: Nylon PA6, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Tin

Product Overview E-2

High Power Connector Systems (15 to 60A)

EXTreme LPHPower™ ..... E-3 to E-13
EXTreme Ten60Power™ ..... E-14 to E-17
EXTreme PowerEdge™ ..... E-18 to E-20
Mini-Fit Sr.™ ..... E-21 to E-27
EXTreme ZPower™ E-27
Expandable Power and Signal Connectors – EXTreme PowerPlus™ ..... E-28 to E-31
5.00mm (.197") Pitch Connectors ..... E-32 to E-33
HCS-125 ..... E-34 to E-35
Sabre™ ..... E-36 to E-41
1.80mm (.070") Pitch Connectors – VersaBlade™ ..... E-42 to E-46

Medium to High Power Connector Systems (3 to 5A)

Standard .093" and 3191 Pin and Socket ..... E-47 to E-51
MLX™ ..... E-52 to E-54
6.50mm (.256") Pitch Wire-to-Board Connectors ..... E-55 to E-56
Mini-Fit® Overview ..... E-57 to E-58
Mini-Fit Plus™ ..... E-59 to E-60
Mini-Fit Jr.™ ..... E-61 to E-67
Mini-Fit Plus HCS™ ..... E-68 to E-72
Mini-Fit BMI™ ..... E-73 to E-79
Mini-Fit Plus HMC™ ..... E-80 to E-83
Mini-Fit TPA™ ..... E-84 to E-86
Mini-Fit RTC™ E-87
Mini-Fit PCIe ..... E-88 to E-90
Mini-Fit Family Test Plug E-90

Low Power Connector Systems (3 to 5A)

Micro-Fit 3.0™ ..... E-91 to E-105
Micro-Fit 3.0 BMI™ ..... E-105 to E-108
Micro-Fit 3.0 BMI CPI™ ..... E-108 to E-109
Standard .062" Pin and Socket ..... E-110 to E-111
2.50mm (.098") Pitch Connectors E-112

Specialty Power Connectors

PC Board Terminals E-112
Panel Grounding Clip E-113
Cluster Block Connectors E-113
3-in-1 Combo Connector E-114
Battery Connectors ..... E-114 to E-115

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

Power Connectors

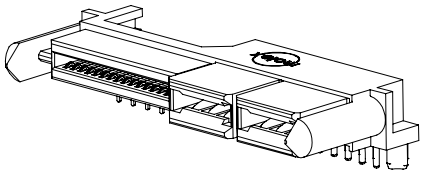
REFERENCE CHART											
	Description	Current Ratings at Smallest/ Largest Circuit Size	Operating Voltage	Housing Lock Method	Configurations Available	Connector Engaging Force Per Circuit	Fully-Isolated Contacts	Agency Ratings	Circuit Sizes Available	Wire Gauge	Flammability Rating
EXTreme Ten60™	Ten60 is a custom configurable connector system featuring a module design giving it the flexibility to provide virtually any arrangement of AC Power, DC Power, and signal lines	60/47A	600V	None	B-to-B	1.68 lbs.[5]	No	UL CSA TUV	1-10 for Power, 6-36 for Signal	N/A	94V-0
Mini-Fit Sr.™	Mini-Fit Sr. is Molex's most robust power connector capable of carrying up to 50 amperes per circuit using 8 AWG wire	50/36A	600V	Pos.	W-to-W, W-to-B	6.61 lbs.	Yes	UL CSA TUV	2, 3, 4, 5, 6, 8, 10, 12, 14	8, 10, 12, 14, 16	94V-0
EXTreme PowerEdge™	Power Edge is vertical, high current connector assembly for mating to a .062" thick card edge or bus bar. Individual assemblies are available in power, signal or mixed power and signal orientations	40/26[1]	250V	None	B-to-B	2.0 lbs., 0.31 lbs.[2]	No	UL CSA TUV	2-8 for Power, 16-32 for Signal	N/A	94V-0
EXTreme LPHPower™	LPH is a versatile, co-planer board-to-board connector system combining signal and power circuits. Its low profile design enhances system airflow	30/22A[3]	250V	None	B-to-B	1.54 lbs., 0.24 lbs.[4]	Yes	UL CSA TUV	12-40 for Signal, 4-10 for Power	N/A	94V-0
HCS-125	HCS-125 is a high current, economical power connector capable of carrying up to 20 amperes per circuit in a wire-to-wire configuration	20/20A	600V	Pas.	W-to-W	5.75 lbs.	Yes	UL CSA TUV	1, 2, 3, 4	10-14, 16-18	94V-2
Sabre™	Sabre's current carrying capability fits between the Mini-Fit Jr. and Mini-Fit Sr. offering up to 18 amperes per circuit at 600 volts	18/18A	600V	Pos.	W-to-W, W-to-B	3.0 lbs.	Yes	UL CSA	2, 3, 4, 5, 6	14-18	94V-2 94V-0
Versablade™	VersaBlade's 1.80mm (.070") wire-to-wire connectors are designed around an industry standard 070" width male "tab" style terminal	15A	300V	Pos.	W-to-W	2.3 lbs.	Yes	UL TUV	1, 2, 3, 4, 6	14-22	94V-0
Standard .093"	The .093" is an industry standard connector system utilized in many different power applications	14/9.5A*	250V	Pas.	W-to-W, W-to-B	3.5 lbs.	Yes	UL CSA	1, 2, 3, 4, 5, 6, 9, 12, 15	14-30	94V-2
3191	The 3191 series is a positive locking, 600V connector system that uses Standard .093" terminals	12/9A*	600V	Pos.	W-to-W, W-to-B	3.5 lbs.	Yes	UL CSA TUV	1, 2, 3, 4, 6, 9, 12, 15	14-30	94V-2 94V-0
MLX	The MLX family is an industry compatible line of 2.13mm (.084") diameter plug, cap, and header connections. It is intermountable, intermateable, and interchangeable with industry standard products	13.5/11A	600V	Pos.	W-to-W, W-to-B	1.51 lbs.	Yes	UL CSA	1, 2, 3, 4, 6, 9, 12, 15	14-20, 13-16, 10-12	94V-2 94V-0
Mini-Fit Plus HCS™	Mini-Fit Plus HCS (High Current System) is capable of carrying up to 12 amperes per circuit. The terminals fit in all Mini-Fit plugs and receptacles	12/11A	600V	Pos.	W-to-W, W-to-B, B-to-B	1.54 lbs.	Yes	Pending	2, 3, 4, 5, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	16, 18-20	94V-2 94V-0
Mini-Fit Plus HMC™	Mini-Fit High Cycle is capable of mated and unmated hundreds of times and still provide reliable electrical connections. It is available only in the BMI format	12/11A	600V	None	W-to-W, W-to-B, B-to-B	1.54 lbs.	Yes	Pending	4, 6, 10, 14, 18, 24	16, 18-20, 22-24	94V-0
Mini-Fit Jr.™	Mini-Fit Jr. is a high current/high density power connector offering great design flexibility for W-to-W and W-to-B housing configurations	9/6A	600V	Pos.	W-to-W, W-to-B	1.54 lbs.	Yes	UL CSA TUV	2, 3, 4, 5, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	16, 18-20, 22-24	94V-2 94V-0
Mini-Fit TPA™	Mini-Fit TPA allows terminals to be fully seated in the housing assuring that they will not back out, providing added security with a secondary locking mechanism	9/6A	600V	Pos.	W-to-W, W-to-B	1.54 lbs.	Yes	UL CSA TUV	2, 4, 6, 8, 10, 12, 16	16, 18-24, 22-28	94V-0
Mini-Fit BMI™ (SMC)	Mini-Fit SMC is made of high temperature material which allows it to withstand the wave/IR soldering processes	12/11A	600V	None	W-to-B, B-to-B	1.54 lbs.	Yes	UL CSA TUV	4, 6, 10, 14, 18, 24	16, 18-20	94V-0
Mini-Fit BMI™	Mini-Fit BMI (Blind Mate Interface) power connectors are designed for applications requiring the blind mating of modules, subassemblies or printed circuit boards	8/6A	600V	None	W-to-W, W-to-B, B-to-B	1.54 lbs	Yes	UL CSA TUV	4, 6, 10, 14, 18, 24, 36, 40	16, 18-20, 22-24	94V-2 94V-0
Mini-Fit BMI™ (CPI)	Mini-Fit BMI™ CPI offers a unique compliant pin design which requires no soldering	7A	600V	None	W-to-B, B-to-B	1.54 lbs.	Yes	UL CSA TUV	4, 6, 10, 14, 18, 24	16, 18-20, 22-24	94V-0
KK®-156 KK-100	Molex KK is a complete interconnection system for W-to-W and B-to-B applications in .100", .156" and .200" centerlines	7/5A	250V	Pas.	W-to-W, W-to-B	2.25 lbs.	Yes	UL CSA TUV	2-20	18-22	94V-2 94V-0
Micro-Fit 3.0™	Micro-Fit 3.0 is a unique interconnect system designed to meet the need for a rugged signal connector and incorporates many of the features previously found only on larger power connectors	5/1A	250V	Pos.	W-to-W, W-to-B	2.2 lbs.	Yes	UL CSA TUV	2, 3, 4, 5, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	22, 24, 26, 28, 30	94V-0
Micro-Fit 3.0 BMI™	Micro-Fit 3.0 BMI (Blind Mate Interface) features a self-guiding funnel, allowing connections in those hard to reach applications	5/1A	250V	None	W-to-W, W-to-B, B-to-B	2.2 lbs.	Yes	UL CSA TUV	2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	20, 22, 24, 26, 28, 30	94V-0
Standard .062"	The .062" is a durable and economical power or signal connector, capable of carrying up to 5.0 amperes per circuit	5/4A	250V	Pas.	W-to-W	2.3 lbs.	Yes	UL CSA TUV	1, 2, 3, 4, 5, 6, 9, 12, 15, 24, 36	18-24, 24-30	94V-2

N/A—Not Applicable
[1]Power Edge signal contacts are rated at 3A and 250V per circuit. See product series 45844, 45845, 45911 and 45912 for more information.
[2]Power contact engagement force is 2.0 lbs.; signal contact engagement force 0.31 lbs.
[3]LPH signal contacts for product series 45984 and 45985 are rated at 1A and 250V per circuit.
[4]Power contact engagement force is 1.54 lbs.; Signal contact engagement force is 0.24 lbs.
*3 additional amperes per circuit can be achieved when used with High Current terminals.
[5]Mating force is based on Vertical Power Receptacle. See product specification for Signal and Right Angle Power.

EXTreme LPHPower™ Low Profile Hybrid PCB Receptacle

45984

Right Angle, 4 Power Contacts



Features and Benefits

- Low Profile Hybrid (LPH) receptacle header combines mixed power and signal contacts for high current, coplanar, board-to-board applications
- Horizontal contact design provides low profile height at only 7.49mm (.295") max. for improved air flow

Reference Information

Product Specification: PS-45984-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 45985 headers or 1.57mm (.062") thick card edge
Designed In: Millimeters

Electrical

Voltage: 250V
Current: Power Contacts—30.0A max.
Signal Contacts—1.0A max.
Current Interruption: Power—30.0A at 42VDC
Signal—1.0A at 30V
Contact Resistance: Power Contacts—0.75 milliohms max.
Signal Contacts—15 milliohms max.
Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force: Single Power Contact—6.87N (1.54 lb.) Nom.
Single Signal Contact—1.08N (0.24 lb.) Nom.
Unmating Force:
Single Power Contact—5.88N (1.32 lb.) Nom.
Single Signal Contact—0.02N (0.03 lb.) Nom.
Durability: 250 Cycles

Physical

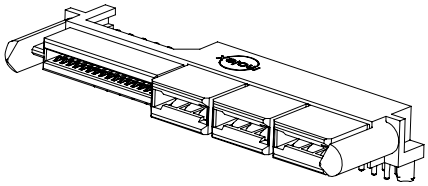
Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Select Gold
Solder Tail Area—Tin
Underplating—Nickel

No. of Signal Pins	Order No.				PC Tail Length	PCB Thickness	Lead-free
	No PCB Pegs or BMI Guides	BMI Guides, No PCB Pegs	PCB Pegs, No BMI Guides	PCB Pegs and BMI Guides			
0	45984-4911	45984-4912	45984-4913	45984-4914	4.50mm (.177")	3.18mm (.125")	Yes
12	45984-4111	45984-4211	45984-4311	45984-4411			
16	45984-4121	45984-4221	45984-4321	45984-4421			
20	45984-4131	45984-4231	45984-4331	45984-4431			
24	45984-4141	45984-4241	45984-4341	45984-4441			
28	45984-4151	45984-4251	45984-4351	45984-4451			
32	45984-4161	45984-4261	45984-4361	45984-4461			
36	45984-4171	45984-4271	45984-4371	45984-4471			
40	45984-4181	45984-4281	45984-4381	45984-4481			
0	45984-4921	45984-4922	45984-4923	45984-4924	3.60mm (.143")	2.36mm (.093")	
12	45984-4112	45984-4212	45984-4312	45984-4412			
16	45984-4122	45984-4222	45984-4322	45984-4422			
20	45984-4132	45984-4232	45984-4332	45984-4432			
24	45984-4142	45984-4242	45984-4342	45984-4442			
28	45984-4152	45984-4252	45984-4352	45984-4452			
32	45984-4162	45984-4262	45984-4362	45984-4462			
36	45984-4172	45984-4272	45984-4372	45984-4472			
40	45984-4182	45984-4282	45984-4382	45984-4482			
0	45984-4931	45984-4932	45984-4933	45984-4934	2.90mm (.114")	1.57mm (.062")	
12	45984-4113	45984-4213	45984-4313	45984-4413			
16	45984-4123	45984-4223	45984-4323	45984-4423			
20	45984-4133	45984-4233	45984-4333	45984-4433			
24	45984-4143	45984-4243	45984-4343	45984-4443			
28	45984-4153	45984-4253	45984-4353	45984-4453			
32	45984-4163	45984-4263	45984-4363	45984-4463			
36	45984-4173	45984-4273	45984-4373	45984-4473			
40	45984-4183	45984-4283	45984-4383	45984-4483			

EXTreme LPHPower™ Low Profile Hybrid PCB Receptacle

45984

Right Angle, 6 Power Contacts



Features and Benefits

- Low Profile Hybrid (LPH) receptacle header combines mixed power and signal contacts for high current, coplanar, board-to-board applications
- Horizontal contact design provides low profile height at only 7.49mm (.295") max. for improved air flow

Reference Information

Product Specification: PS-45984-001
Packaging: Tray
UL File No.: E29179
Mates With: 45985 Headers or 1.57mm (.062") thick card edge
Designed In: Millimeters

Electrical

Voltage: 250V
Current: Power Contacts—30.0A max.
Signal Contacts—1.0A max.
Current Interruption: Power—30.0A at 42VDC
Signal—1.0A at 30V
Contact Resistance: Power Contacts—0.75 milliohms max.
Signal Contacts—15 milliohms max.
Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force: Single Power Contact—6.87N (1.54 lb.) Nom.
Single Signal Contact—1.08N (0.24 lb.) Nom.
Unmating Force:
Single Power Contact—5.88N (1.32 lb.) Nom.
Single Signal Contact—0.02N (0.03 lb.) Nom.
Durability: 250 Cycles

Physical

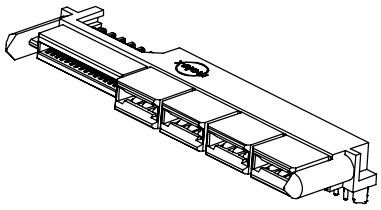
Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Select Gold
Solder Tail Area—Tin
Underplating—Nickel

No. of Signal Pins	Order No.				PC Tail Length	PCB Thickness	Lead-free
	No PCB Pegs or BMI Guides	BMI Guides, No PCB Pegs	PCB Pegs, No BMI Guides	PCB Pegs and BMI Guides			
0	45984-6911	45984-6912	45984-6913	45984-6914	4.50mm (.177")	3.18mm (.125")	Yes
12	45984-6111	45984-6211	45984-6311	45984-6411			
16	45984-6121	45984-6221	45984-6321	45984-6421			
20	45984-6131	45984-6231	45984-6331	45984-6431			
24	45984-6141	45984-6241	45984-6341	45984-6441			
28	45984-6151	45984-6251	45984-6351	45984-6451			
32	45984-6161	45984-6261	45984-6361	45984-6461			
36	45984-6171	45984-6271	45984-6371	45984-6471			
40	45984-6181	45984-6281	45984-6381	45984-6481			
0	45984-6921	45984-6922	45984-6923	45984-6924	3.60mm (.143")	2.36mm (.093")	
12	45984-6112	45984-6212	45984-6312	45984-6412			
16	45984-6122	45984-6222	45984-6322	45984-6422			
20	45984-6132	45984-6232	45984-6332	45984-6432			
24	45984-6142	45984-6242	45984-6342	45984-6442			
28	45984-6152	45984-6252	45984-6352	45984-6452			
32	45984-6162	45984-6262	45984-6362	45984-6462			
36	45984-6172	45984-6272	45984-6372	45984-6472			
40	45984-6182	45984-6282	45984-6382	45984-6482			
0	45984-6931	45984-6932	45984-6933	45984-6934	2.90mm (.114")	1.57mm (.062")	
12	45984-6113	45984-6213	45984-6313	45984-6413			
16	45984-6123	45984-6223	45984-6323	45984-6423			
20	45984-6133	45984-6233	45984-6333	45984-6433			
24	45984-6143	45984-6243	45984-6343	45984-6443			
28	45984-6153	45984-6253	45984-6353	45984-6453			
32	45984-6163	45984-6263	45984-6363	45984-6463			
36	45984-6173	45984-6273	45984-6373	45984-6473			
40	45984-6183	45984-6283	45984-6383	45984-6483			

EXTreme LPHPower™ Low Profile Hybrid PCB Receptacle

45984

Right Angle, 8 Power Contacts



Features and Benefits

- Low Profile Hybrid (LPH) receptacle header combines mixed power and signal contacts for high current, coplanar, board-to-board applications
- Horizontal contact design provides low profile height at only 7.49mm (.295") max. for improved air flow

Reference Information

Product Specification: PS-45984-001
Packaging: Tray
UL File No.: E29179
Mates With: 45985 Headers or 1.57mm (.062") thick card edge
Designed In: Millimeters

Electrical

Voltage: 250V
Current: Power Contacts—30.0A max.
Signal Contacts—1.0A max.
Current Interruption: Power—30.0A at 42VDC
Signal—1.0A at 30V
Contact Resistance: Power Contacts—0.75 milliohms max.
Signal Contacts—15 milliohms max.
Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force: Single Power Contact—6.87N (1.54 lb.) Nom.
Single Signal Contact—1.08N (0.24 lb.) Nom.
Unmating Force:
Single Power Contact—5.88N (1.32 lb.) Nom.
Single Signal Contact—0.02N (0.03 lb.) Nom.
Durability: 250 Cycles

Physical

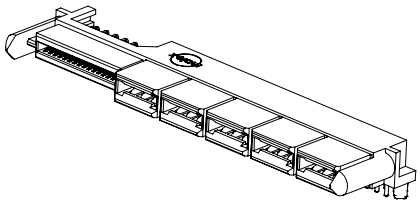
Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Select Gold
Solder Tail Area—Tin
Underplating—Nickel

No. of Signal Pins	Order No.				PC Tail Length	PCB Thickness	Lead-free
	No PCB Pegs or BMI Guides	BMI Guides, No PCB Pegs	PCB Pegs, No BMI Guides	PCB Pegs and BMI Guides			
0	45984-8911	45984-8912	45984-8913	45984-8914	4.50mm (.177")	3.18mm (.125")	Yes
12	45984-8111	45984-8211	45984-8311	45984-8411			
16	45984-8121	45984-8221	45984-8321	45984-8421			
20	45984-8131	45984-8231	45984-8331	45984-8431			
24	45984-8141	45984-8241	45984-8341	45984-8441			
28	45984-8151	45984-8251	45984-8351	45984-8451			
32	45984-8161	45984-8261	45984-8361	45984-8461			
36	45984-8171	45984-8271	45984-8371	45984-8471			
40	45984-8181	45984-8281	45984-8381	45984-8481			
0	45984-8921	45984-8922	45984-8923	45984-8924	3.60mm (.143")	2.36mm (.093")	
12	45984-8112	45984-8212	45984-8312	45984-8412			
16	45984-8122	45984-8222	45984-8322	45984-8422			
20	45984-8132	45984-8232	45984-8332	45984-8432			
24	45984-8142	45984-8242	45984-8342	45984-8442			
28	45984-8152	45984-8252	45984-8352	45984-8452			
32	45984-8162	45984-8262	45984-8362	45984-8462			
36	45984-8172	45984-8272	45984-8372	45984-8472			
40	45984-8182	45984-8282	45984-8382	45984-8482			
0	45984-8931	45984-8932	45984-8933	45984-8934	2.90mm (.114")	1.57mm (.062")	
12	45984-8113	45984-8213	45984-8313	45984-8413			
16	45984-8123	45984-8223	45984-8323	45984-8423			
20	45984-8133	45984-8233	45984-8333	45984-8433			
24	45984-8143	45984-8243	45984-8343	45984-8443			
28	45984-8153	45984-8253	45984-8353	45984-8453			
32	45984-8163	45984-8263	45984-8363	45984-8463			
36	45984-8173	45984-8273	45984-8373	45984-8473			
40	45984-8183	45984-8283	45984-8383	45984-8483			

EXTreme LPHPower™ Low Profile Hybrid PCB Receptacle

45984

Right Angle, 10 Power Contacts



Features and Benefits

- Low Profile Hybrid (LPH) receptacle header combines mixed power and signal contacts for high current, coplanar, board-to-board applications
- Horizontal contact design provides low profile height at only 7.49mm (.295") max. for improved air flow

Reference Information

Product Specification: PS-45984-001
Packaging: Tray
UL File No.: E29179
Mates With: 45985 headers or 1.57mm (.062") thick card edge
Designed In: Millimeters

Electrical

Voltage: 250V
Current: Power Contacts—30.0A max.
Signal Contacts—1.0A max.
Current Interruption: Power—30.0A at 42VDC
Signal—1.0A at 30V
Contact Resistance: Power Contacts—0.75 milliohms max.
Signal Contacts—15 milliohms max.
Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force: Single Power Contact—6.87N (1.54 lb.) Nom.
Single Signal Contact—1.08N (0.24 lb.) Nom.
Unmating Force:
Single Power Contact—5.88N (1.32 lb.) Nom.
Single Signal Contact—0.02N (0.03 lb.) Nom.
Durability: 250 Cycles

Physical

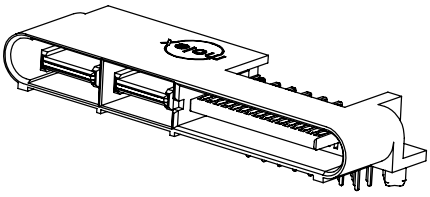
Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Select Gold
Solder Tail Area—Tin
Underplating—Nickel

No. of Signal Pins	Order No.				PC Tail Length	PCB Thickness	Lead-free
	No PCB Pegs or BMI Guides	BMI Guides, No PCB Pegs	PCB Pegs, No BMI Guides	PCB Pegs and BMI Guides			
0	45984-1911	45984-1912	45984-1913	45984-1914	4.50mm (.177")	3.18mm (.125")	Yes
12	45984-1111	45984-1211	45984-1311	45984-1411			
16	45984-1121	45984-1221	45984-1321	45984-1421			
20	45984-1131	45984-1231	45984-1331	45984-1431			
24	45984-1141	45984-1241	45984-1341	45984-1441			
28	45984-1151	45984-1251	45984-1351	45984-1451			
32	45984-1161	45984-1261	45984-1361	45984-1461			
36	45984-1171	45984-1271	45984-1371	45984-1471			
40	45984-1181	45984-1281	45984-1381	45984-1481			
0	45984-1921	45984-1922	45984-1923	45984-1924	3.60mm (.143")	2.36mm (.093")	
12	45984-1112	45984-1212	45984-1312	45984-1412			
16	45984-1122	45984-1222	45984-1322	45984-1422			
20	45984-1132	45984-1232	45984-1332	45984-1432			
24	45984-1142	45984-1242	45984-1342	45984-1442			
28	45984-1152	45984-1252	45984-1352	45984-1452			
32	45984-1162	45984-1262	45984-1362	45984-1462			
36	45984-1172	45984-1272	45984-1372	45984-1472			
40	45984-1182	45984-1282	45984-1382	45984-1482			
0	45984-1931	45984-1932	45984-1933	45984-1934	2.90mm (.114")	1.57mm (.062")	
12	45984-1113	45984-1213	45984-1313	45984-1413			
16	45984-1123	45984-1223	45984-1323	45984-1423			
20	45984-1133	45984-1233	45984-1333	45984-1433			
24	45984-1143	45984-1243	45984-1343	45984-1443			
28	45984-1153	45984-1253	45984-1353	45984-1453			
32	45984-1163	45984-1263	45984-1363	45984-1463			
36	45984-1173	45984-1273	45984-1373	45984-1473			
40	45984-1183	45984-1283	45984-1383	45984-1483			

EXTreme LPHPower™ Low Profile Hybrid Header

45985

Right Angle, 4 Power Contacts



Features and Benefits

- Low Profile Hybrid (LPH) receptacle header combines mixed power and signal contacts for high current, coplanar, board-to-board applications
- Horizontal contact design provides low profile height at only 7.49mm (.295") max. for improved air flow

Reference Information

Product Specification: PS-45984-001
Packaging: Tray
UL File No.: E29179
Mates With: 45984 receptacles
Designed In: Millimeters

Electrical

Voltage: 250V
Current: Power Contacts—30.0A max.
Signal Contacts—1.0A max.
Current Interruption: Power—30.0A at 42VDC
Signal—1.0A at 30V
Contact Resistance: Power Contacts—0.75 milliohms max.
Signal Contacts—15 milliohms max.
Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force: Single Power Contact—6.87N (1.54 lb.) Nom.
Single Signal Contact—1.08N (0.24 lb.) Nom.
Unmating Force:
Single Power Contact—5.88N (1.32 lb.) Nom.
Single Signal Contact—0.02N (0.03 lb.) Nom.
Durability: 250 Cycles

Physical

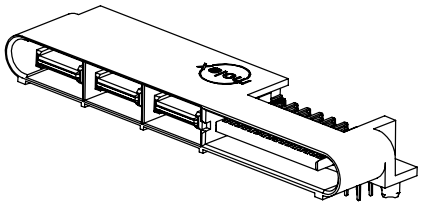
Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Select Gold
Solder Tail Area—Tin
Underplating—Nickel

No. of Signal Pins	Order No.				PC Tail Length	PCB Thickness	Lead-free
	No PCB Pegs or BMI Guides	BMI Guides, No PCB Pegs	PCB Pegs, No BMI Guides	PCB Pegs and BMI Guides			
0	45985-4911	45985-4912	45985-4913	45985-4914	4.50mm (.177")	3.18mm (.125")	Yes
12	45985-4111	45985-4211	45985-4311	45985-4411			
16	45985-4121	45985-4221	45985-4321	45985-4421			
20	45985-4131	45985-4231	45985-4331	45985-4431			
24	45985-4141	45985-4241	45985-4341	45985-4441			
28	45985-4151	45985-4251	45985-4351	45985-4451			
32	45985-4161	45985-4261	45985-4361	45985-4461			
36	45985-4171	45985-4271	45985-4371	45985-4471			
40	45985-4181	45985-4281	45985-4381	45985-4481			
0	45985-4921	45985-4922	45985-4923	45985-4924	3.60mm (.143")	2.36mm (.093")	
12	45985-4112	45985-4212	45985-4312	45985-4412			
16	45985-4122	45985-4222	45985-4322	45985-4422			
20	45985-4132	45985-4232	45985-4332	45985-4432			
24	45985-4142	45985-4242	45985-4342	45985-4442			
28	45985-4152	45985-4252	45985-4352	45985-4452			
32	45985-4162	45985-4262	45985-4362	45985-4462			
36	45985-4172	45985-4272	45985-4372	45985-4472			
40	45985-4182	45985-4282	45985-4382	45985-4482			
0	45985-4931	45985-4932	45985-4933	45985-4934	2.90mm (.114")	1.57mm (.062")	
12	45985-4113	45985-4213	45985-4313	45985-4413			
16	45985-4123	45985-4223	45985-4323	45985-4423			
20	45985-4133	45985-4233	45985-4333	45985-4433			
24	45985-4143	45985-4243	45985-4343	45985-4443			
28	45985-4153	45985-4253	45985-4353	45985-4453			
32	45985-4163	45985-4263	45985-4363	45985-4463			
36	45985-4173	45985-4273	45985-4373	45985-4473			
40	45985-4183	45985-4283	45985-4383	45985-4483			

EXTreme LPHPower™ Low Profile Hybrid Header

45985

Right Angle, 6 Power Contacts



Features and Benefits

- Low Profile Hybrid (LPH) receptacle header combines mixed power and signal contacts for high current, coplanar, board-to-board applications
- Horizontal contact design provides low profile height at only 7.49mm (.295") max. for improved air flow

Reference Information

Product Specification: PS-45984-001
Packaging: Tray
UL File No.: E29179
Mates With: 45984 receptacles
Designed In: Millimeters

Electrical

Voltage: 250V
Current: Power Contacts—30.0A max.
Signal Contacts—1.0A max.
Current Interruption: Power—30.0A at 42VDC
Signal—1.0A at 30V
Contact Resistance: Power Contacts—0.75 milliohms max.
Signal Contacts—15 milliohms max.
Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force: Single Power Contact—6.87N (1.54 lb.) Nom.
Single Signal Contact—1.08N (0.24 lb.) Nom.
Unmating Force:
Single Power Contact—5.88N (1.32 lb.) Nom.
Single Signal Contact—0.02N (0.03 lb.) Nom.
Durability: 250 Cycles

Physical

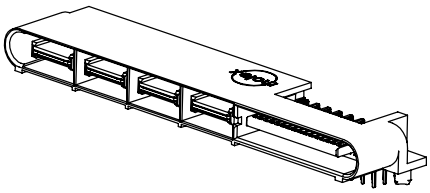
Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Select Gold
Solder Tail Area—Tin
Underplating—Nickel

No. of Signal Pins	Order No.				PC Tail Length	PCB Thickness	Lead-free
	No PCB Pegs or BMI Guides	BMI Guides, No PCB Pegs	PCB Pegs, No BMI Guides	PCB Pegs and BMI Guides			
0	45985-6911	45985-6912	45985-6913	45985-6914	4.50mm (.177")	3.18mm (.125")	Yes
12	45985-6111	45985-6211	45985-6311	45985-6411			
16	45985-6121	45985-6221	45985-6321	45985-6421			
20	45985-6131	45985-6231	45985-6331	45985-6431			
24	45985-6141	45985-6241	45985-6341	45985-6441			
28	45985-6151	45985-6251	45985-6351	45985-6451			
32	45985-6161	45985-6261	45985-6361	45985-6461			
36	45985-6171	45985-6271	45985-6371	45985-6471			
40	45985-6181	45985-6281	45985-6381	45985-6481			
0	45985-6921	45985-6922	45985-6923	45985-6924	3.60mm (.143")	2.36mm (.093")	
12	45985-6112	45985-6212	45985-6312	45985-6412			
16	45985-6122	45985-6222	45985-6322	45985-6422			
20	45985-6132	45985-6232	45985-6332	45985-6432			
24	45985-6142	45985-6242	45985-6342	45985-6442			
28	45985-6152	45985-6252	45985-6352	45985-6452			
32	45985-6162	45985-6262	45985-6362	45985-6462			
36	45985-6172	45985-6272	45985-6372	45985-6472			
40	45985-6182	45985-6282	45985-6382	45985-6482			
0	45985-6931	45985-6932	45985-6933	45985-6934	2.90mm (.114")	1.57mm (.062")	
12	45985-6113	45985-6213	45985-6313	45985-6413			
16	45985-6123	45985-6223	45985-6323	45985-6423			
20	45985-6133	45985-6233	45985-6333	45985-6433			
24	45985-6143	45985-6243	45985-6343	45985-6443			
28	45985-6153	45985-6253	45985-6353	45985-6453			
32	45985-6163	45985-6263	45985-6363	45985-6463			
36	45985-6173	45985-6273	45985-6373	45985-6473			
40	45985-6183	45985-6283	45985-6383	45985-6483			

EXTreme LPHPower™ Low Profile Hybrid Header

45985

Right Angle, 8 Power Contacts



Features and Benefits

- Low Profile Hybrid (LPH) receptacle header combines mixed power and signal contacts for high current, coplanar, board-to-board applications
- Horizontal contact design provides low profile height at only 7.49mm (.295") max. for improved air flow

Reference Information

Product Specification: PS-45984-001
Packaging: Tray
UL File No.: E29179
Mates With: 45984 receptacles
Designed In: Millimeters

Electrical

Voltage: 250V
Current: Power Contacts—30.0A max.
Signal Contacts—1.0A max.
Current Interruption: Power—30.0A at 42VDC
Signal—1.0A at 30V
Contact Resistance: Power Contacts—0.75 milliohms max.
Signal Contacts—15 milliohms max.
Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force: Single Power Contact—6.87N (1.54 lb.) Nom.
Single Signal Contact—1.08N (0.24 lb.) Nom.
Unmating Force:
Single Power Contact—5.88N (1.32 lb.) Nom.
Single Signal Contact—0.02N (0.03 lb.) Nom.
Durability: 250 Cycles

Physical

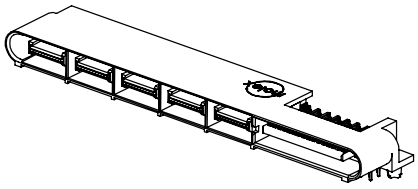
Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Select Gold
Solder Tail Area—Tin
Underplating—Nickel

No. of Signal Pins	Order No.				PC Tail Length	PCB Thickness	Lead-free
	No PCB Pegs or BMI Guides	BMI Guides, No PCB Pegs	PCB Pegs, No BMI Guides	PCB Pegs and BMI Guides			
0	45985-8911	45985-8912	45985-8913	45985-8914	4.50mm (.177")	3.18mm (.125")	Yes
12	45985-8111	45985-8211	45985-8311	45985-8411			
16	45985-8121	45985-8221	45985-8321	45985-8421			
20	45985-8131	45985-8231	45985-8331	45985-8431			
24	45985-8141	45985-8241	45985-8341	45985-8441			
28	45985-8151	45985-8251	45985-8351	45985-8451			
32	45985-8161	45985-8261	45985-8361	45985-8461			
36	45985-8171	45985-8271	45985-8371	45985-8471			
40	45985-8181	45985-8281	45985-8381	45985-8481			
0	45985-8921	45985-8922	45985-8923	45985-8924	3.60mm (.143")	2.36mm (.093")	
12	45985-8112	45985-8212	45985-8312	45985-8412			
16	45985-8122	45985-8222	45985-8322	45985-8422			
20	45985-8132	45985-8232	45985-8332	45985-8432			
24	45985-8142	45985-8242	45985-8342	45985-8442			
28	45985-8152	45985-8252	45985-8352	45985-8452			
32	45985-8162	45985-8262	45985-8362	45985-8462			
36	45985-8172	45985-8272	45985-8372	45985-8472			
40	45985-8182	45985-8282	45985-8382	45985-8482			
0	45985-8931	45985-8932	45985-8933	45985-8934	2.90mm (.114")	1.57mm (.062")	
12	45985-8113	45985-8213	45985-8313	45985-8413			
16	45985-8123	45985-8223	45985-8323	45985-8423			
20	45985-8133	45985-8233	45985-8333	45985-8433			
24	45985-8143	45985-8243	45985-8343	45985-8443			
28	45985-8153	45985-8253	45985-8353	45985-8453			
32	45985-8163	45985-8263	45985-8363	45985-8463			
36	45985-8173	45985-8273	45985-8373	45985-8473			
40	45985-8183	45985-8283	45985-8383	45985-8483			

EXTreme LPHPower™ Low Profile Hybrid Header

45985

Right Angle, 10 Power Contacts



Features and Benefits

- Low Profile Hybrid (LPH) receptacle header combines mixed power and signal contacts for high current, coplanar, board-to-board applications
- Horizontal contact design provides low profile height at only 7.49mm (.295") max. for improved air flow

Reference Information

Product Specification: PS-45984-001
Packaging: Tray
UL File No.: E29179
Mates With: 45984 receptacles
Designed In: Millimeters

Electrical

Voltage: 250V
Current: Power Contacts—30.0A max.
Signal Contacts—1.0A max.
Current Interruption: Power—30.0A at 42VDC
Signal—1.0A at 30V
Contact Resistance: Power Contacts—0.75 milliohms max.
Signal Contacts—15 milliohms max.
Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force: Single Power Contact—6.87N (1.54 lb.) Nom.
Single Signal Contact—1.08N (0.24 lb.) Nom.
Unmating Force:
Single Power Contact—5.88N (1.32 lb.) Nom.
Single Signal Contact—0.02N (0.03 lb.) Nom.
Durability: 250 Cycles

Physical

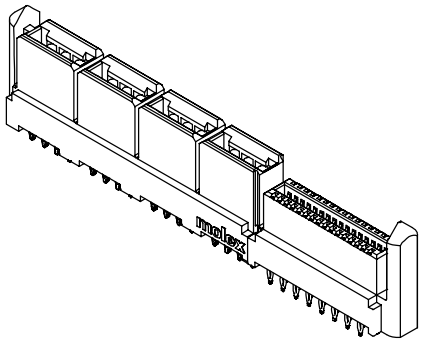
Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Select Gold
Solder Tail Area—Tin
Underplating—Nickel

No. of Signal Pins	Order No.				PC Tail Length	PCB Thickness	Lead-free
	No PCB Pegs or BMI Guides	BMI Guides, No PCB Pegs	PCB Pegs, No BMI Guides	PCB Pegs and BMI Guides			
0	45985-1911	45985-1912	45985-1913	45985-1914	4.50mm (.177")	3.18mm (.125")	Yes
12	45985-1111	45985-1211	45985-1311	45985-1411			
16	45985-1121	45985-1221	45985-1321	45985-1421			
20	45985-1131	45985-1231	45985-1331	45985-1431			
24	45985-1141	45985-1241	45985-1341	45985-1441			
28	45985-1151	45985-1251	45985-1351	45985-1451			
32	45985-1161	45985-1261	45985-1361	45985-1461			
36	45985-1171	45985-1271	45985-1371	45985-1471			
40	45985-1181	45985-1281	45985-1381	45985-1481			
0	45985-1921	45985-1922	45985-1923	45985-1924	3.60mm (.143")	2.36mm (.093")	
12	45985-1112	45985-1212	45985-1312	45985-1412			
16	45985-1122	45985-1222	45985-1322	45985-1422			
20	45985-1132	45985-1232	45985-1332	45985-1432			
24	45985-1142	45985-1242	45985-1342	45985-1442			
28	45985-1152	45985-1252	45985-1352	45985-1452			
32	45985-1162	45985-1262	45985-1362	45985-1462			
36	45985-1172	45985-1272	45985-1372	45985-1472			
40	45985-1182	45985-1282	45985-1382	45985-1482			
0	45985-1931	45985-1932	45985-1933	45985-1934	2.90mm (.114")	1.57mm (.062")	
12	45985-1113	45985-1213	45985-1313	45985-1413			
16	45985-1123	45985-1223	45985-1323	45985-1423			
20	45985-1133	45985-1233	45985-1333	45985-1433			
24	45985-1143	45985-1243	45985-1343	45985-1443			
28	45985-1153	45985-1253	45985-1353	45985-1453			
32	45985-1163	45985-1263	45985-1363	45985-1463			
36	45985-1173	45985-1273	45985-1373	45985-1473			
40	45985-1183	45985-1283	45985-1383	45985-1483			

EXTreme LPHPower™ Low Profile Hybrid PCB Receptacle

46112/46113/46114

Vertical, with Press Fit PCB Tails



Features and Benefits

- Low Profile Hybrid (LPH) receptacle header combines mixed power and signal contacts for high current, right angle board-to-board applications
- Horizontal contact design provides low profile height for improved air flow

Reference Information

Product Specification: PS-46114-001
Packaging: Tube
UL File No.: E29179
Mates With: 45985 Headers or 1.57mm (.062") thick card edge
Designed In: Millimeters

Electrical

Voltage: 250V
Current: Power Contacts—30.0A max.
Signal Contacts—1.0A max.
Current Interruption: Power—30.0A at 42VDC
Signal—1.0A at 30V
Contact Resistance: Power Contacts—0.75 milliohms max.
Signal Contacts—15 milliohms max.
Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force: Single Power Contact—6.87N (1.54 lb.) Nom.
Single Signal Contact—1.08N (0.24 lb.) Nom.
Unmating Force:
Single Power Contact—5.88N (1.32 lb.) Nom.
Single Signal Contact—0.02N (0.03 lb.) Nom.
Durability: 250 Cycles

Physical

Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Select Gold
Solder Tail Area—Tin/Lead available upon request
Underplating—Nickel

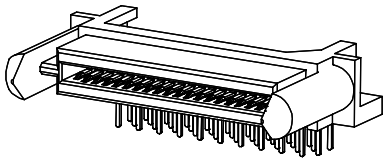
Power Blades	Signal Pins	Without BMI Guides	With BMI Guides	Lead-free
0	12	46113-0121	46113-0123	Yes
	16	46113-0161	46113-0163	
	20	46113-0201	46113-0203	
	24	46113-0241	46113-0243	
	28	46113-0281	46113-0283	
	32	46113-0321	46113-0323	
	36	46113-0361	46113-0363	
	40	46113-0401	46113-0403	
2	0	46112-0201	46112-0203	
	12	46114-2121	46114-2120	
	16	46114-2161	46114-2160	
	20	46114-2201	46114-2200	
	24	46114-2241	46114-2240	
	28	46114-2281	46114-2280	
	32	46114-2321	46114-2320	
	36	46114-2361	46114-2360	
	40	46114-2401	46114-2400	
4	0	46112-0401	46112-0403	
	12	46114-4121	46114-4120	
	16	46114-4161	46114-4160	
	20	46114-4201	46114-4200	
	24	46114-4241	46114-4240	
	28	46114-4281	46114-4280	
	32	46114-4321	46114-4320	
	36	46114-4361	46114-4360	
	40	46114-4401	46114-4400	
6	0	46112-0601	46112-0603	
	12	46114-6121	46114-6120	
	16	46114-6161	46114-6160	
	20	46114-6201	46114-6200	
	24	46114-6241	46114-6240	
	28	46114-6281	46114-6280	
	32	46114-6321	46114-6320	
	36	46114-6361	46114-6360	
	40	46114-6401	46114-6400	

Power Blades	Signal Pins	Without BMI Guides	With BMI Guides	Lead-free
8	0	46112-0801	46112-0803	Yes
	12	46114-8121	46114-8120	
	16	46114-8161	46114-8160	
	20	46114-8201	46114-8200	
	24	46114-8241	46114-8240	
	28	46114-9281	46114-8280	
	32	46114-8321	46114-8320	
	36	46114-8361	46114-8360	
	40	46114-8401	46114-8400	
10	0	46112-1001	46112-1003	
	12	46114-1013	46114-1012	
	16	46114-1017	46114-1016	
	20	46114-1021	46114-1020	
	24	46114-1025	46114-1024	
	28	46114-1029	46114-1028	
	32	46114-1033	46114-1032	
	36	46114-1037	46114-1036	
	40	46114-1041	46114-1040	
12	0	46112-1201	46112-1203	
	12	46114-1213	46114-1212	
	16	46114-1217	46114-1216	
	20	46114-1221	46114-1220	
	24	46114-1225	46114-1224	
	28	46114-1229	46114-1228	
	32	46114-1233	46114-1232	
	36	46114-1237	46114-1236	
	40	46114-1241	46114-1240	
14	0	46112-1401	46112-1403	
	12	46114-1413	46114-1412	
	16	46114-1417	46114-1416	
	20	46114-1421	46114-1420	
	24	46114-1425	46114-1424	
	28	46114-1429	46114-1428	
	32	46114-1433	46114-1432	
	36	46114-1437	46114-1436	
	40	46114-1441	46114-1440	

EXTreme LPHPower™ Low Profile Hybrid PCB Receptacle

45984

Right Angle, Signal Only



Features and Benefits

- Low Profile Hybrid (LPH) signal only receptacle header is designed for coplanar, board-to-board applications
- Horizontal contact design provides low profile height at only 7.49mm (.295") max. for improved air flow

Reference Information

Product Specification: PS-45984-001
Packaging: Tray
UL File No.: E29179
Mates With: 45985 Headers or 1.57mm (.062") thick card edge
Designed In: Millimeters

Electrical

Voltage: 250V
Current: Signal Contacts—1.0A max.
Current Interruption: Signal—1.0A at 30V
Contact Resistance: Signal Contacts—15 milliohms max.
Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force: Single Signal Contact—1.08N (0.24 lb.) Nom.
Unmating Force:
Single Signal Contact—0.02N (0.03 lb.) Nom.
Durability: 250 Cycles

Physical

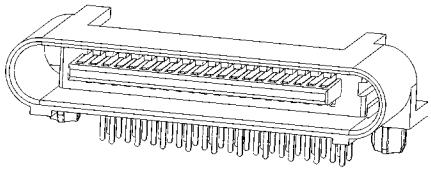
Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Select Gold
Solder Tail Area—Tin
Underplating—Nickel

No. of Signal Pins	Order No.				PC Tail Length	PCB Thickness	Lead-free
	No PCB Pegs or BMI Guides	BMI Guides, No PCB Pegs	PCB Pegs, No BMI Guides	PCB Pegs and BMI Guides			
12	45984-0111	45984-0211	45984-0311	45984-0411	4.50mm (.177")	3.18mm (.125")	Yes
16	45984-0121	45984-0221	45984-0321	45984-0421			
20	45984-0131	45984-0231	45984-0331	45984-0431			
24	45984-0141	45984-0241	45984-0341	45984-0441			
28	45984-0151	45984-0251	45984-0351	45984-0451			
32	45984-0161	45984-0261	45984-0361	45984-0461			
36	45984-0171	45984-0271	45984-0371	45984-0471			
40	45984-0181	45984-0281	45984-0381	45984-0481			
12	45984-0112	45984-0212	45984-0312	45984-0412	3.60mm (.143")	2.36mm (.093")	
16	45984-0122	45984-0222	45984-0322	45984-0422			
20	45984-0132	45984-0232	45984-0332	45984-0432			
24	45984-0142	45984-0242	45984-0342	45984-0442			
28	45984-0152	45984-0252	45984-0352	45984-0452			
32	45984-0162	45984-0262	45984-0362	45984-0462			
36	45984-0172	45984-0272	45984-0372	45984-0472			
40	45984-0182	45984-0282	45984-0382	45984-0482			
12	45984-0113	45984-0213	45984-0313	45984-0413	2.90mm (.114")	1.57mm (.062")	
16	45984-0123	45984-0223	45984-0323	45984-0423			
20	45984-0133	45984-0233	45984-0333	45984-0433			
24	45984-0143	45984-0243	45984-0343	45984-0443			
28	45984-0153	45984-0253	45984-0353	45984-0453			
32	45984-0163	45984-0263	45984-0363	45984-0463			
36	45984-0173	45984-0273	45984-0373	45984-0473			
40	45984-0183	45984-0283	45984-0383	45984-0483			

EXTreme LPHPower™ Low Profile Hybrid PCB Header

45984

Right Angle, Signal Only



Features and Benefits

- Low Profile Hybrid (LPH) signal only header is designed for coplanar, board-to-board applications
- Horizontal contact design provides low profile height at only 7.49mm (.295") max. for improved air flow

Reference Information

Product Specification: PS-45984-001
Packaging: Tray
UL File No.: E29179
Mates With: 45984 signal only receptacles
Designed In: Millimeters

Electrical

Voltage: 250V
Current: Signal Contacts—1.0A max.
Current Interruption: Signal—1.0A at 30V
Contact Resistance: Signal Contacts—15 milliohms max.
Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force: Single Signal Contact—1.08N (0.24 lb.) Nom.
Unmating Force:
Single Signal Contact—0.02N (0.03 lb.) Nom.
Durability: 250 Cycles

Physical

Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Select Gold
Solder Tail Area—Tin
Underplating—Nickel

No. of Signal Pins	Order No.				PC Tail Length	PCB Thickness	Lead-free
	No PCB Pegs or BMI Guides	BMI Guides, No PCB Pegs	PCB Pegs, No BMI Guides	PCB Pegs and BMI Guides			
12	45985-0111	45985-0211	45985-0311	45985-0411	4.50mm (.177")	3.18mm (.125")	Yes
16	45985-0121	45985-0221	45985-0321	45985-0421			
20	45985-0131	45985-0231	45985-0331	45985-0431			
24	45985-0141	45985-0241	45985-0341	45985-0441			
28	45985-0151	45985-0251	45985-0351	45985-0451			
32	45985-0161	45985-0261	45985-0361	45985-0461			
36	45985-0171	45985-0271	45985-0371	45985-0471			
40	45985-0181	45985-0281	45985-0381	45985-0481			
12	45985-0112	45985-0212	45985-0312	45985-0412	3.60mm (.143")	2.36mm (.093")	
16	45985-0122	45985-0222	45985-0322	45985-0422			
20	45985-0132	45985-0232	45985-0332	45985-0432			
24	45985-0142	45985-0242	45985-0342	45985-0442			
28	45985-0152	45985-0252	45985-0352	45985-0452			
32	45985-0162	45985-0262	45985-0362	45985-0462			
36	45985-0172	45985-0272	45985-0372	45985-0472			
40	45985-0182	45985-0282	45985-0382	45985-0482			
12	45985-0113	45985-0213	45985-0313	45985-0413	2.90mm (.114")	1.57mm (.062")	
16	45985-0123	45985-0223	45985-0323	45985-0423			
20	45985-0133	45985-0233	45985-0333	45985-0433			
24	45985-0143	45985-0243	45985-0343	45985-0443			
28	45985-0153	45985-0253	45985-0353	45985-0453			
32	45985-0163	45985-0263	45985-0363	45985-0463			
36	45985-0173	45985-0273	45985-0373	45985-0473			
40	45985-0183	45985-0283	45985-0383	45985-0483			

5.50 (DC) or 7.50mm (AC) Pitch Power 2.54 by 2.54mm Pitch Signal EXTreme Ten60Power™ Board-to-Board High Current Connector

46437
Plug

46436
Right Angle Receptacle

46562
Vertical Receptacle

Ten60 is a custom configurable connector system featuring a module design giving it the flexibility to provide virtually any arrangement of AC Power, DC Power, and signal lines all with three levels of mating. Modules are available in 1-10 DC power blades, 1-6 AC Power Blades, and 6-36 Signal Pins. Modules can be arranged in any combination.

Features and Benefits
- Low-profile design: 10.00mm (.394") height enhances system airflow and provides 260.0A per linear inch
- Robust, high-current contact blades in DC and AC spacing options provides design flexibility
- Multiple mating levels available on power and signal contacts for hot-plug applications
- Module assembly allows for any configuration and can be added to make larger circuit sizes
- Right-angle and vertical mounting available for either coplanar or perpendicular applications
- RoHS compliant

Reference Information
Product Specification: PS-46436-100
Packaging: Tray
UL File No.: E29179
CSA File No.: LR-19980
TUV File No.: R 72081037
Designed In: Millimeters

Electrical
Voltage: Power—600V max.
Signal—250V max.
Current: Power—60.0A max.
Signal—2.5A max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 5000 Megohms min.

Mechanical
Mating Force:
Power Contacts—
Vertical Receptacle: 764g (1.684 lb) max.
Right Angle Receptacle: 460g (1.014 lb) max.
Signal Contacts—75g (.165 lb)
Unmating Force:
Power Contacts—
Vertical Receptacle: 340g (.749 lb) max.
Right Angle Receptacle: 235g (.518 lb) max.
Signal Contacts—30g (.066 lb)
Durability: 100 cycles

Physical
Housing: 30% glass-filled LCP, UL 94V-0
Contact: Power Contacts—Copper Alloy
Signal Contacts—Copper Alloy
Plating: Contact Area—Select Gold
Solder Tail Area—Tin
Underplating—Nickel

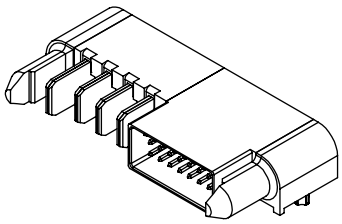
SELECTION GUIDE

Connector Orientation	- Vertical - Right Angle
Termination Method	- Through Hole - Press-Fit - Power-Signal-Power (P-S-P) - Power-Signal (P-S)
Type*	- Power-Signal (P-S) - Power-Signal-Power (Top Guides) (P-S-P (TG)) - Power-Signal-AC Power (P-S-AC) - AC Power-Signal-Power (AC-S-P)
Power and Signal	- Number of DC Power Blades (Example: 2 DC power blades = 2 P) - Number of AC Power Blades (Example: 2 AC power blades = 2 AC) - Number of Signal Pins (Example: 24 signal pins = 24 S)
Guide Post and Board Pegs	- With Guide Post and Pegs - Without Guide Post and Pegs
Pitch	- DC Power: 5.50mm (0.217") Pitch - AC Power: 7.50mm (0.295") Pitch

* For additional Configurations not shown contact Molex

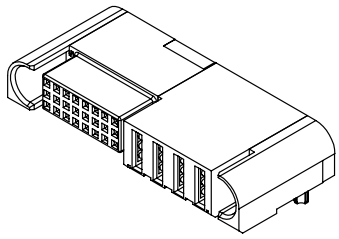
EXTreme Ten60Power™ High Current Connectors

Power-Signal (P-S)

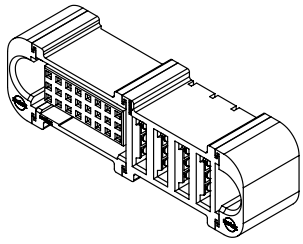


46437
Right Angle,
Through Hole Header

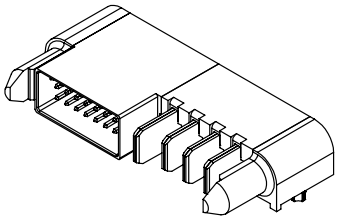
46436
Right Angle,
Through Hole Receptacle



46562
Vertical,
Press-Fit Receptacle

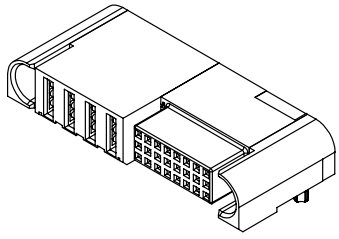


Signal-Power (S-P)

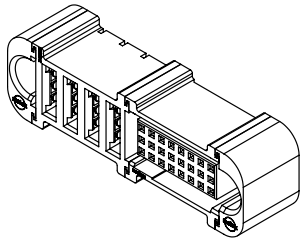


46437
Right Angle,
Through Hole Header

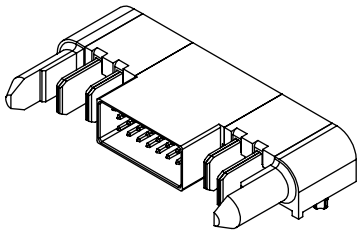
46436
Right Angle,
Through Hole Receptacle



46562
Vertical,
Press-Fit Receptacle

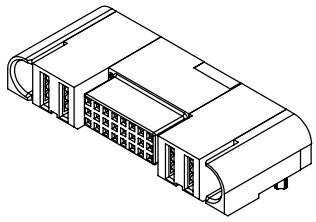


Power-Signal-Power (P-S-P)

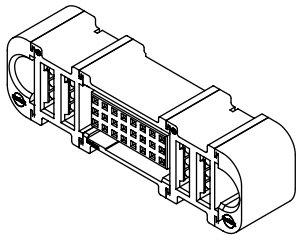


46437
Right Angle,
Through Hole Header

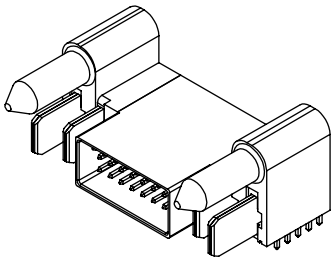
46436
Right Angle,
Through Hole Receptacle



46562
Vertical,
Press-Fit Receptacle

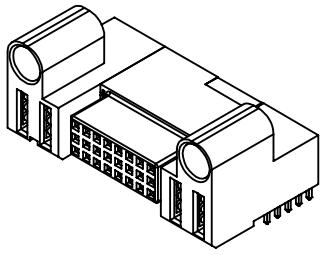


Power-Signal-Power with Top Guides (P-S-P (TG))

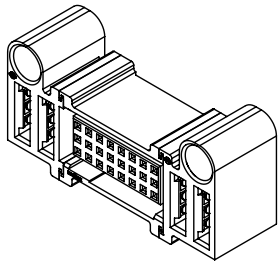


46437
Right Angle,
Through Hole Header

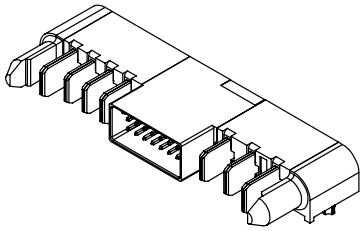
46436
Right Angle,
Through Hole Receptacle



46562
Vertical,
Press-Fit Receptacle

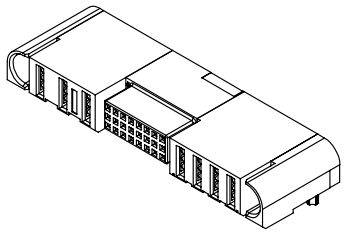


Power-Signal-AC Power (P-S-AC)

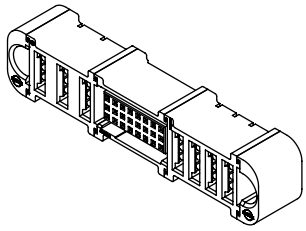


46437
Right Angle,
Through Hole Header

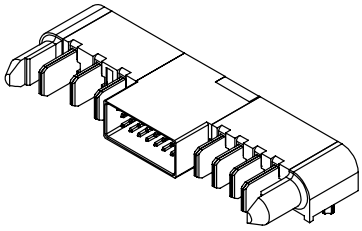
46436
Right Angle,
Through Hole Receptacle



46562
Vertical,
Press-Fit Receptacle

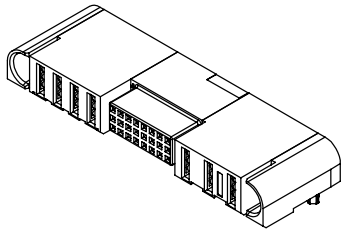


AC Power-Signal-Power (AC-S-P)

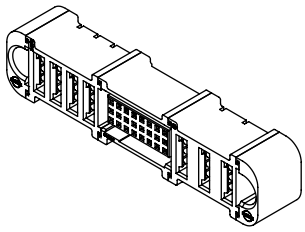


46437
Right Angle,
Through Hole Header

46436
Right Angle,
Through Hole Receptacle

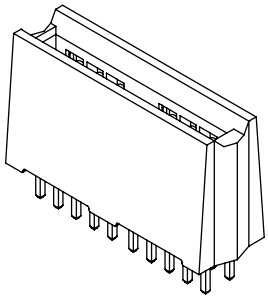


46562
Vertical,
Press-Fit Receptacle



EXTreme PowerEdge™ Card Edge or Bus Bar Connector

45714/45719
High Current Contacts



Features and Benefits
- High current, up to 40.0A per contact
- Rated for current interruption
- Press-fit or solder terminations
- Available in 2, 3 or 4 segments
- End-to-end stackable

Reference Information
Product Specification: PS-45719-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: R72042763
Mates With: 1.58mm (.062") thick card edge or bus bar
Stackable With: 45844, 45845, 45911 or 45912
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 40.0A max.
Contact Resistance: 1 milliohm max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 5000 Megohms min.

Mechanical
Mating Force: 8.8N Typ.
Unmating Force: 4.4N Typ.
Durability: 250 Cycles

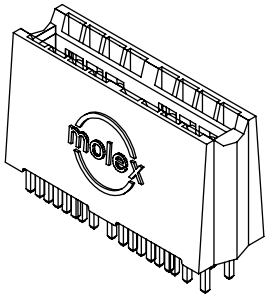
Physical
Housing: Glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Select Gold
Solder or Press-fit Tail Area—Tin
Underplating—Nickel
PCB Thickness: Series 45714—2.36mm (.093") or greater; Series 45719—Separate parts available for 1.57mm (.062") max., 2.36mm (.093") max or 3.18mm (.125") max.

Through Hole Solder PCB Termination				
Order No.	Segments	Total Contacts	Max. PCB Thickness	Lead-free
45719-0001	2	4	3.18mm (.125")	Yes
45719-0002	3	6		
45719-0003	4	8		
45719-0004	2	4	2.36mm (.093")	
45719-0005	3	6		
45719-0006	4	8		
45719-0007	2	4	1.57mm (.062")	
45719-0008	3	6		
45719-0009	4	8		

Press-fit PCB Termination			
Order No.	Segments	Total Contacts	Lead-free
45714-0001	2	4	Yes
45714-0002	3	6	
45714-0003	4	8	

EXTreme PowerEdge™ Card Edge or Bus Bar Connector

45844/45845
Signal Contacts



Features and Benefits
- For slow speed signal applications
- Press-fit or solder terminations
- Available in 2, 3 or 4 segments
- End-to-end stackable

Reference Information
Product Specification: PS-45844-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: R72042763
Mates With: 1.58mm (.062") thick card edge or bus bar
Stackable With: 45845, 45844, 45911 and 45912
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 3.0A max.
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 5000 Megohms min.

Mechanical
Mating Force: 1.4N Typ.
Unmating Force: 0.14N Typ.
Durability: 250 Cycles

Physical
Housing: Glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Select Gold
Solder or Press-fit Tail Area—Tin
Underplating—Nickel
PCB Thickness: Series 45844—Separate parts available for 1.57mm (.062") max. or 3.18mm (.125") max.; Series 45845—2.36mm (.093") or greater

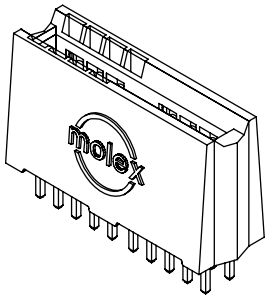
Through Hole Solder PCB Termination				
Order No.	Segments	Total Contacts	Max. PCB Thickness	Lead-free
45844-0001	2	16	3.18mm (.125")	Yes
45844-0002	3	24		
45844-0003	4	32		
45844-0004	2	16	1.57mm (.062")	
45844-0005	3	24		
45844-0006	4	32		

Press-fit PCB Termination			
Order No.	Segments	Total Contacts	Lead-free
45845-0001	2	16	Yes
45845-0002	3	24	
45845-0003	4	32	

EXTreme PowerEdge™ Card Edge or Bus Bar Connector

45911

Mixed High Current and Signal Contacts, Through-Hole Solder PCB Termination



Features and Benefits

- High current, up to 40.0A per contact
- Power and signal contacts in same connector
- Rated for current interruption
- Available in 2, 3 or 4 segments
- End-to-end stackable

Reference Information

Product Specification: PS-45719-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: R72042763
Mates With: 1.58mm (.062") thick card edge or bus bar
Stackable With: 45719 and 45844
Designed In: Millimeters

Electrical

Voltage: 250V
Current: Power Contacts—40.0A max.
Signal Contacts—3.0A max.
Contact Resistance: Power Contacts—1 milliohm max.
Signal Contacts—15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force: Power Contacts—8.8N Typ.
Signal Contacts—1.4N Typ.
Unmating Force: Power Contacts—4.4N Typ.
Signal Contacts—0.14N Typ.
Durability: 250 Cycles

Physical

Housing: Glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Select Gold
Solder Tail Area—Tin
Underplating—Nickel
PCB Thickness: Separate parts available for 1.57mm (.062") max. or 3.18mm (.125") max.

Order No.	Segments	Segment Sequence*	Total Contacts*	Max. PCB Thickness	Lead-free
45911-0001	2	P, S	2 P, 8 S	3.18mm (.125")	Yes
45911-0002		S, P			
45911-0003		P, S		1.57mm (.062")	
45911-0004		S, P			
45911-0007	3	P, P, S	4 P, 8 S	3.18mm (.125")	
45911-0008		P, S, P			
45911-0009		P, S, S	2 P, 16 S		
45911-0010		S, P, S			
45911-0011		S, S, P			
45911-0012		S, P, P	4 P, 8 S	1.57mm (.062")	
45911-0013		P, P, S			
45911-0014		P, S, P			
45911-0015		P, S, S	2 P, 16 S		
45911-0016		S, P, S			
45911-0017		S, S, P			
45911-0018		S, P, P	4 P, 8 S		
45911-0025	4	P, P, P, S	6 P, 8 S	3.18mm (.125")	
45911-0026		P, P, S, P			
45911-0027		P, P, S, S	4 P, 16 S		
45911-0028		P, S, P, S			
45911-0029		P, S, S, P			
45911-0030		P, S, P, P	6 P, 8 S		

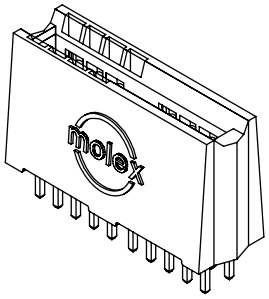
Order No.	Segments	Segment Sequence*	Total Contacts*	Max. PCB Thickness	Lead-free
45911-0031	4	P, S, S, S	2 P, 24 S	3.18mm (.125")	Yes
45911-0032		S, P, P, S	4 P, 16 S		
45911-0033		S, P, S, P			
45911-0034		S, P, S, S	2 P, 24 S		
45911-0035		S, S, P, S			
45911-0036		S, S, S, P			
45911-0037		S, S, P, P	4 P, 16 S		
45911-0038		S, P, P, P	6 P, 8 S	1.57mm (.062")	
45911-0039		P, P, P, S			
45911-0040		P, P, S, P			
45911-0041		P, P, S, S	4 P, 16 S		
45911-0042		P, S, P, S			
45911-0043		P, S, S, P			
45911-0044		P, S, P, P	6 P, 8 S		
45911-0045		P, S, S, S	2 P, 24 S		
45911-0046		S, P, P, S	4 P, 16 S		
45911-0047		S, P, S, P			
45911-0048		S, P, S, S	2 P, 24 S		
45911-0049		S, S, P, S			
45911-0050		S, S, S, P			
45911-0051		S, S, P, P	4 P, 16 S		
45911-0052		S, P, P, P	6 P, 8 S		

*P = Power, S = Signal

EXTreme PowerEdge™ Card Edge or Bus Bar Connector

45912

Mixed High Current and Signal Contacts, Press-fit PCB Termination



Features and Benefits

- High current, up to 40.0A per contact
- Power and signal contacts in same connector
- Rated for current interruption
- Available in 2, 3 or 4 segments
- End-to-end stackable

Reference Information

Product Specification: PS-45719-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: R72042763
Mates With: 1.58mm (.062") thick card edge or bus bar
Stackable With: 45714 and 45845
Designed In: Millimeters

Electrical

Voltage: 250V
Current: Power Contacts—40.0A max.
Signal Contacts—3.0A max.
Contact Resistance: Power Contacts—1 milliohm max.
Signal Contacts—15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force: Power Contacts—8.8N Typ.
Signal Contacts—1.4N Typ.
Unmating Force: Power Contacts—4.4N Typ.
Signal Contacts—0.14N Typ.
Durability: 250 Cycles

Physical

Housing: Glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Select Gold
Press-fit Tail Area—Tin
Underplating—Nickel
PCB Thickness: 2.36mm (.093") or greater

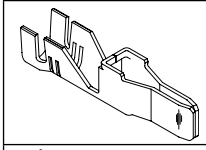
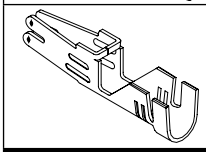
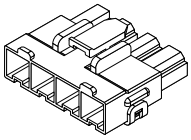
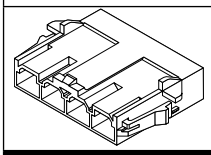
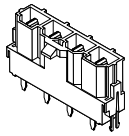
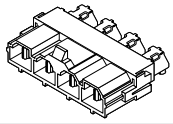
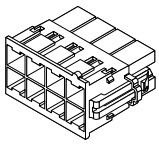
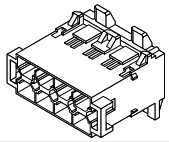
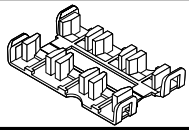
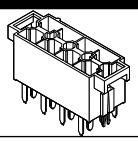
Order No.	Segments	Segment Sequence*	Total Contacts*	Lead-free
45912-0001	2	P, S	2 P, 8 S	Yes
45912-0002		S, P		
45912-0007	3	P, P, S	4 P, 8 S	
45912-0008		P, S, P		
45912-0009		P, S, S	2 P, 16 S	
45912-0010		S, P, S		
45912-0011		S, S, P		
45912-0012		S, P, P	4 P, 8 S	
45912-0025	4	P, P, P, S	6 P, 8 S	
45912-0026		P, P, S, S	4 P, 16 S	
45912-0027				

Order No.	Segments	Segment Sequence*	Total Contacts*	Lead-free
45912-0028	4	P, S, P, S	4 P, 16 S	Yes
45912-0029		P, S, S, P		
45912-0030		P, S, P, P	6 P, 8 S	
45912-0031		P, S, S, S	2 P, 24 S	
45912-0032		S, P, P, S	4 P, 16 S	
45912-0033		S, P, S, P		
45912-0034		S, P, S, S	2 P, 24 S	
45912-0035		S, S, P, S		
45912-0036		S, S, S, P		
45912-0037		S, S, P, P	4 P, 16 S	
45912-0038		S, P, P, P	2 P, 24 S	

*P = Power, S = Signal

10.00mm (.393") Pitch Mini-Fit Sr.™

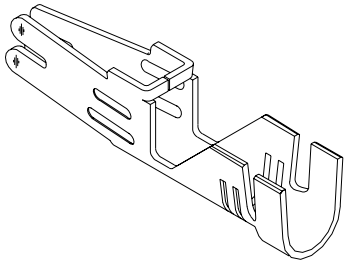
- Wire-to-Wire (free hanging and panel mount)
- Wire-to-Board
- Mandatory Terminal Position Assurance (TPA) Piece
- Voltage: 600V
- Current: 50.0A max.*

	Series	Description	Mates With/ Use With	Material	Circuits/ Wire Gauge	Features and Benefits
Terminals						
	42817	Male Terminal	Mates with 42815 Terminal Used in 42818 and 43938 Housings	Tin or Select Gold-plated Copper Alloy	8 to 16 AWG	• Mating Cycles—Tin: 30/Gold: 100 • Four points of electrical contact provide high reliability • Low insertion force design for greater ease in assembly
	42815	Female Terminal	Mates with 42817 Terminal and PCB Header Terminal Used in 42816 and 43914 Housings			
Single Row Housings						
	42816	Receptacle Housing	Mates with 42818, 42819, 42820	Black Polyester, UL 94V-0	2, 3, 4, 5 and 6 Circuits	• TPA (Terminal Position Assurance) piece attached to housing to prevent terminal backouts • Positive latch guards against accidental disengagement of housings • Polarized housing helps prevent improper mating • Used in wire-to-wire and wire-to-board applications
	42818	Plug Housing	Mates with 42816			• TPA (Terminal Position Assurance) piece attached to housing to prevent terminal backouts • Used in wire-to-wire applications (panel mount or free hanging) only
Single Row PC Board Headers						
	42819	Vertical Header	Mates with 42816	Housings: Black Glass-filled 4/6 Nylon, UL 94V-0 Terminals: Tin or Select Gold-plated Copper Alloy	2, 3, 4, 5 and 6 Circuits	• Metal forklocks for secure retention to PC board • Accommodates 1.57, 2.36, 3.18 and 6.35mm (.062, .093, .125 and .250") thick PC Boards
	42820	Right Angle Header				
Dual Row Housings						
	43914	Receptacle Housing	Mates with 43938, 43915 Use with 43980	Black Polyester, UL 94V-0	6, 8, 10, 12 and 14 Circuits	• Mandatory TPA (Terminal Position Assurance) piece (43980 series) sold separately • Positive latch guards against accidental disengagement of housings • Polarized housing helps prevent improper mating • Used in wire-to-wire or wire-to-board applications
	43938	Plug Housing	Mates with 43914 Use with 43980			• Mandatory TPA (Terminal Position Assurance) piece (43980 series) sold separately • Used in wire-to-wire applications (panel mount or free hanging)
Dual Row TPA (Terminal Position Assurance Piece)						
	43980	TPA	Must Use With 43914, 43938	White Polyester, UL 94V-0	6, 8, 10, 12 and 14 Circuits	• Virtually eliminates terminal back out • White color for easy activation identification
Dual Row Vertical PC Board Header						
	43915	Vertical Header	Mates with 43914	Housing: Black Glass-filled 4/6 Nylon, UL 94V-0 Terminals: Tin or Select Gold-plated Copper Alloy	6, 8, 10, 12 and 14 Circuits	• Metal forklocks for secure retention to PC board • Accommodates 1.57, 2.36, 3.18 and 6.35mm (.062, .093, .125 and .250")

*Maximum current is dependent on wire gauge and circuit size. See Mini-Fit, Sr. product specification PS-42815-001.

10.00mm (.393") Pitch Mini-Fit Sr.™ Terminal

42815
Female



Features and Benefits
- High current
- Low engagement force
- Wire-to-wire, wire-to-board
- Four points of electrical contact

Reference Information
Product Specification: PS-42815-0001
Packaging: Reel
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R9751144
Use With: 42816 and 43914 receptacle housings
Designed In: Millimeters

Electrical
Voltage: 600V
Current: 50.0A max.*
Contact Resistance: 1.5 milliohms max.
Dielectric Withstanding Voltage: 2200V
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Insertion Force: 29.4N max.
Contact Retention to Housing: 98.1N min.
Mating Force: 29.4N max.
Unmating Force: 4.9N min.
Normal Force: 1.96N min.
Durability: Tin—30 cycles; Gold—100 cycles

Physical
Contact: Copper Alloy
Plating: Tin or Select Gold
Wire gauge: 8, 10, 12, 14, 16 AWG

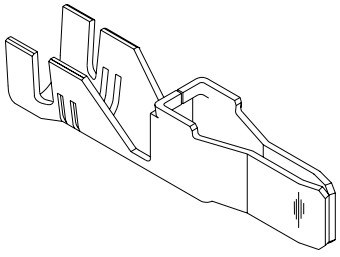
* Depending on circuit size, wire gauge and PCB. Please refer to product specification.

Order No.	Plating*	Wire Size (AWG)	Lead-free
42815-0041	Tin	14-16	Yes
42815-0042	Select Gold		
42815-0011	Tin	10-12	
42815-0012	Select Gold		
42815-0031	Tin	8	
42815-0032	Select Gold		

* Select Gold plated terminals recommended. See product specification for additional information.

10.00mm (.393") Pitch Mini-Fit Sr.™ Terminal

42817
Male



Features and Benefits
- High current
- Four points of electrical contact
- Low engagement force
- Wire-to-wire
- Grounding contacts available

Reference Information
Product Specification: PS-42815-0001
Packaging: Reel
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R9751144
Use With: 42818 and 43938 plug housings
Designed In: Millimeters

Electrical
Voltage: 600V
Current: 50.0A max.*
Contact Resistance: 1.5 milliohms max.
Dielectric Withstanding Voltage: 2200V
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Insertion Force: 29.4N max.
Contact Retention to Housing: 98.1N min.
Mating Force: 29.4N max.
Unmating Force: 4.9N min.
Normal Force: 1.96N min.
Durability: Tin—30 cycles; Select Gold—100 cycles

Physical
Contact: Copper Alloy
Plating: Tin or Select Gold
Wire gauge: 8, 10, 12, 14 and 16 AWG

* Depending on circuit size and wire gauge. Please refer to product specification.

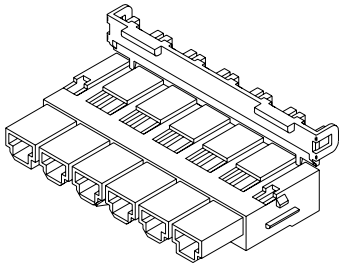
Standard Contacts			
Order No.	Plating*	Wire Gauge	Lead-free
42817-0041	Tin	14-16	Yes
42817-0042	Select Gold		
42817-0011	Tin	10-12	
42817-0012	Select Gold		
42817-0031	Tin	8	
42817-0032	Select Gold		

Grounding Contacts			
Order No.	Plating*	Wire Gauge	Lead-free
42817-0141	Tin	14-16	Yes
42817-0142	Select Gold		
42817-0111	Tin	10-12	
42817-0112	Select Gold		
42817-0131	Tin	8	
42817-0132	Select Gold		

* Select Gold plated terminals recommended. See product specification for additional information.

10.00mm (.393") Pitch Mini-Fit Sr.™ Receptacle Housing

42816
Single Row



Circuits	Order No.
2	42816-0212
3	42816-0312
4	42816-0412
5	42816-0512
6	42816-0612

Features and Benefits
- High current
- Fully polarized
- Positive locks
- Low engagement force
- Wire-to-wire, wire-to-board
- Includes mandatory Terminal Position Assurance (TPA) clip

Reference Information
Product Specification: PS-42815-0001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R9751144
Mates With: 42818 plug housing, 42819 and 42820 headers
Use With: 42815 female terminal
Designed In: Millimeters

Electrical
Voltage: 600V
Current: 50.0A max.*
Insulation Resistance: 1000 Megohms min.

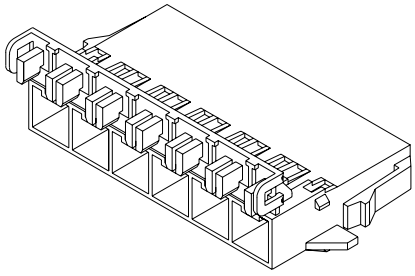
Mechanical
Contact Insertion Force: 29.4N max.
Contact Retention to Housing: 98.1N min.

Physical
Housing: Polyester, UL 94V-0

* Depending on circuit size, wire gauge and PCB. Please refer to product specification.

10.00mm (.393") Pitch Mini-Fit Sr.™ Plug Housing

42818
Panel Mount
Single Row



Circuits	Order No.
2	42818-0212
3	42818-0312
4	42818-0412
5	42818-0512
6	42818-0612

Features and Benefits
- High current
- Fully polarized
- Positive locks
- Low engagement force
- Wire-to-wire
- Panel Mountable
- Includes mandatory Terminal Position Assurance (TPA) clip

Reference Information
Product Specification: PS-42815-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R9751144
Mates With: 42816 receptacle housing
Use With: 42817 male terminal
Designed In: Millimeters

Electrical
Voltage: 600V
Current: 50.0A max.*
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Insertion Force: 29.4N max.
Contact Retention to Housing: 98.1N min.

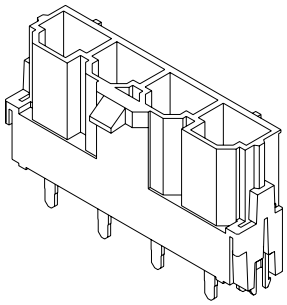
Physical
Housing: Polyester, UL 94V-0

* Depending on circuit size and wire gauge. Please refer to product specification.

10.00mm (.393") Pitch Mini-Fit Sr.™ Header

42819

Vertical, Single Row Metal Clip Mount



Features and Benefits

- High current
- Fully polarized
- Positive locks
- Low engagement force
- Wire-to-board
- Metal board retention clip

Reference Information

Product Specification: PS-42815-0001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R9751144
Mates With: 42816 receptacle housing
Designed In: Millimeters

Electrical

Voltage: 600V
Current: 48.0A max.*
Contact Resistance: 1.5 milliohms max.
Dielectric Withstanding Voltage: 2200V
Insulation Resistance: 1000 Megohms min.

Mechanical

Insertion Force to PCB: 19.6N max.
Normal Force: 1.96N min.
Durability: Tin—30 cycles; Gold—100 cycles

Physical

Housing: Glass-filled, 4/6 nylon, UL 94V-0
Contact: Copper Alloy
Plating: Tin or Select Gold
PCB Thickness: 1.57, 2.36, 3.17, or 6.35mm (.062, .093, .125, or .250")

* Depending on circuit size, wire gauge and PCB. Please refer to product specification.

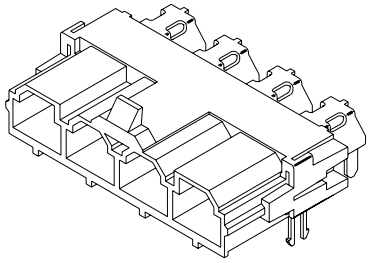
Circuits	Order No.		PCB Thickness	Retention Clip Length	PC Tail Length	Lead-free
	Tin*	Select Gold				
2	42819-2212	42819-2213	1.57 (.062)	1.80 (.070)	3.50 (.137)	Yes
	42819-2222	42819-2223	2.36 (.093)	2.60 (.102)	5.10 (.200)	
	42819-2232	42819-2233	3.18 (.125)	3.40 (.133)		
	42819-2242	42819-2243	6.35 (.250)	6.58 (.259)	8.30 (.327)	
3	42819-3212	42819-3213	1.57 (.062)	1.80 (.070)	3.50 (.137)	
	42819-3222	42819-3223	2.36 (.093)	2.60 (.102)	5.10 (.200)	
	42819-3232	42819-3233	3.18 (.125)	3.40 (.133)		
	42819-3242	42819-3243	6.35 (.250)	6.58 (.259)	8.30 (.327)	
4	42819-4212	42819-4213	1.57 (.062)	1.80 (.070)	3.50 (.137)	
	42819-4222	42819-4223	2.36 (.093)	2.60 (.102)	5.10 (.200)	
	42819-4232	42819-4233	3.18 (.125)	3.40 (.133)		
	42819-4242	42819-4243	6.35 (.250)	6.58 (.259)	8.30 (.327)	
5	42819-5212	42819-5213	1.57 (.062)	1.80 (.070)	3.50 (.137)	
	42819-5222	42819-5223	2.36 (.093)	2.60 (.102)	5.10 (.200)	
	42819-5232	42819-5233	3.18 (.125)	3.40 (.133)		
	42819-5242	42819-5243	6.35 (.250)	6.58 (.259)	8.30 (.327)	
6	42819-6212	42819-6213	1.57 (.062)	1.80 (.070)	3.50 (.137)	
	42819-6222	42819-6223	2.36 (.093)	2.60 (.102)	5.10 (.200)	
	42819-6232	42819-6233	3.18 (.125)	3.40 (.133)		
	42819-6242	42819-6243	6.35 (.250)	6.58 (.259)	8.30 (.327)	

* Select Gold headers recommended. See product specification for additional information.

10.00mm (.393") Pitch Mini-Fit Sr.™ Header

42820

Right Angle, Single Row Metal Clip Mount



Features and Benefits

- High current
- Fully polarized
- Positive locks
- Low engagement force
- Wire-to-board
- Metal board retention clip

Reference Information

Product Specification: PS-42815-0001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R9751144
Mates With: 42816 receptacle housing
Designed In: Millimeters

Electrical

Voltage: 600V
Current: 48.0A max.*
Contact Resistance: 1.5 milliohms max.
Dielectric Withstanding Voltage: 2200V
Insulation Resistance: 1000 Megohms min.

Mechanical

Insertion Force to PCB: 19.6N max.
Normal Force: 1.96N min.
Durability: 30 cycles

Physical

Housing: Glass-filled, 4/6 nylon, UL 94V-0
Contact: Copper Alloy
Plating: Tin or Select Gold
PCB Thickness: 1.57, 2.36, 3.18, or 6.35mm (.062, .093, .125, or .250")

* Depending on circuit size, wire gauge and PCB. Please refer to product specification.

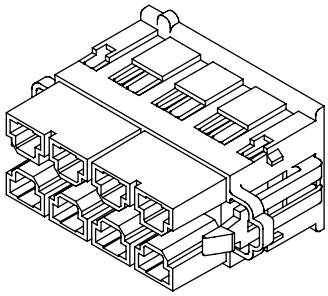
Circuits	Order No.		PCB Thickness	Retention Clip Length	PC Tail Length	Lead-free
	Tin*	Select Gold				
2	42820-2212	42820-2213	1.57 (.062)	1.80 (.070)	3.50 (.137)	Yes
	42820-2222	42820-2223	2.36 (.093)	2.60 (.102)	5.10 (.200)	
	42820-2232	42820-2233	3.18 (.125)	3.40 (.133)		
	42820-2242	42820-2243	6.35 (.250)	6.58 (.259)	8.30 (.327)	
3	42820-3212	42820-3213	1.57 (.062)	1.80 (.070)	3.50 (.137)	
	42820-3222	42820-3223	2.36 (.093)	2.60 (.102)	5.10 (.200)	
	42820-3232	42820-3233	3.18 (.125)	3.40 (.133)		
	42820-3242	42820-3243	6.35 (.250)	6.58 (.259)	8.30 (.327)	
4	42820-4212	42820-4213	1.57 (.062)	1.80 (.070)	3.50 (.137)	
	42820-4222	42820-4223	2.36 (.093)	2.60 (.102)	5.10 (.200)	
	42820-4232	42820-4233	3.18 (.125)	3.40 (.133)		
	42820-4242	42820-4243	6.35 (.250)	6.58 (.259)	8.30 (.327)	
5	42820-5212	42820-5213	1.57 (.062)	1.80 (.070)	3.50 (.137)	
	42820-5222	42820-5223	2.36 (.093)	2.60 (.102)	5.10 (.200)	
	42820-5232	42820-5233	3.18 (.125)	3.40 (.133)		
	42820-5242	42820-5243	6.35 (.250)	6.58 (.259)	8.30 (.327)	
6	42820-6212	42820-6213	1.57 (.062)	1.80 (.070)	3.50 (.137)	
	42820-6222	42820-6223	2.36 (.093)	2.60 (.102)	5.10 (.200)	
	42820-6232	42820-6233	3.18 (.125)	3.40 (.133)		
	42820-6242	42820-6243	6.35 (.250)	6.58 (.259)	8.30 (.327)	

* Select Gold headers recommended. See product specification for additional information.

10.00mm (.393") Pitch Mini-Fit Sr.™ Receptacle and TPA Clip

43914/43980

Dual Row



Features and Benefits

- High current
- Fully polarized
- Positive locks
- Low engagement force
- Wire-to-wire, wire-to-board (vertical only)
- Mandatory 43980 Series Terminal Position Assurance (TPA) clip, order separately

Reference Information

Product Specification: PS-42815-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
TUV License No: R9751144
Mates With: 43938 plug housing and 43915 header
Use With: 42815 female terminal and 43980 Terminal Position Assurance (TPA) clip
Designed In: Millimeters

Electrical

Voltage: 600V
Current: 43.0A max*
Insulation Resistance: 1000 Megohms min.
Dielectric withstanding voltage: 2200V

Mechanical

Contact Insertion Force: 29.4N max.
Contact Retention to Housing: 98.1N min.

Physical

Housing: Polyester, UL 94V-0

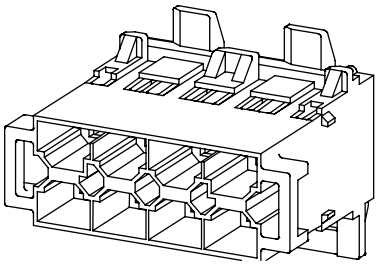
*Depending on circuit size, wire gauge and PCB. Please refer to product specification.

Dual Row Receptacles		TPA Clip	
Circuits	Order No.	Circuits	Order No.
6	43914-1101	6	43980-1001
8	43914-1102	8	43980-1002
10	43914-1103	10	43980-1003
12	43914-1104	12	43980-1004
14	43914-1105	14	43980-1005

10.00mm (.393") Pitch Mini-Fit Sr.™ Plug and TPA Clip

43938/43980

Dual Row
Panel Mount



Features and Benefits

- High current
- Fully polarized
- Positive locks
- Low engagement force
- Wire-to-wire
- Mandatory 43980 Series Terminal Position Assurance (TPA) clip, order separately

Reference Information

Product Specification: PS-42815-001
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
TUV License No: R9751144
Mates With: 43914 Receptacle housing
Use With: 42817 male terminal and 43980 Terminal Position Assurance (TPA) clip
Designed In: Millimeters

Electrical

Voltage: 600V
Current: 43.0A max*
Insulation Resistance: 1000 Megohms min.
Dielectric withstanding voltage: 2200V

Mechanical

Contact Insertion Force: 29.4N max.
Contact Retention to Housing: 98.1N min.

Physical

Housing: Polyester, UL 94V-0

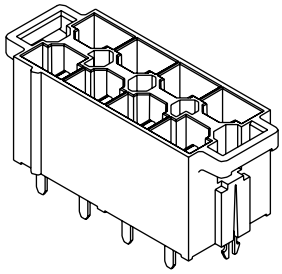
*Depending on circuit size and wire gauge. Please refer to product specification.

Dual Row Plug		TPA Clip	
Circuits	Order No.	Circuits	Order No.
6	43938-2101	6	43980-1001
8	43938-2102	8	43980-1002
10	43938-2103	10	43980-1003
12	43938-2104	12	43980-1004
14	43938-2105	14	43980-1005

10.00mm (.393") Pitch Mini-Fit Sr.™ Header

43915

Vertical, Dual Row Metal Clip Mount



Features and Benefits

- High current
- Fully polarized
- Positive locks
- Low engagement force
- Metal board retention clips
- Wire-to-board

Reference Information

Product Specification: PS-42815-0001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
TUV License No: R9751144
Mates With: 43914 receptacle housing
Designed In: Millimeters

Electrical

Voltage: 600V
Current: 37.0A max.*
Contact Resistance: 1.5 milliohms max.
Dielectric Withstanding Voltage: 2200V
Insulation Resistance: 1000 Megohms min.

Mechanical

Insertion Force to PCB: 19.6kg max.
Normal Force: 1.96N min.
Durability: Tin—30 cycles; Gold—100 cycles

Physical

Housing: Glass-filled, 4/6 nylon, UL 94V-0
Contact: Copper Alloy
Plating: Tin or Select Gold
PCB Thickness: 1.57, 2.36, 3.18 or 6.35mm (.062, .093, .125 or .250")

* Depending on circuit size, wire gauge and PCB. Please refer to product specification.

Circuits	Order No.		PCB Thickness	Lead-free
	Tin*	Select Gold		
6	43915-1101	43915-1201	1.57 (.062)	Yes
	43915-1106	43915-1206	2.36 (.093)	
	43915-1111	43915-1211	3.18 (.125)	
	43915-1116	43915-1216	6.35 (.250)	
8	43915-1102	43915-1202	1.57 (.062)	
	43915-1107	43915-1207	2.36 (.093)	
	43915-1112	43915-1212	3.18 (.125)	
	43915-1117	43915-1217	6.35 (.250)	
10	43915-1103	43915-1203	1.57 (.062)	
	43915-1108	43915-1208	2.36 (.093)	
	43915-1113	43915-1213	3.18 (.125)	
	43915-1118	43915-1218	6.35 (.250)	

Circuits	Order No.		PCB Thickness	Lead-free
	Tin*	Select Gold		
12	43915-1104	43915-1204	1.57 (.062)	Yes
	43915-1109	43915-1209	2.36 (.093)	
	43915-1114	43915-1214	3.18 (.125)	
	43915-1119	43915-1219	6.35 (.250)	
14	43915-1105	43915-1205	1.57 (.062)	
	43915-1110	43915-1210	2.36 (.093)	
	43915-1115	43915-1215	3.18 (.125)	
	43915-1120	43915-1220	6.35 (.250)	

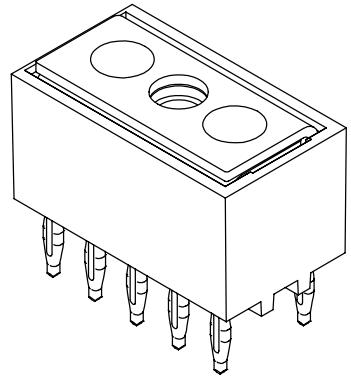
* Select Gold headers recommended. See product specification for additional information.

www.molex.com/product/power/minisr.html

10.30mm (.405") Stack EXTreme ZPower™ Connector Parallel Board Spacing

76001

Right Angle, Signal Only



Features and Benefits

- Patented internal terminal design allows a rigid, secure interface while helping to isolate press-fit pins from the load of shock and vibration
- Screw contact interface can accept standard wire-crimp, ring-lug terminals for wire-to-board applications (Tin plating for use with ring lug terminal connection)
- Captured internal nut for ease of assembly
- High normal force, high-reliability interface
- One piece ridged Board-to-Board high current interconnect
- Hertzian (high pressure) contact areas create a reliable (gas-tight) mating surface

Reference Information

Packaging: Tray
UL File No.: E29179
Designed In: Millimeters

Electrical

Voltage: 600V max.
Current: 10 Circuit—50.0A max.
6 Circuit—30.0A max.
Contact Resistance (per blade):
Initial—0.15 milliohms
End of Life—0.10 milliohms max. change
Dielectric Withstanding Voltage: 1500VDC
Insulation Resistance: 5000 Megohms min.

Mechanical

MInsertion Force to PCB: 9.07N (20lbf) per tail
Recommended Torque: 0.75 N-m (6.6 Inch-lbs)
Durability: 5 cycles

Physical

Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating:
Contact Area— 30µ" Gold min.
or 100µ" select matte Tin min.
Solder Tail Area—100µ" select matte Tin min.
Underplating—50µ" Nickel min.

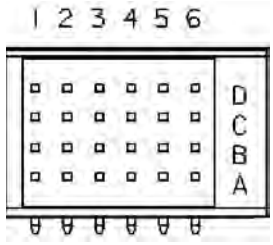
Order No.	Tails	Current	Plating	Mating PCB Thickness	Press-Fit PCB Thickness	Lead Free
76001-0006	6	30.0A	Gold	0.063" 0.093" 0.125"	0.093"	Yes
76001-0106	6		Tin			
76001-0010	10	50.0A	Gold			
76001-0110	10		Tin			

EXTreme PowerPlus™ (SSI) Expandable Power and Signal Connectors

Features and Benefits

- Recessed pins-sequential mating (last-mate/first-break) allows hot swapping of power supply units
- Guide pockets (headers) or guide posts (receptacles) facilitate easy blind-mating
- Shrouded headers prevent contact damage
- Stamped and selectively-plated power contacts provide greater electrical reliability
- Rigid tails for easy PCB insertion
- Metal forklocks or screw mounts for strong board retention reduce board warpage during soldering
- High-temperature thermoplastic housing material ensures thermal reliability

SELECTION GUIDE

Gender	- Plug (Male) - Receptacle (Female)
Connector Orientation	- Vertical - Right Angle
Termination Method	- Through Hole - Press-Fit
Type	- Power-Signal-Power (P-S-P) - Power(Alpha)-Signal (Pa-S) - All Power (AP) - Signal-Power(Beta) (S-Pb) - AC Power/DC Power (AC/DC)
Power and Signal	- Number of power at Alpha (Example: 2 power pins at Alpha = 2 Pa) - Number of Signal pins (Example: 24 signal pins = 24 S) - Number of power at Beta (Example: 3 power pins at Beta = 3 Pb)
Recess	- Recess Power only on Receptacle Power Alpha or Beta (Example: Recess Pa #1, Pb #3 etc.) - Recess Signal only on Plug (Example: Recess Signal at A3, B4 etc.) 
Retention to PCB	- Board Lock - Screw Mount
Guide Post	- With Guide Post - Without Guide Post
Pitch	- DC Power: 6.35mm (.25") Pitch - AC Power: 7.62mm (.30") Pitch

EXTreme PowerPlus™ (SSI) Expandable Power and Signal Connectors

Electrical

Voltage: Power—50V
Signal—50V
Current: Power—30A
Signal—2.5A
Contact Resistance: Power—0.5 milliohms max.
Signal—20 milliohms max.
Dielectric Withstanding Voltage: Power—2,500V AC
Signal—1,000V AC
Insulation Resistance: Power—20,000 Megohms min.
Signal—5,000 Megohms min.

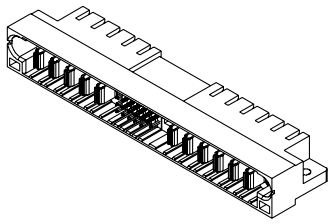
Mechanical

Mating Force: Power—6.95N (1.56 lb) per pin
Signal—1.00N (.22 lb) per pin
Unmating Force: Power—2.23N (.50 lb) per pin
Signal—0.10N (.022 lb) per pin
Durability: 100 cycles

Physical

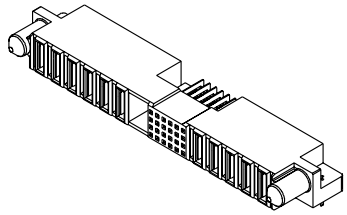
Unmated Height: 12.09mm (.476")
Housing: Black glass-filled high-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact—0.76µm (30µ") Gold
Tail—2.54µm (100µ") Tin
Underplating: Nickel

SSI - MPS

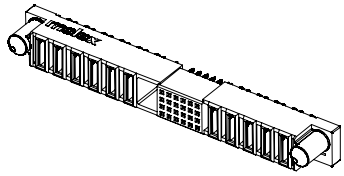


87615
Right Angle,
Through Hole Header

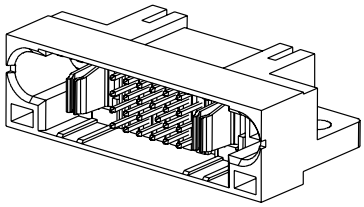
87616
Right Angle,
Through Hole Receptacle



87665
Vertical,
Press-Fit Receptacle

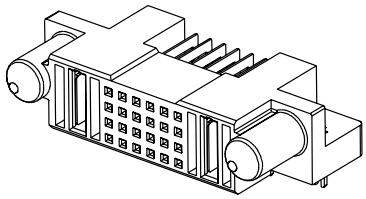


SSI - DPS

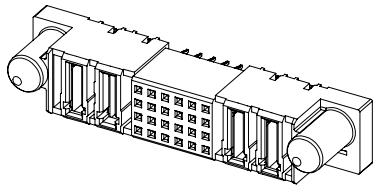


87606
Right Angle,
Through Hole Header

87607
Right Angle,
Through Hole Receptacle

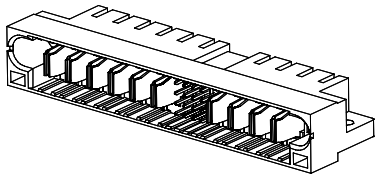


87695
Vertical,
Press-Fit Receptacle



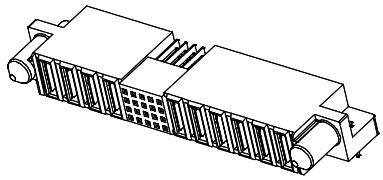
EXTreme PowerPlus™ (SSI) Expandable Power and Signal Connectors

Power-Signal-Power (P-S-P)

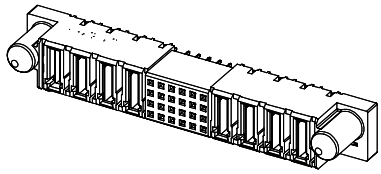


87631
Right Angle,
Through Hole Header

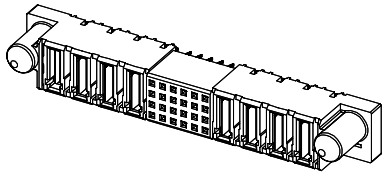
87632
Right Angle,
Through Hole Receptacle



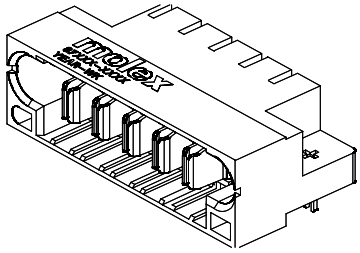
87622
Vertical,
Through Hole Receptacle



87633
Vertical,
Press-Fit Receptacle

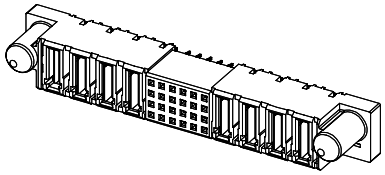


All Power

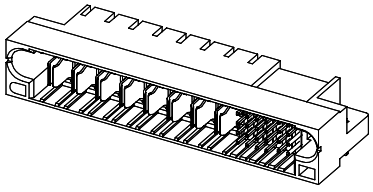


87658
Right Angle,
Through Hole Header

87633
Vertical,
Press-Fit Receptacle

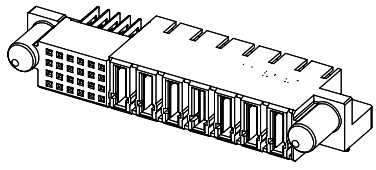


Power(Alpha)-Signal (Pa-S)

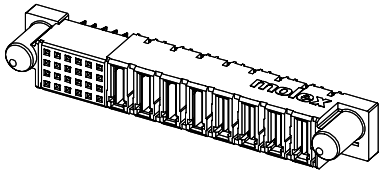


87696
Right Angle,
Through Hole Header

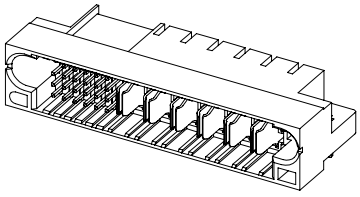
87700
Right Angle,
Through Hole Receptacle



87697
Vertical,
Press-Fit Receptacle

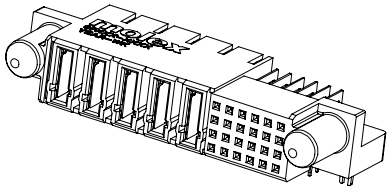


Signal-Power(Beta) (S-Pb)

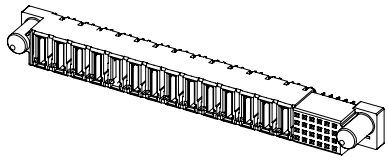


87667
Right Angle,
Through Hole Header

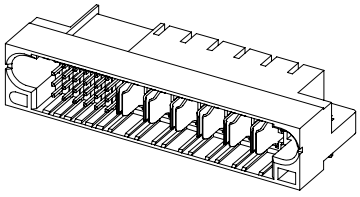
87668
Right Angle,
Through Hole Receptacle



87710
Vertical,
Press-Fit Receptacle

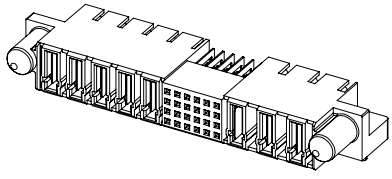


AC/DC

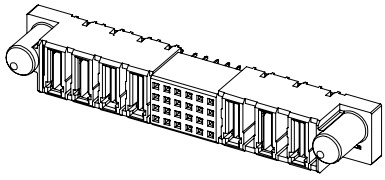


87663
Right Angle,
Through Hole Header

87664
Right Angle,
Through Hole Receptacle



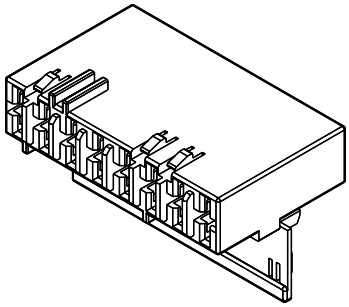
87734
Vertical,
Through Hole Receptacle



5.00mm (.197") Pitch Wire-to-Wire/Wire-to-Tab Receptacle Housing

94535

For Female Terminals With Secondary Lock



Circuits	Order No.
2	94535-7002
4	94535-7004
8	94535-7008

Features and Benefits
- Rast 5 crimping technology
- Used for domestic appliances
- Secondary locking
- Designed for high currents

Reference Information
Packaging: Box
Use With: 94518 and 94539 Terminals
Designed In: Millimeters

Mechanical
Contact Insertion Force: 20N (4.50 lb) max.
Contact Retention to Housing: 100N (22.48 lb) min.
Durability: 100 cycles

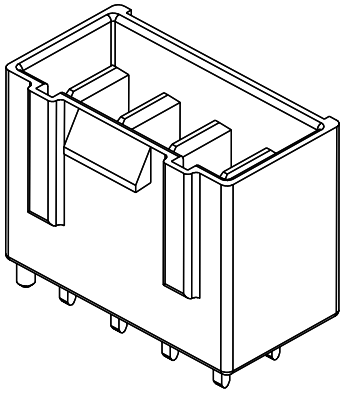
Physical
Housing: White PA 66, UL 94V-2
Mating Force: 1.0kgf max. (2.2 lb) per contact
Normal Force: 375gf max. (0.32 lb)

www.molex.com/customer.html?seriesNumber=94535

5.00mm (.197") Pitch PCB Header

94213

4 Circuit Vertical



Order No.	Color	Lead-free
94213-2004	White	Yes
94213-2014	Black	

Features and Benefits
- Rast 5 technology
- Used for domestic appliances

Reference Information
Packaging: Box
Mates With: 84540 housing
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 25.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 5000 Megohms min.

Mechanical
Contact Insertion Force: 6N (1.35 lb) max.
Mating Force: 30N (6.74 lb) max.
Unmating Force: 8N (1.80 lb) min.
Durability: 100 cycles

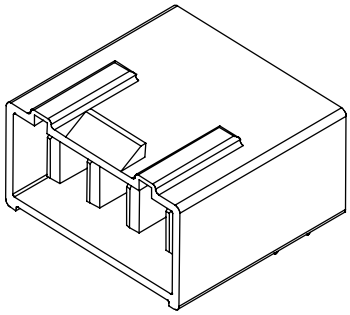
Physical
Housing: PA 66, UL 94V-2
Contact: Brass
Plating: Preplated Tin
PCB Thickness: 1.50mm (.059")

www.molex.com/customer.html?seriesNumber=94213

5.00mm (.197") Pitch PCB Header

94213

4 Circuit Right Angle



Order No.	Color	Lead-free
94213-1004	White	Yes
94213-1014	Black	

Features and Benefits

- Rast 5 technology
- Used for domestic appliances

Reference Information

Packaging: Box
Mates With: 84540 housing
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 25.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 5000 Megohms min.

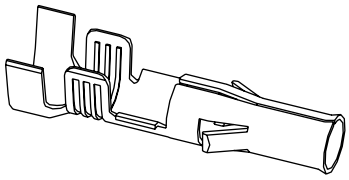
Mechanical

Contact Insertion Force: 6N (1.35 lb) max.
Mating Force: 30N (6.74 lb) max.
Unmating Force: 8N (1.80 lb) min.
Durability: 100 cycles

Physical

Housing: PA 66, HB
Contact: Brass
Plating: Preplated Tin
PCB Thickness: 1.50mm (.059")

3.18mm (.125") Pin Diameter HCS-125 Pin and Socket Female Crimp Terminal



Features and Benefits
- Round contact design for easy insertion into housing
- High current in pin and socket format

Reference Information
UL File No.: E29179
CSA File No.: LR19980
Use With: 42179 receptacle housing
Designed In: Inches

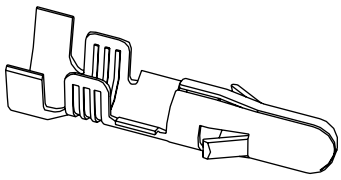
Electrical
Current: 20A max.
Contact Resistance: 10 milliohms max.

Mechanical
Contact Retention to Housing: 88.96N min.
Mating Force: 24.78N max.
Unmating Force: 8.90N min.
Mating Cycles: 25 mating/unmating cycles max.

Physical
Contact: Brass or Phosphor Bronze
Plating: Tin

Type	Wire Size AWG	Maximum Insulation Diameter	Series	Order No.		Lead-free
				Chain	Loose	
Brass	10-14	4.57 (.180)	1901	18-12-1601	18-12-1602	Yes
	16-18	3.04 (.120)	2047	18-12-1221	18-12-1222	
		4.57 (.180)	42555	18-12-1605		
Phosphor Bronze	10-14	4.57 (.180)	42547	18-12-1603	18-12-1604	
	16-18	3.04 (.120)	8947	18-12-1404		

3.18mm (.125") Pin Diameter HCS-125 Pin and Socket Male Crimp Terminal



Features and Benefits
- Round contact design for easy insertion into housing
- High current in pin and socket format

Reference Information
UL File No.: E29179
CSA File No.: LR19980
Use With: 42179 plug housing
Designed In: Inches

Electrical
Current: 20A max.
Contact Resistance: 10 milliohms max.

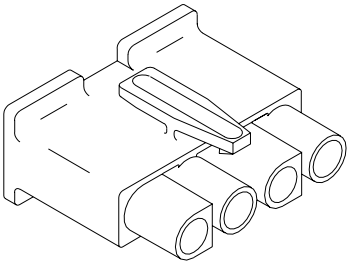
Mechanical
Contact Retention to Housing: 88.96N min.
Mating Force: 24.78N max.
Unmating Force: 8.90N min.
Mating Cycles: 25 mating/unmating cycles max.

Physical
Contact: Brass or Phosphor Bronze
Plating: Tin

Type	Wire Size AWG	Maximum Insulation Diameter	Series	Order No.		Lead-free
				Chain	Loose	
Brass	10-14	4.57 (.180)	1900	18-12-2601	18-12-2602	Yes
	16-18	3.04 (.120)	2046	18-12-2221	18-12-2222	
		4.57 (.180)	42554	18-12-2405		
Phosphor Bronze	10-14	4.57 (.180)	42546	18-12-1607		

8.38mm (.330") Pitch HCS-125 Crimp Terminal Housing Receptacle

42179
Single Row



Circuits	Order No.
1	03-12-1016
2	03-12-1026
3	03-12-1036
4	03-12-1046

Features and Benefits
- Meets the need for a connector system rated at greater than industry standards
- Positive locks prevent accidental unmating
- Individual terminal silos protect terminals
- Pull tabs for easy disengagement
- 1, 2, 3 and 4 circuit housings

Reference Information
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R9151436
Mates with: 42179 Plug housing
Use With: .125" terminals

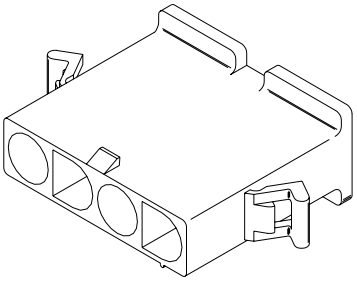
Electrical
Voltage: 600V
Current: 20.0A

Mechanical
Contact Retention to Housing: 88.96N min.

Physical
Housing: Nylon, UL 94V-2
Wire Range: See product specification and application tooling specification

8.38mm (.330") Pitch HCS-125 Crimp Terminal Housing Plug

42179
Single Row



Circuits	Order No.	
	Panel Mount	Free Hanging
1	03-12-2015	03-12-2016
2	03-12-2025	03-12-2026
3	03-12-2035	03-12-2036
4	03-12-2045	03-12-2046

Features and Benefits
- Meets the need for a connector system rated at greater than industry standards
- Positive locks prevent accidental unmating
- Fully isolated terminals protect terminals
- Pull tabs for easy disengagement
- 1, 2, 3 and 4 circuit housings

Reference Information
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R9151436
Mates With: 42179 Receptacle housing
Use With: .125" terminals

Electrical
Voltage: 600V
Current: 20.0A max.

Mechanical
Contact Retention to Housing: 88.96N min.

Physical
Housing: Nylon, UL 94V-2
Wire Accommodation: See product specification and application specification

7.50mm (.295") Pitch Sabre™ Introduction

Today's manufacturing environment demands constant improvements in quality standards, increased productivity and lower production costs. With the Sabre power connector system these challenges can be met.

The Sabre system is a robust power connector supplying up to 18 amperes for high current applications. Designed and patented by Molex engineers, Sabre standardizes manufacturing footprints by offering both wire-to-wire and wire-to-board configurations. Whether your design requires 18 AWG or 14 AWG wire, the Sabre power connector system provides the flexibility of accepting a wide range of wire gauges and insulation thicknesses.

Sabre connectors offer other benefits to successfully fit the needs of your power connector applications. A primary locking feature designed on the Sabre terminal locks the terminal in place in the housing. In addition, the terminal is designed with a Terminal Position Assurance (TPA) feature that virtually eliminates terminal backout. Activation of the TPA feature is optional. The positive locking latch on the receptacle housing prevents accidental disconnection. This anti-tangle designed latch also ensures ease of handling during production. Made of nylon V-0 or V-2 material, the housings are impact resistant and withstand rough treatment during assembly.

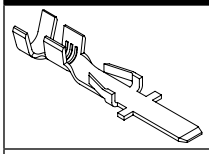
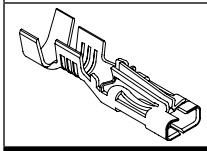
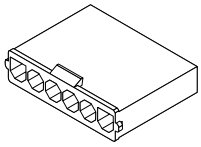
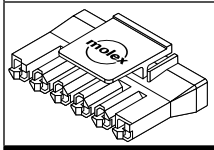
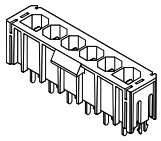
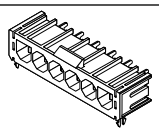
THE SABRE ADVANTAGE

Features	*Benefits*
Ideal for 14 to 18 AWG wire range	Accommodates wide range of wire insulation thicknesses and double wire crimps
Fully isolated terminals	Provide terminal protection and polarization
Positive thumb latch	Prevents accidental disengagement
Audible click when latched	Reassures operators latch is engaged
Four points of electrical contact	Provide more reliable electrical connection
Terminal base material of Brass with Tin plating	Cost effective base material
Anti-tangle latch on receptacle housing	Prevents breakage and makes production handling easy
Plug and receptacle housing molded in 94V-0 or 94V-2 material	Withstands operating temperature ranges from -40 to +75˚C
Integral Terminal Position Assurance (TPA)	Virtually eliminates terminal backout
No secondary plastic locking parts	Eliminate costs of handling and inventory of secondary parts
Dual truss-style locking device on female terminal	Provides more robust primary locking mechanism of terminal in housing
Solder tail lengths of .150 and .210" dimensions	Fit a wide range of PC board thicknesses
Optional board lock feature offered in .062, .093 and .125" lengths	For most popular PC board thicknesses
Contact factory to inquire about availability of terminal, housing or header components that meet the UL 1950 standard for finger proofing in environments where contact safety is a consideration.	

7.50mm (.295") Pitch Sabre™

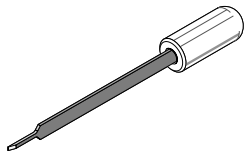
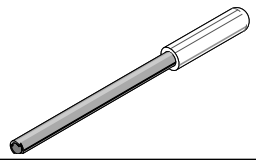
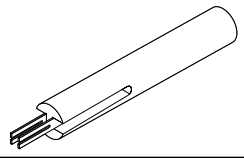
- Wire-to-Wire (free hanging only)
- Wire-to-Board
- Patented Terminal Position Assurance (TPA) feature
- Voltage: 600V
- Current: 18.0A* per circuit
- UL 1950 Finger Proof Safe available

*Depending on circuit size, wire gauge and PCB design

	Series	Description	Mates With/ Use With	Material	Circuits/ Wire Gauge	Features and Benefits
Terminals						
	43178	Male Terminal	Mates with 43375 Terminals Used in 43680 Housings	Tin-plated Brass	14 to 18 AWG or double 18 AWG crimps	• Four points of electrical contact between terminal mating interface provides a more reliable electrical connection • Patented integral Terminal Position Assurance (TPA) on mated male and female terminals. Activation is optional. Virtually eliminates terminal backouts from housing • Male terminal part numbers available for use with 43680 plug housings that meet UL 1950 finger proofing in environments where contact safety is a consideration
	43375	Female Terminal	Mates with 43178 Terminal and 43160 Headers Used in 44441 Housings			
Single Row Housings						
	43680	Plug Housing	Mates with 44441	Nylon, UL 94V-0 or UL 94V-2	2, 3, 4, 5 and 6 Circuits	• Positive thumblatch on receptacle prevents accidental disengagement with plug or header • Receptacle thumblatch has anti-tangle design to prevent breakage during harness assembly and improves production handling • Polarized housing helps prevent improper mating • 43680 plug housings meet UL 1950 finger proofing requirements when used with designated 43178 male terminals. 44441 receptacle housings meet same requirement when used with standard 43375 female terminals
	44441	Receptacle Housing	Mates with 43680 and 43160			
Single Row Headers						
	43160	Vertical Header	Mates with 44441	Glass-filled Nylon, UL 94V-0	2, 3, 4, 5 and 6 Circuits	• Individual part numbers available to match 1.57, 2.36 or 3.17mm (.062, 093 or .125") PCB thicknesses • Optional PCB retention clips for secure retention of the header to the PCB prior to and during the solder process • Special part numbers available upon request that meet UL 1950 finger proofing requirements
		Right Angle Header				

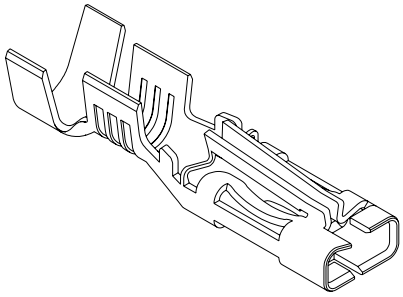
*Wave solder compatible only

Terminal TPA Activation/Deactivation and Extraction Hand Tools

	Order No.	Used With	Features and Benefits
	63813-0500	44441 Receptacle Housing 43375 Female Terminal	• Female terminal extraction • TPA activation • TPA de-activation
	63813-0600	43680 Plug Housing 43178 Male Terminal	• Male terminal TPA activation • TPA de-activation
	63813-0800		• Male terminal extraction

7.50mm (.295") Pitch Sabre™ Wire-to-Wire or Wire-to-Board Terminal

43375
Female



Features and Benefits
- Patented new integral Terminal Position Assurance (TPA) on female and male terminal virtually eliminates terminal backout
- Four points of electrical contact
- Wire-to-wire; wire-to-board

Reference Information
Product Specification: PS-44441-9999
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: TBA
Use With: 44441 housing

Electrical
Current: 18.0A max.*
Voltage: 600V
Contact Resistance: 10 milliohms max.

Mechanical
Mating Force: 13.3N max.
Unmating Force: 2.2N min.
Normal Force: 13.34N nominal per contact
Mating Cycles: 25

Physical
Contact: Brass
Plating: Tin
Wire Gauge: 14, 16, 18 AWG
Insulation Diameter: 4.57mm (.180") max

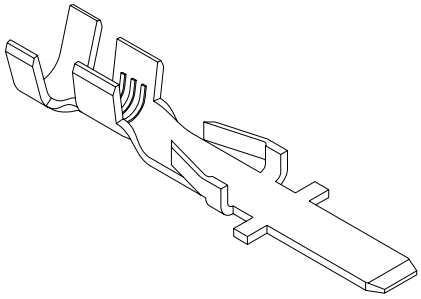
* Depending on circuit size, wire gauge and PCB. Please refer to product specification.

Order No.	Plating	Wire Size AWG	Maximum Insulation Diameter	Packaging	Lead-free
43375-0001	Tin	14-18	3.30 (.130)	Chain	Yes
†43375-1001			4.57 (.180)		

† Accommodates single 14, 16 or 18 AWG wire crimps or double 18 AWG wire crimps

7.50mm (.295") Pitch Sabre™ Wire-to-Wire Terminal

43178
Male



Features and Benefits
- Patented new integral Terminal Position Assurance (TPA) on male and female terminal virtually eliminates terminal backout
- Accommodates 14 to 18 gauge wire
- Four points of electrical contact
- Wire-to-wire

Reference Information
Product Specification: PS-44441-9999
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: TBA
Use With: 43680 housing

Electrical
Voltage: 600V
Current: 18.0A max.*
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 5000V
Insulation Resistance: 1000 Megohms min.

Mechanical
Mating Force: 13.3N max.
Unmating Force: 2.2N min.
Normal Force: 13.34N nominal
Durability: 25 cycles

Physical
Contact: Brass
Plating: Tin
Wire Gauge: 14, 16, 18 AWG
Insulation Diameter: 4.57mm (.180") max.

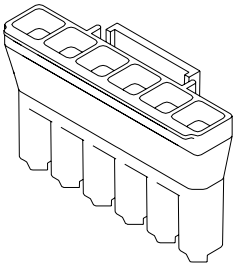
* Depending on circuit size and wire gauge. Please refer to product specification.

Order No.	Wire Size AWG	Maximum Insulation Diameter	Packaging	Lead-free
43178-1002	18	3.30 (.130)	Chain	Yes
†43178-2002	14-18	4.57 (.180)		

† Accommodates single 14, 16 or 18 AWG wire crimps, or double 18 AWG wire crimps

7.50mm (.295") Pitch Sabre™ Receptacle

44441
Single Row



Features and Benefits
- Patented new integral Terminal Position Assurance (TPA) on mated male and female terminal virtually eliminates terminal backout
- Wire-to-wire and wire-to-board connector system
- Polarized housing assures proper mating
- Terminals are fully isolated in housing
- Positive latch reduces accidental disengagement from plug

Reference Information
Product Specification: PS-44441-9999
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: TBA
Use With: 43375 terminal
Mates With: 43160 header and 43680 plug

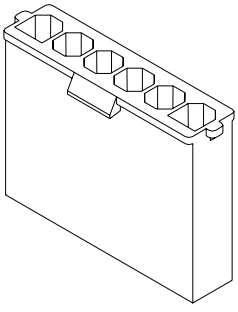
Mechanical
Contact Insertion Force: 8.90N max.
Contact Retention to Housing: 88.96N min.

Physical
Housing: Nylon, UL 94V-2 or 94V-0

Circuits	Order No.	
	94V-2	94V-0
2	44441-1002	44441-2002
3	44441-1003	44441-2003
4	44441-1004	44441-2004
5	44441-1005	44441-2005
6	44441-1006	44441-2006

7.50mm (.295") Pitch Sabre™ Wire-to-Wire Plug

43680
Single Row



Features and Benefits
- Patented new integral Terminal Position Assurance (TPA) on mated male and female terminal virtually eliminates terminal backout
- Polarized housing assures proper mating
- Terminals are fully isolated in housing
- Positive latch reduces accidental disengagement from receptacle

Reference Information
Product Specification: PS-44441-9999
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: TBA
Use With: 43178 terminal
Mates With: 44441 receptacle

Mechanical
Contact Insertion Force: 8.90N max.
Contact Retention to Housing: 88.96N min.

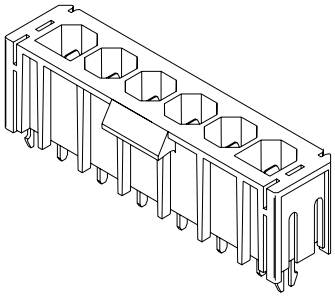
Physical
Housing: Nylon, UL 94V-2 or 94V-0

Circuits	Order No.	
	94V-0	94V-2
2	43680-2002	43680-1002
3	43680-2003	43680-1003
4	43680-2004	43680-1004
5	43680-2005	43680-1005
6	43680-2006	43680-1006

7.50mm (.295") Pitch Sabre™ Wire-to-Board Header

43160

Vertical, Single Row With and without Board Lock



Features and Benefits

- Sizes 2 to 6 circuits
- Optional board lock features offered in 1.57, 2.36 and 3.18mm (.062, .093 and .125) lengths
- Positive lock
- Fully polarized
- Wire-to-board

Reference Information

Product Specification: PS-44441-9999
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: TBA
Mates With: 44441 housing

Electrical

Voltage: 600V
Current: 18.0A max.*
Contact Resistance: 10 milliohms max.

Mechanical

Insertion Force to PCB: 22.24N max.
Mating Cycles: 25

Physical

Housing: Black glass-filled nylon, UL 94V-0 or natural unfilled nylon, UL 94V-2
Contact: Brass
Plating: Tin

* Depending on circuit size, wire gauge and PCB. Please refer to product specification.

Without Board Lock

Circuits	Order No.		PC Tail Length	Lead-free
	94V-0	94V-2		
2	43160-0102	43160-0202	3.81 (.150)	Yes
	43160-0302	43160-0402	5.33 (.210)	
3	43160-0103	43160-0203	3.81 (.150)	
	43160-0303	43160-0403	5.33 (.210)	
4	43160-0104	43160-0204	3.81 (.150)	
	43160-0304	43160-0404	5.33 (.210)	
5	43160-0105	43160-0205	3.81 (.150)	
	43160-0305	43160-0405	5.33 (.210)	
6	43160-0106	43160-0206	3.81 (.150)	
	43160-0306	43160-0406	5.33 (.210)	

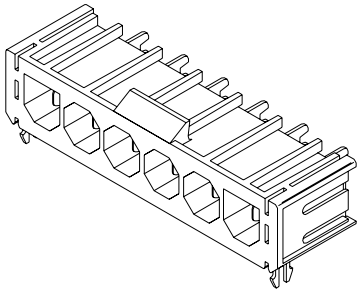
With Board Lock

Circuits	Order No.		PCB Thickness	Lead-free
	94V-0	94V-2		
2	43160-2102	43160-2202	1.57 (.062)	Yes
	43160-4302	43160-4402	2.36 (.093)	
	43160-6302	43160-6402	3.18 (.125)	
3	43160-2103	43160-2203	1.57 (.062)	
	43160-4303	43160-4403	2.36 (.093)	
	43160-6303	43160-6403	3.18 (.125)	
4	43160-2104	43160-2204	1.57 (.062)	
	43160-4304	43160-4404	2.36 (.093)	
	43160-6304	43160-6404	3.18 (.125)	
5	43160-2105	43160-2205	1.57 (.062)	
	43160-4305	43160-4405	2.36 (.093)	
	43160-6305	43160-6405	3.18 (.125)	
6	43160-2106	43160-2206	1.57 (.062)	
	43160-4306	43160-4406	2.36 (.093)	
	43160-6306	43160-6406	1.57 (.125)	

7.50mm (.295") Pitch Sabre™ Wire-to-Board Header

43160

Right Angle, Single Row With and without Board Lock



Features and Benefits

- Sizes 2 to 6 circuits
- Wire-to-board
- Optional board lock features offered in 1.57, 2.36 and 3.18mm (.062, .093 and .125") lengths
- Positive lock
- Fully polarized

Reference Information

Product Specification: PS-44441-9999
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: TBA
Mates With: 44441 housing

Electrical

Voltage: 600V
Current: 18.0A max.*
Contact Resistance: 10 milliohms max.

Mechanical

Insertion Force to PCB: 22.24N max.
Normal Force: 13.34N nominal
Mating Cycles: 25

Physical

Housing: Black glass-filled nylon, UL 94V-0 or natural unfilled nylon UL 94V-2
Contact: Brass
Plating: Tin

* Depending on circuit size, wire gauge and PCB. Please refer to product specification.

Without Board Lock				
Circuits	Order No.		PC Tail Length	Lead-free
	94V-0	94V-2		
2	43160-1102	43160-1202	3.81 (.150)	Yes
	43160-1302	43160-1402	5.33 (.210)	
3	43160-1103	43160-1203	3.81 (.150)	
	43160-1303	43160-1403	5.33 (.210)	
4	43160-1104	43160-1204	3.81 (.150)	
	43160-1304	43160-1404	5.33 (.210)	
5	43160-1105	43160-1205	3.81 (.150)	
	43160-1305	43160-1405	5.33 (.210)	
6	43160-1106	43160-1206	3.81 (.150)	
	43160-1306	43160-1406	5.33 (.210)	

With Board Lock				
Circuits	Order No.		PCB Thickness	Lead-free
	94V-0	94V-2		
2	43160-3102	43160-3202	1.57 (.062)	Yes
	43160-5302	43160-5402	2.36 (.093)	
	43160-7302	43160-7402	3.18 (.125)	
3	43160-3103	43160-4203	1.57 (.062)	
	43160-5303	43160-5403	2.36 (.093)	
	43160-7303	43160-7403	3.18 (.125)	
4	43160-3104	43160-3204	1.57 (.062)	
	43160-5304	43160-5404	2.36 (.093)	
	43160-7304	43160-7404	3.18 (.125)	
5	43160-3105	43160-3205	1.57 (.062)	
	43160-5305	43160-5405	2.36 (.093)	
	43160-7305	43160-7405	3.18 (.125)	
6	43160-3106	43160-3206	1.57 (.062)	
	43160-5306	43160-5406	2.36 (.093)	
	43160-7306	43160-7406	3.18 (.125)	

Specialty Power Connectors Introduction

The connectors shown in this Specialty Connector section offer the high current capabilities used in power applications, along with special features to meet unique industry needs. Included here are new wire-to-wire and wire-to-board connectors with Terminal Retainer features. These connectors utilize a flat male tab and female receptacle contact system that offers low insertion force and rugged features for low-circuit size applications in the white goods, automotive and other harsh environments.

3.96 (.156) and 6.50mm (.246") Pitch iLock™ Connectors

This iLock is offered in the industry standard 3.96mm pitch size for both wire-to-wire and wire-to-board applications. The system's female terminal also is used with a similar 6.50mm (.256") pitch wire-to-board series.

Features	*Benefits*
9A max., 600V	Ideal for white goods applications
Long tab-style terminal	Low insertion force and secure contact
Inner positive lock	Easy attachment and secure mating retention
Terminal locking tangs	Guide for retainer
Housing side walls	Protect latch and facilitate mating
Housing side ribs	Polarization
One-piece locking ears	Good spring characteristics and secure panel retention
Terminal Retainer	Additional terminal retention and easy attachment
Header snap-fit pegs	Secure PCB retention
Stand-offs	Prevent flux wicking
UL 94V-0 material	Withstands harsh environments

1.80mm (.070") Pitch VersaBlade™ Wire-to-Wire Connectors

Molex's line of 1.80mm (.070") VersaBlade wire-to-wire connectors are designed around the system's industry standard .070" width male "tab"-style terminal. This terminal system has gained wide usage in the white goods and automotive markets, particularly in the Far East.

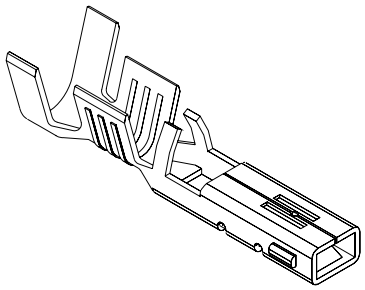
Features	*Benefits*
15A max., 300V	Meets white goods, automotive and other power requirements
Wide 1.80mm (.070") male tab contact	Enables high current carrying capability
Low insertion force	Easy mating/unmating even for larger circuit sizes
Dual-row system	Provides good heat dissipation and lower engagement forces than 3-rows
TPA secondary lock	Ensures high reliability terminal seating and contact
Housing locking terminal	Prevents terminal deformation
Terminal dimples and housing polarization features	Prevents incorrect terminal insertion and mis-mating
Positive lock	Secure mating retention
Spring-style mounting ears	Prevent breakage
UL 94V-0 material	Withstands harsh environments

www.molex.com/product/versablade.html

1.80mm (.070") Width VersaBlade™ Wire-to-Wire Terminal

35746/35748

Female, Crimp With Polarizing Dimple



Features and Benefits

- Low insertion force
- Housing-locking feature avoids deformation of terminal
- Fully enclosed box design protects contact area from damage and provides 3 points of contact
- Accepts wide wire range (14 to 22 AWG)
- Strip length: 4.0 to 4.8mm

Reference Information

Product Specification: PS-35150
Tooling Information: Semi-automatic crimping press and applicator
Mates With: 35745 and 35747 male terminals
Use With: 35150, 35151, 35180 and 35181 housings

Electrical

Voltage: 300V
Current: 15A max. See applicable product spec.
Contact Resistance: 10 milliohms max.

Mechanical

Contact Insertion Force: 2.5kgf max.
Contact Retention to Housing: 4.0kgf min.
Wire Pull-Out Force: 14AWG—15.0kgf min.
Mating Force: 1.6kgf max.
Unmating Force: 0.5kgf min.
Mating Cycles: 30

Physical

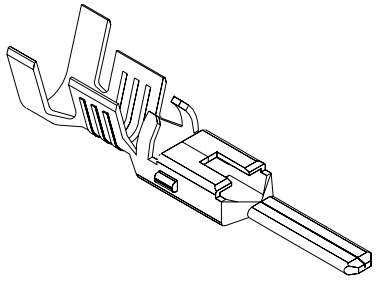
Contact: Phosphor Bronze
Plating: Tin
Wire Range: 14-22 AWG

Order No.	Wire Range AWG	Insulation Range (max.)	Packaging	Lead-free
35746/35748-0110	20-22	2.70 (.106)	Reel	Yes
35746/35748-0210	14-18	3.40 (.134)		
35746/35748-0310	18+18, 20+20	6.00 (.236)		
35746/35748-0410	24-26	2.35 (.093)		

1.80mm (.070") Width VersaBlade™ Wire-to-Wire Terminal

35745/35747

Male, Crimp With Polarizing Dimple



Features and Benefits

- Low insertion force
- Housing-locking feature avoids deformation of terminal
- Accepts wide wire range (14 to 22 AWG)
- Strip length: 4.0 to 4.5mm

Reference Information

Product Specification: PS-35150
Tooling Information: Semi-automatic crimping press and applicator
Mates With: 35746 and 35748 female terminals
Use With: 35150, 35151, 35180 and 35181 housings

Electrical

Voltage: 300V
Current: 15A max. See applicable product spec.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force: 2.5kgf max.
Contact Retention to Housing: 4.0kgf min.
Wire Pull-Out Force: 14AWG—15.0kgf min.
Mating Force: 1.6kgf max.
Unmating Force: 0.5kgf min.
Mating Cycles: 30

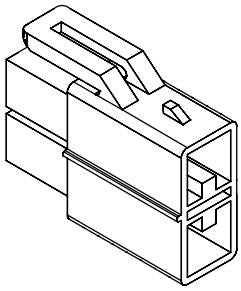
Physical

Contact: Brass
Plating: Tin

Order No.	Wire Range AWG	Insulation Range (max.)	Lead-free
35745/35747-0110	20-22	2.70 (.106)	Yes
35745/35747-0210	14-18	3.40 (.134)	
35745/35747-0310	18+18, 20+20	6.00 (.236)	
35745/35747-0410	24-26	2.35 (.093)	

1.80mm (.070") Tab VersaBlade™ Wire-to-Wire Female Housing

35181



Circuits	Order No.
2	35181-0200
	35181-0210
	35181-0220
	35181-0229

Features and Benefits
- Polarization prevents mismating
- Housing-locking feature avoids deformation of terminal
- Fully-enclosed box design protects contact area from damage
- Accepts 35182-019 TPA secondary lock

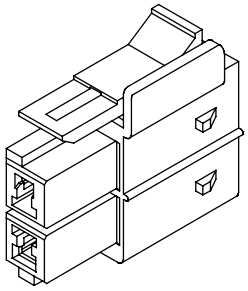
Reference Information
Product Specification: PS-35180-002
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R9551811
Mates With: 35180
Use With: 35182, 35746 and 35748

Mechanical
Contact Insertion Force: 29.4N (6.61 lb)
Contact Retention to Housing: 39N (8.77 lb)

Physical
Housing: Polyester, UL 94V-0

1.80mm (.070") Tab VersaBlade™ Wire-to-Wire Housing

35965
Female



Circuits	Order No.
2	35965-0200
	35965-0210
	35965-0220
	35965-0290
	35965-9200
	35965-9210
	35965-9220

Features and Benefits
- Polarization prevents mismating
- Housing-locking feature avoids deformation of terminal
- Fully enclosed box design protects contact area from damage
- Accepts 35965-029 TPA secondary lock

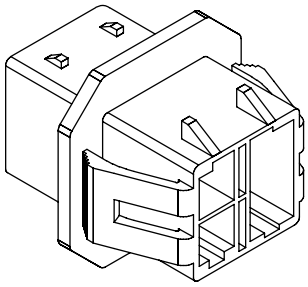
Reference Information
Product Specification: PS-35180-002
Mates With: 35180
Use With: 35746, 35748 and 35965

Mechanical
Contact Insertion Force: 29.4N (6.61 lb)
Contact Retention to Housing: 39N (8.77 lb)

Physical
Housing: Polyester, UL 94V-0

1.80mm (.070") Tab VersaBlade™ Wire-to-Wire Male Housing

35180



Circuits	Order No.
4	35180-0400
6	35180-0600

Features and Benefits

- Polarization prevents mismating
- Mounting ears snap firmly into place
- Housing-locking feature avoids deformation of terminal
- Fully-enclosed box design protects contact area from damage
- Accepts 35182-029 TPA secondary lock
- Hybrid connector accommodates 4 types of terminals: female terminals 35746 and 35748, and male terminals 35745 and 35747

Reference Information

Product Specification: PS-35180-002
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R9551811
Mates With: 35181 and 35965
Use With: 35182, 35745, 35746, 35747 and 35748

Mechanical

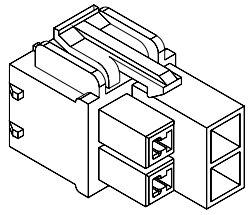
Contact Insertion Force: 29.4N (6.61 lb)
Contact Retention to Housing: 39N (8.77 lb)

Physical

Housing: Polyester, UL 94V-0

1.80mm (.070") Width VersaBlade™ Wire-to-Wire Hybrid Receptacle

35151



Circuits	Order No.
1	35151-0110
2	35151-0210
3	35151-0310
4	35151-0410
6	35151-0610

Features and Benefits

- Sizes 1 to 6 circuits
- Hybrid connector accommodates 4 types of terminals
- Positive lock ensures secure mating
- Polarization prevents mismating
- Accepts 35150 TPA secondary lock

Reference Information

Product Specification: PS-35150
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: R9551811
Mates With: 35150 housing
Use With: 35745, 35746, 35747 and 35748 terminals

Mechanical

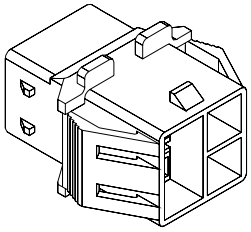
Contact Insertion Force: 2.5kgf max.
Contact Retention to Housing: 4.0kgf min.
Mating Force: 5.0kgf max.
Unmating Force: 1.5kgf min.
Mating Cycles: 30

Physical

Housing: Polyester, UL 94V-0

1.80mm (.070") Width VersaBlade™ Wire-to-Wire Hybrid Plug

35150



Circuits	Order No.
1	35150-0100
2	35150-0210
3	35150-0310
4	35150-0410
6	35150-0610

Features and Benefits

- Sizes 1 to 6 circuits
- Hybrid connector accommodates 4 types of terminals
- Positive lock ensures secure mating
- Optional mounting ears snap firmly into place
- Polarization prevents mismating
- Accepts 35150 TPA secondary lock

Reference Information

Product Specification: PS-35150
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: R9551811
Mates With: 35151 housing
Use With: 35745, 35746, 35747 and 35748 terminals

Mechanical

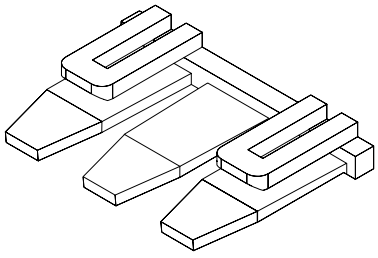
Contact Insertion Force: 2.5kgf max.
Contact Retention to Housing: 4.0kgf min.
Mating Force: 5.0kgf max.
Unmating Force: 1.5kgf min.
Mating Cycles: 30

Physical

Housing: Polyester, UL 94V-0

1.80mm (.070") Width VersaBlade™ Wire-to-Wire TPA Secondary Lock

35150/35182



Circuits	Order No.
1	35182-0190
2	35150-0290
3	35150-0390

Features and Benefits

- TPA (Terminal Positioning Assurance) secondary lock ensures that terminals are fully inserted during harness assembly
- Prevents wire pull-out and adds additional stability during mating
- An audible "click" lets the operator know when the TPA lock is inserted

Reference Information

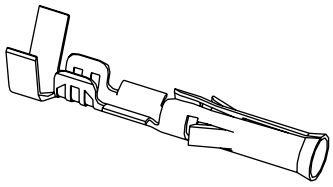
Product Specification: PS-35150
Use With: 35150 and 35151 housings

Physical

Housing: Polyamide, UL 94V-2

2.36mm (.093") Pin Diameter .093" Pin and Socket Female Crimp Terminal

Standard .093" and 3191



Features and Benefits
- Round contact design for easy insertion into housing
- Can be used in plug or receptacle
- Accommodates 14 to 30 gauge wire
- Available in crimp or PC tail versions

Reference Information
UL File No.: E29179
CSA File No.: LR19980
Designed In: Inches

Electrical
Current: Standard Terminal—14.0A max.*
High Current Terminal—17.0A max.*
Contact Resistance: 10 milliohms max.

Mechanical
Contact Insertion Force: 22.29N max.
Contact Retention Force: 88.96N min.
Mating force: 15.57N max.
Unmating Force: 4.45N max.
Durability: Tin plating—25 cycles max.
Gold plating—50 cycles max.

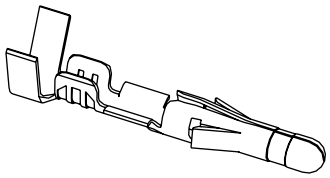
Physical
Contact: Brass or Phosphor Bronze
Plating: Tin or Gold
Strip Length: See tooling section

* Depending on circuit size and wire gauge. Please refer to product specifications

Type	Plating	Crimp Wire Size	Insulation Diameter	Series	Order No.		Lead-free
					Chain Form	Loose Form	
Standard Brass .010"	Tin	14-20	1.65/4.06 (.065/.160)	1189	02-09-1102	02-09-1104	Yes
		18-22	1.52/3.05 (.060/.120)	1381	02-09-1117	02-09-1119	
		22-24	1.27/1.78 (.050/.070)	2871	02-09-1138	02-09-1139	
		24-30	0.76/1.52 (.030/.060)	1433	02-09-1142	02-09-1144	
	15µ" Gold	14-20	1.65/4.06 (.065/.160)	1189	02-09-5100	02-09-5106	
		18-22	1.52/3.05 (.060/.120)	1381	02-09-5143	02-09-5142	
		24-30	0.76/1.52 (.030/.060)	1433	02-09-5146	02-09-5147	
	50µ" Gold	14-20	1.65/4.06 (.065/.160)	1189	02-09-5102	02-09-5111	
		18-22	1.52/3.05 (.060/.120)	1381	02-09-5130	02-09-5133	
.013" High Current/Low Force	Tin	14-18	3.56 (.140) max.	42477	02-09-1615	02-09-1616	
PC Tail for Standard .093" Housing	Tin			1377		02-09-1134	
	30µ" Gold					02-09-5132	
Phos-Bronze .010"	Tin	14-20	1.65/4.06 (.065/.160)	4550	02-09-1205	02-09-1206	
		18-22	1.52/3.05 (.060/.120)	2151	02-09-1203	02-09-1204	
	30µ" Gold	14-20	1.65/4.06 (.065/.160)	4550	02-09-5169	02-09-5170	

2.36mm (.093") Pin Diameter .093" Pin and Socket Male Crimp Terminal

Standard .093" and 3191



Features and Benefits
- Round contact design for easy insertion into housing
- Can be used in plug or receptacle
- Accommodates 14 to 30 gauge wire
- Available in crimp or PC tail versions

Reference Information
UL File No.: E29179
CSA File No.: LR19980

Electrical
Current: Standard terminal—14.0A max.*
High Current Terminal—17.0A max.*
Contact Resistance: 10 milliohms max

Mechanical
Contact Insertion Force: 22.24N max.
Contact Retention Force: 88.96N min.
Mating Force: 15.57N max.
Unmating Force: 4.45N max.
Durability: Tin plating—25 cycles max.
Gold plating—50 cycles max.

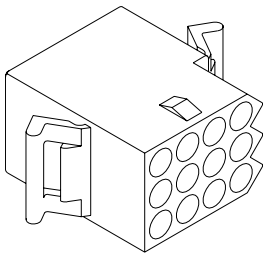
Physical
Contact: Brass or Phosphor Bronze
Plating: Tin or Gold

* Depending on circuit size and wire gauge; please refer to product specifications

Type	Plating	Crimp Wire Size	Insulation Diameter	Series	Order No.		Lead-free
					Chain Form	Loose Form	
Standard Brass .010"	Tin	14-20	1.65/4.06 (.065/.160)	1190	02-09-2101	02-09-2103	Yes
		18-22	1.52/3.05 (.060/.120)	1380	02-09-2116	02-09-2118	
		22-24	1.27/1.78 (.050/.070)	2870	02-09-2136	02-09-2137	
		24-30	0.76/1.52 (.030/.060)	1434	02-09-2141	02-09-2143	
	15µ" Gold	14-20	1.65/4.06 (.065/.160)	1190	02-09-6100	02-09-6106	
		18-22	1.52/3.05 (.060/.120)	1380	02-09-6122	02-09-6123	
		24-30	0.76/1.52 (.030/.060)	1434	02-09-6144	02-09-6145	
	50µ" Gold	14-20	1.65/4.06 (.065/.160)	1190	02-09-6101	02-09-6110	
		18-22	1.52/3.05 (.060/.120)	1380	02-09-6125	02-09-6126	
Grounding Pin	Tin	14-18	1.65/3.56 (.065/.140)	1973-2	02-09-8108	02-09-8109	
		18-22	1.52/3.05 (.060/.120)	1973	02-09-8103	02-09-8104	
.013" High Current/Low Force	Tin	14-18	3.56 (.140) max.	42478	02-09-2611	02-09-2612	
PC Tail for Standard .093" Housing	Tin			1376		02-09-2134	
	30µ" Gold			1376		02-09-6132	

5.03mm (.198") Pitch .093 Pin and Socket Crimp Terminal Housing Receptacle

Standard .093"



Features and Benefits
- Passive (friction) lock
- 1 to 15 circuit housings
- Panel and PCB mountable
- Mating headers available
- Male and female terminals may be used in receptacle housing

Reference Information
UL File No.: E29179
CSA File No.: LR19980
Mates With: Standard .093" plug and 3099 headers
Use With: Standard .093" terminal

Electrical
Voltage: 250V
Current: See chart

Mechanical
Contact Retention to Housing: 88.96N min.

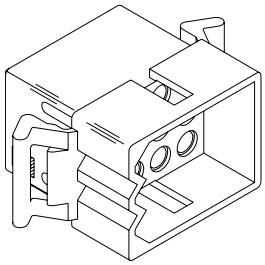
Physical
Housing: Nylon, UL 94V-2

Circuits	Series No.	Order No.		Amperes per Circuit*
		Panel Mount	Free Hanging	
1	1619	N/A	03-09-1011	14.0
2	1545	03-09-1027	03-09-1022	
3	1396	03-09-1081	03-09-1032	
4 (1 x 4)	1490	03-09-1041	03-09-1042	11.0
4 (2 x 2)	2163	03-09-1040	03-09-1049	
5	2629	N/A	03-09-1054	
6	1261	03-09-1061	03-09-1064	
9	1292	03-09-1091	03-09-1094	
12	1360	03-09-1125	03-09-1126	9.5
15	1375	03-09-1154	03-09-1157	

* Rating based on fully loaded housings and 14 AWG wire

5.03mm (.198") Pitch .093" Pin and Socket Crimp Terminal Housing Plug

Standard .093"



Features and Benefits
- Passive (friction) lock
- 1 to 15 circuit housings
- Panel and PCB mountable
- Male and female terminals may be used in plug housing

Reference Information
UL File No.: E29179
CSA File No.: LR19980
Mates With: Standard .093" receptacle
Use With: Standard .093" terminal

Electrical
Voltage: 250V
Current: See chart

Mechanical
Contact Retention to Housing: 20 lb min.

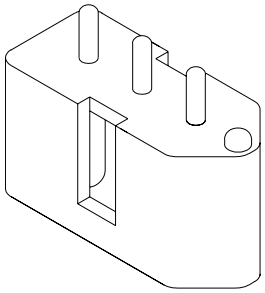
Physical
Housing: Nylon, UL 94V-2

Circuits	Series No.	Order No.		Amperes per Circuit*
		Panel Mount	Free Hanging	
1	1619	N/A	03-09-2011	14.0
2	1545	03-09-2021	03-09-2022	
3	1396	03-09-2031	03-09-2032	
4 (1 x 4)	1490	03-09-2041	03-09-2042	11.0
4 (2 x 2)	2163	03-09-2040	03-09-2049	
5	2629	N/A	03-09-2057	
6	1261	03-09-2061	03-09-2062	
9	1292	03-09-2091	03-09-2092	
12	1360	03-09-2122	03-09-2121	9.5
15	1375	03-09-2159	03-09-2158	

* Rating based on fully loaded housings and 14 AWG wire

5.03mm (.198") Pitch .093" Pin and Socket Shrouded Header

3099



Features and Benefits
- 3, 4, 6, 9, 12 and 15 circuits available
- Pre-assembled
- Intermix of male and female terminals for polarization
- Polarized housing design assures proper mating

Reference Information
UL File No.: E29179
CSA File No.: LR19980
Mates With: Standard .093" receptacles
Use With: 1840 header as a board-to-board connector (contact Molex for details)

Electrical
Voltage: 250V
Current: 5.0A max.
Contact Resistance: 10 milliohms max.

Mechanical
Mating Force: 15.6N max.
Unmating Force: 6.7N min.
Mating Cycles: 25

Physical
Housing: Polyester, UL 94V-0
Contact: Male—Brass, Female—Phosphor Bronze
Plating: Tin

Circuits	Order No.	Terminal Pattern				Lead-free
		1	2	3	4	
3	10-18-1031	M	B	M		Yes
	10-18-1032	M	M	M		
	10-18-1033	F	M	M		
	10-18-1034	M	F	M		
	10-18-1035	M	M	F		
	10-18-1036	M	F	B		
	10-18-1037	M	F	F		
	10-18-1038	F	F	F		
	50-29-1031	B	B	B		
4	10-18-1041	M	M	M	M	
	10-18-1042	F	F	F	F	
	10-18-1043	F	M	M	M	
	10-18-1044	M	F	F	F	
	10-18-1045	M	M	F	F	
	10-18-1046	M	M	M	F	
	10-18-1047	M	F	M	M	
	10-18-1048	M	M	F	M	
	10-18-1049	M	F	M	F	
	10-18-1050	F	F	M	M	
	10-18-1040	F	M	B	B	
	50-29-1041	B	B	B	B	

M = Male terminal, F = Female terminal, B = Blank, no terminal

Circuits	Order No.	Terminal Pattern														Lead-free
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
6	10-18-1061	M	M	M	M	M	M										Yes
	10-18-1063	M	F	M	M	F	M										
	38-00-0589	F	M	M	M	F	M										
	38-00-0590	M	M	M	F	M	M										
	10-18-1064	M	M	M	M	M	F										
	10-18-1065	F	M	M	M	M	M										
	50-29-1061	B	B	B	B	B	B										
9	10-18-1090	M	M	M	M	M	M	M	M	M							
	50-29-1409	B	B	B	B	B	B	B	B	B							
12	10-18-1120	M	M	M	M	M	M	M	M	M	M	M	M				
	50-29-1412	B	B	B	B	B	B	B	B	B	B	B	B				
15	10-18-1150	M	M	M	M	M	M	M	M	M	M	M	M	M	M	M	
	50-29-1415	B	B	B	B	B	B	B	B	B	B	B	B	B	B	B	

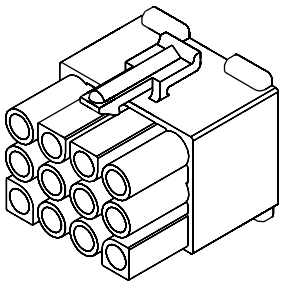
Order No. for Loose Terminals	
Male	16-06-0002
Female	43080-0001

Assembly Tooling*	
Description	Order No.
Arbor Press with Universal Tool Kit	11-20-1172

* Used for assembling blank housings and loose terminals

6.71mm (.264") Pitch .093" Pin and Socket Crimp Terminal Housing Receptacle

3191



Features and Benefits
- Positive lock
- Fully isolated terminals
- Polarized housing assures proper mating
- Male and female terminals may be used in receptacle housing

Reference Information
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75107
Mates With: 5219 header and 3191 plug
Use With: Standard .093" terminal

Electrical
Voltage: 600V
Current: 12.0A max.*

Mechanical
Contact Retention to Housing: 20 lb min.

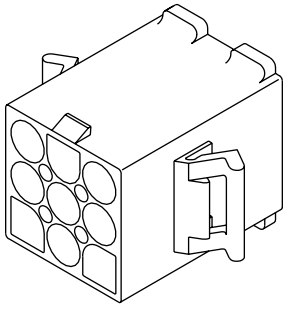
Physical
Housing: Nylon, UL 94V-0 or 94V-2

* Depending on circuit size and wire gauge; please refer to product specifications

Circuits	Order No.		Amperes per Circuit
	94V-2	94V-0	
1	19-09-1019	19-09-1016	12
2	19-09-1029	19-09-1026	
3	19-09-1039	19-09-1036	11
4	19-09-1049	19-09-1046	9
6	19-09-1069	19-09-1066	
9	19-09-1099	19-09-1096	
12	19-09-1129	19-09-1126	
15	19-09-1159	19-09-1156	

6.71mm (.264") Pitch .093" Pin and Socket Crimp Terminal Housing Plug

3191



Features and Benefits
- Positive lock
- Fully isolated terminals
- Polarized housing assures proper mating
- Male and female terminals may be used in plug housing

Reference Information
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75107
Mates With: 3191 receptacle
Use With: Standard .093" terminal

Electrical
Voltage: 600V
Current: 12.0A max.*

Mechanical
Contact Retention to Housing: 20 lb min.

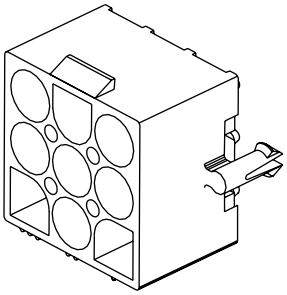
Physical
Housing: Nylon, UL 94V-0 or 94V-2

* Depending on circuit size and wire gauge; please refer to product specifications

Circuits	Order No.				Amperes per Circuit
	Panel Mount		Free Hanging		
	94V-2	94V-0	94V-2	94V-0	
1	19-09-2018	19-09-2017	19-09-2019	19-09-2016	12
2	19-09-2028	19-09-2027	19-09-2029	19-09-2026	
3	19-09-2038	19-09-2037	19-09-2039	19-09-2036	11
4	19-09-2048	19-09-2047	19-09-2049	19-09-2046	9
6	19-09-2068	19-09-2067	19-09-2069	19-09-2066	
9	19-09-2098	19-09-2097	19-09-2099	19-09-2096	
12	19-09-2128	19-09-2127	19-09-2129	19-09-2126	
15	19-09-2158	19-09-2157	19-09-2159	19-09-2156	

6.71mm (.264") Pitch .093" Pin and Socket Header

5219



Features and Benefits

- Positive lock
- Fully isolated terminals
- Polarized housing assures proper mating

Reference Information

UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75107
Mates With: 3191 receptacle

Electrical

Voltage: 600V
Current: 12.0A max.*

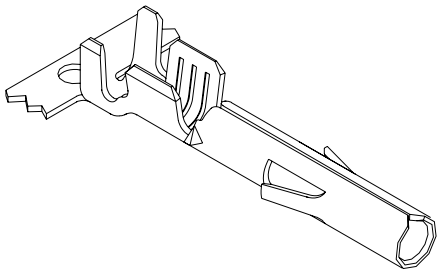
Physical

Housing: Nylon, UL 94V-2
Contact: Brass
Plating: Tin
*See product specification

Circuits	Order No.	Amperes per Circuit	Lead-free
2	15-31-1026	12	Yes
3	15-31-1036	11	
4	15-31-1046	9	
6	15-31-1066		
9	15-31-1096		

2.13mm (.084") Diameter MLX™ Pin and Socket Female Crimp Terminal

42024



Features and Benefits
- Cross tested to assure industry compatibility
- Can be terminated with Molex or commercially available terminating equipment
- Split pin (male) for reduced mating forces

Reference Information
Product Specification: PS-42022-0001
UL File No.: E29179
CSA File No.: LR19980
Use With: 42021 and 42022 housings

Electrical
Voltage: 600V
Current: 13.5A*
Contact Resistance: 3.5 milliohms max.

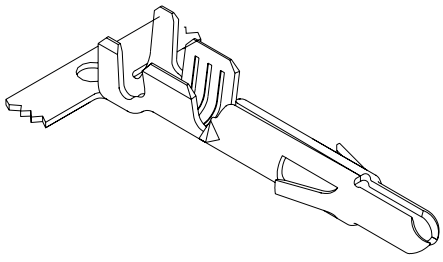
Mechanical
Contact Insertion Force: 8.92N (2 lb)
Mating Force: 6.68N (1.5 lb) max.
Unmating Force: 4.46 (0.5 lb) min.
Mating Cycles: Tin plating—25 mating/unmating cycles
Gold plating—50 mating/unmating cycles

Physical
Contact: Brass or Phosphor Bronze
Plating: Tin
*See product specification

Type	Plating	Wire Size AWG	Insulation Diameter	Series	Socket		Lead-free
					Reel Form	Bag Form	
Standard Brass .012"	Tin	14-20	1.52 (.060) min. 3.30 (.130) max.	42024	02-08-1001	02-08-1002	Yes
Phosphor Bronze .012"					02-08-1003	02-08-1004	

2.13mm (.084") Diameter MLX™ Pin and Socket Male Crimp Terminal

42023



Features and Benefits
- Cross tested to assure industry compatibility
- Can be terminated with Molex or commercially available terminating equipment
- Split pin (male) for reduced mating forces

Reference Information
Product Specification: PS-42022-0001
UL File No.: E29179
CSA File No.: LR19980
Use With: 42021 and 42022 housings

Electrical
Voltage: 600V
Current: 13.5A*
Contact Resistance: 3.5 milliohms max.

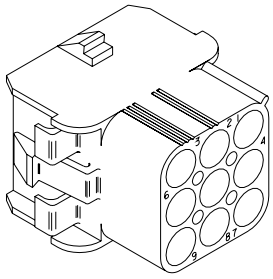
Mechanical
Contact Insertion Force: 8.92N (2 lb)
Mating Force: 6.68N (1.5 lb) max.
Unmating Force: 4.46 (0.5 lb) min.
Mating Cycles: Tin plating—25 mating/unmating cycles
Gold plating—50 mating/unmating cycles

Physical
Contact: Brass or Phosphor Bronze
Plating: Tin
*See product specification

Type	Plating	Wire Size AWG	Insulation Diameter	Series	Split Pin		Lead-free
					Reel Form	Bag Form	
Standard Brass .012"	Tin	14-20	1.52 (.060) min. 3.30 (.130) max.	42023	02-08-2003	02-08-2004	Yes
Phosphor Bronze .012"					02-08-2005	02-08-2006	

2.13mm (.084") Diameter MLX™ Pin and Socket Crimp Terminal Housing Receptacle

42022



Features and Benefits
- Intermateable, intermountable and interchangeable with industry-standard versions
- Cross tested to assure industry compatibility
- Positive locks
- Fully isolated contacts
- Circuit ID grooves to reduce assembly errors
- Anti-stress positioning tabs to reduce breakage

Reference Information
Product Specification: PS-42022-0001
UL File No.: E29179
CSA File No.: LR19980

Electrical
Voltage: 600V
Current: See product specification for detail

Circuits							
1	2	3	4	6	9	12	15
13.5A	13.5A	13.5A	13.5A	11.0A	11.0A	11.0A	11.0A

Mechanical
Contact Retention to Housing: 66.88N (15 lb)

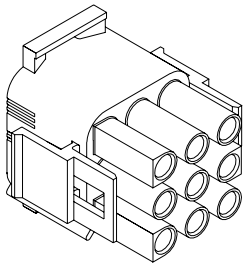
Physical
Cap Housing: Nylon, 94V-2 or 94V-0

Circuits	Order No.		
	94V-2 (White)	94V-0 (Brick Red)	94V-0 (White)
1	50-84-2010	50-84-2011	50-84-2012
2	50-84-2020	50-84-2021	50-84-2022
3	50-84-2030	50-84-2031	50-84-2032
4	50-84-2040	50-84-2041	50-84-2042
6	50-84-2060	50-84-2061	50-84-2062
9	50-84-2090	50-84-2091	50-84-2092
12	50-84-2120	50-84-2121	50-84-2122
15	50-84-2150	50-84-2151	50-84-2152

Cap housing should be installed into panel in the same direction as the panel cutout is punched

2.13mm (.084") Diameter MLX™ Pin and Socket Crimp Terminal Housing Plug

42021



Features and Benefits
- Intermateable, intermountable and interchangeable with industry-standard versions
- Cross tested to assure industry compatibility
- Positive locks
- Fully isolated contacts
- Circuit ID grooves to reduce assembly errors
- Anti-stress positioning tabs to reduce breakage

Reference Information
Product Specification: PS-42022-0001
UL File No.: E29179
CSA File No.: LR19980
Mates With: 42002 header, 42022 cap and 43255 header

Electrical
Voltage: 600V
Current: See product specification for detail

Circuits							
1	2	3	4	6	9	12	15
13.5A	13.5A	13.5A	13.5A	11.0A	11.0A	11.0A	11.0A

Dielectric Withstanding Voltage: 2900V (Header), 5000V (Wire-To-Wire)
Insulation Resistance: 1000 Megohms min.

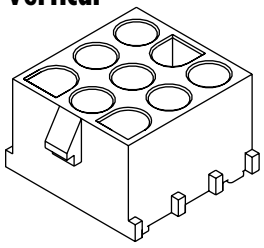
Mechanical
Contact Retention to Housing: 66.88N (15 lb)

Physical
Plug Housing: Nylon, 94V-2 or 94V-0

Circuits	Amperes/Circuit (Max.)	Order No.		
		94V-2 (White)	94V-0 (Brick Red)	94V-0 (White)
1	13.5	50-84-1010	50-84-1011	50-84-1015
2		50-84-1020	50-84-1021	50-84-1025
3		50-84-1030	50-84-1031	50-84-1035
4		50-84-1040	50-84-1041	50-84-1045
6	11	50-84-1060	50-84-1061	50-84-1065
9		50-84-1090	50-84-1091	50-84-1095
12		50-84-1120	50-84-1121	50-84-1125
15		50-84-1150	50-84-1151	50-84-1155

2.13mm (.084") Diameter MLX™ Power Connector Header

42002
Vertical



Features and Benefits
- Intermateable, intermountable and interchangeable with industry-standard versions
- Cross tested to assure industry compatibility
- Positive locks
- Fully isolated contacts

Reference Information
Product Specification: PS-42022-0001
UL File No.: E29179
CSA File No.: LR19980

Electrical
Voltage: 600V
Current: See product specification for detail

Circuits						
2	3	4	6	9	12	15
13.5A	13.5A	13.5A	11.0A	11.0A	11.0A	11.0A

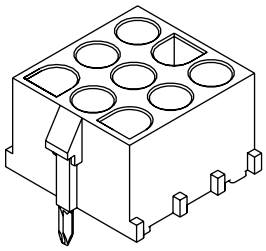
Contact Resistance: 3.5 milliohms max.

Physical
Header Housing: See Table
Header Contact: Phosphor Bronze
Plating: Tin

Circuits	Order No.				Housing	Lead-free
	White		Brick Red			
	Male	Female	Male	Female		
2	10-84-4020	10-84-4022			94V-2	Yes
	10-84-5020	10-84-5021	10-84-4021	10-84-4023	94V-0	
3	10-84-4030	10-84-4032			94V-2	
	10-84-5030	10-84-5031	10-84-4031	10-84-4033	94V-0	
4	10-84-4040	10-84-4042			94V-2	
	10-84-5040	10-84-5041	10-84-4041	10-84-4043	94V-0	
6	10-84-4060	10-84-4062			94V-2	
	10-84-5060	10-84-5061	10-84-4061	10-84-4063	94V-0	
9	10-84-4090	10-84-4092			94V-2	
	10-84-5090	10-84-5091	10-84-4091	10-84-4093	94V-0	
12	10-84-4120	10-84-4122			94V-2	
	10-84-5120	10-84-5121	10-84-4121	10-84-4123	94V-0	
15	10-84-4150	10-84-4152			94V-2	
	10-84-5150	10-84-5151	10-84-4151	10-84-4153	94V-0	

2.13mm (.084") Diameter MLX™ Power Connector Header

43255
Vertical
Polarizing Peg



Features and Benefits
- Intermateable, intermountable and interchangeable with industry-standard versions
- Cross tested to assure industry compatibility
- Positive locks
- Fully isolated contacts

Reference Information
Product Specification: PS-42022-0001
UL File No.: E29179
CSA File No.: LR19980

Electrical
Voltage: 600V*
Current: See product specification for detail

Circuits						
2	3	4	6	9	12	15
13.5A	13.5A	13.5A	11.0A	11.0A	11.0A	11.0A

* Ratings are per circuit, based on fully loaded housings

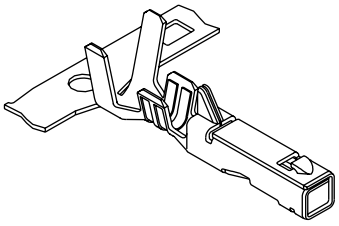
Contact Resistance: 3.5 milliohms max.

Physical
Header Housing: See Table
Header Contact: Phosphor Bronze
Plating: Tin

Circuits	Order No.						Lead-free
	UL 94V-2		UL 94V-0				
	White		White		Brick Red		
	Male	Female	Male	Female	Male	Female	
2	43255-0113	43255-0115	43255-0059	43255-0003	43255-0001	43255-0057	Yes
3	43255-0121	43255-0123	43255-0067	43255-0011	43255-0009	43255-0065	
4	43255-0129	43255-0131	43255-0075	43255-0019	43255-0017	43255-0073	
6	43255-0137	43255-0139	43255-0083	43255-0027	43255-0025	43255-0081	
9	43255-0145	43255-0147	43255-0091	43255-0035	43255-0033	43255-0089	
12	43255-0153	43255-0155	43255-0099	43255-0043	43255-0041	43255-0097	
15	43255-0161	43255-0163	43255-0107	43255-0051	43255-0049	43255-0105	

6.50mm (.256") Pitch Wire-to-Board Crimp Terminal

50597/50598
Female



Order No.	Packaging	Lead-free
50597-8000	Reel	Yes
50598-8000		
50597-8100	Bag	
50598-8100		

Features and Benefits
- Locking tang provides guide for retainer
- Housing lance holds terminal firmly in place

Reference Information
Use With: 51142
Designed In: Millimeters

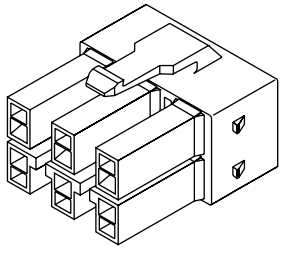
Electrical
Voltage: 600V max.
Current: 10.0A max.

Physical
Contact: Copper Alloy
Plating: Tin
Wire Range: 50597—16 to 22 AWG
50598—20 to 26 AWG
Insulation Range:
50597—2.00 to 3.30mm dia.
Note: When using retainer—2.50mm dia. max.
50598—1.25 to 2.35mm dia.
Strip Length: 2.70 to 3.30mm

www.molex.com/customer.html?seriesNumber=50597

6.50mm (.256") Pitch Wire-to-Board Receptacle

51142



Circuits	Order No.
2	51142-0200
4	51142-0400
6	51142-0600

Features and Benefits
- Sizes 2, 4 and 6 circuits
- Inner positive lock provides easy attachment and secure mating retention
- Polarizing guide walls

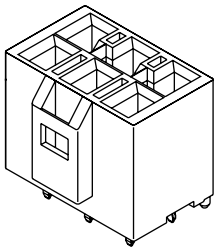
Reference Information
Product Specification: PS-51142-003
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Mates With: 53721 and 53728
Use With: 50597 and 50598
Applicable Retainer: 51143
Designed In: Millimeters

Electrical
Voltage: 600V max.
Current: 10.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: PBTP, UL 94V-0

6.50mm (.256") Pitch Wire-to-Board Header

53728
Vertical with Peg



Circuits	Order No.	Lead-free
2	53728-0219	Yes
4	53728-0419	
6	53728-0619	

Features and Benefits
- Sizes 2, 4 and 6 circuits
- Inner positive lock provides easy attachment and secure mating retention
- Stand-offs prevent flux wicking
- Locating peg for placement guidance and polarization

Reference Information
Product Specification: PS-51142-003
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51142
Designed In: Millimeters

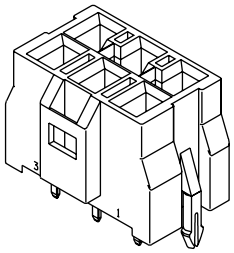
Electrical
Voltage: 600V max.
Current: 10.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Glass-filled Nylon, UL 94V-0
Contact: Copper Alloy
Plating: Tin over Nickel

www.molex.com/customer.html?seriesNumber=53728

6.50mm (.256") Pitch Wire-to-Board Header

53721
Vertical With Snap-Fit Pegs



Circuits	Order No.	Lead-free
2	53721-0270	Yes
4	53721-0470	
6	53721-0670	

Features and Benefits
- Sizes 2, 4 and 6 circuits
- Inner positive lock provides easy attachment and secure mating retention
- Stand-offs prevent flux wicking
- Snap-fit pegs for secure PCB retention
- Side walls protect PCB peg

Reference Information
Product Specification: PS-51142-003
Packaging: Tray
Mates With: 51142
Designed In: Millimeters

Electrical
Voltage: 600V max.
Current: 10.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Glass-filled Nylon, UL 94V-0
Contact: Copper Alloy
Plating: Tin over Nickel

www.molex.com/customer.html?seriesNumber=53721

Mini-Fit® General Overview

Mini-Fit Jr.™

The Mini-Fit Jr. was specifically developed for positive locking, wire-to-wire and wire-to-board applications. It is available in single row and dual row versions. The system offers the widest range of circuit sizes.

Mini-Fit BMI™

For blind-mating applications, the Mini-Fit BMI was introduced. The receptacle housing is self-aligning and will move up to 0.050" in the x and y axes, when properly installed in a panel. The system is suitable for panel-to-panel, panel-to-board or board-to-board applications. It features wave-solderable headers, reflow-solderable headers and press-fit headers.

Mini-Fit TPA™

This version of the Mini-Fit family was uniquely designed to assure that the terminals are fully seated in the receptacle and plug housings and cannot back out. The system is for positive locking, wire-to-wire and wire-to-board applications.

Mini-Fit Plus HCS™

The Mini-Fit Plus HCS was designed for high current applications as it is capable of handling current loads of as much as 12.0A. The gold-plated terminals and headers are hot-pluggable; i.e., ideal for applications that require hot mating and unmating of connectors. This is the most flexible Mini-Fit system since it is offered in Mini-Fit Jr, Mini-Fit BMI and Mini-Fit TPA design formats.

Mini-Fit Plus HMC™

The Mini-Fit Plus High Mating Cycle specializes in applications that require hundreds of mating cycles. It is also blind-mating. Solutions for panel-to-panel, panel-to-board and board-to-board applications exist.

Mini-Fit RTC™

Mini-Fit RTC, reflow temperature capable headers were designed for use in lead free processing environments. They are made from high temperature LCP and mate with standard Mini-Fit Jr. receptacles.

Mini-Fit H2O

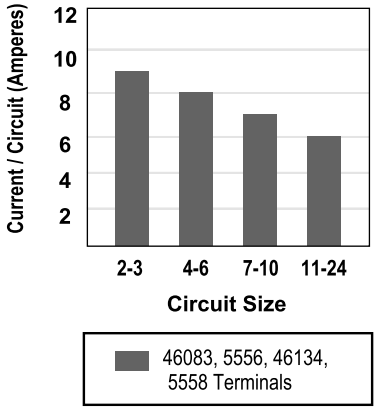
The Mini-Fit H2O is IP 67 rated for waterproof applications. The housings are made from a UV stable material making them suitable for outdoor applications. Mini-Fit H2O has integral seals that keep moisture and dust out. Seals are preinstalled by Molex to lower applied costs.

Family	Description	Current Rating (Smallest Circuit)	Current Rating (Largest Circuit)	Housing Lock	Configurations	Agency Approvals	Circuit Sizes	Wire Gauge	Flammability
Mini-Fit Plus HCS	Mini-Fit Plus HCS (High Current System) is capable of carrying up to 12A per circuit. The terminals fit in all Mini-Fit Jr, BMI, and TPA plugs and receptacles.	12A‡	11A‡	Positive or None	W-to-W W-to-B B-to-B	Pending	2, 3, 4, 5, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	16, 18-20	94V-0
Mini-Fit Plus HMC	Mini-Fit Plus HMC (High Mating Cycle) is capable of being mated and unmated hundreds of times and still able to provide reliable electrical connections. It is available only in the BMI format.	9A§	6A§	None	W-to-W W-to-B B-to-B	Pending	4, 6, 10, 14, 18, 24	16, 18-20, 22-24	94V-0
Mini-Fit Jr.	Mini-Fit Jr connectors are suitable for positive locking high current/high density applications.	9A†	6A†	Positive	W-to-W W-to-B	UL CSA TUV	2, 3, 4, 5, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24	16, 18-20, 22-24	94V-2, 94V-0
Mini-Fit TPA	Mini-Fit TPA (Terminal Position Assurance) connectors assure the terminals are fully seated in their housing and cannot back out for added reliability.	9A†	6A†	Positive	W-to-W W-to-B	UL CSA TUV	2, 4, 6, 8, 10, 12, 16	16, 18-20, 22-24	94V-0
Mini-Fit BMI	Mini-Fit BMI (Blindmate Interface) connectors are designed for applications that require blind-mating of PCBs, daughtercards, or subassemblies.	9A†	6A†	None	W-to-W W-to-B B-to-B	UL CSA TUV	4, 6, 10, 14,18, 24	16, 18-20, 22-24	94V-2, 94V-0
Mini-Fit BMI (SMC)	Mini-Fit BMI (SMC) are surface mount compatible headers suitable for high temperature reflow processes. They mate to the standard Mini-Fit BMI crimp receptacle or PCB receptacle to allow blind mating.	9A†	6A†	None	W-to-W W-to-B B-to-B	UL CSA TUV	4, 6, 10, 14, 18, 24	16, 18-20, 22-24	94V-0
Mini-Fit BMI (CPI)	Mini-Fit BMI (CPI) are press fit vertical headers suitable for high temperature reflow processes. They mate to the standard Mini-Fit BMI crimp receptacle or PCB receptacle to allow blind mating.	7A†	5A†	None	W-to-W W-to-B B-to-B	UL CSA TUV	4, 6, 10, 14, 18, 24	16, 18-20, 22-24	94V-0
Mini-Fit PCIe	Mini-Fit PCIe connectors feature a unique polarization scheme so they are suitable for PCI Express* high end graphic card applications only.	8A**	8A**	Positive	W-to-B	None	6	16, 18-24, 22-28	94V-0
Mini-Fit RTC	Mini-Fit RTC headers can withstand high temperature solder processes. Compatible with lead free solder processes.	12.0A	11.0A	Positive	W-to-B	Pending	4, 6, 8, 10,12, 24	16, 18-20, 22-24	94V-0
Mini-Fit H2O	Mini-Fit H2O is IP 67 rated for weatherproof, waterproof applications.	9.0A	9.0A	Positive	W-to-W	Pending	2	18-20	94V-0

†Mini-Fit Plus Crimp Terminals: 46083 (Female) and 46134 (Male)
‡Mini-Fit Plus HCS Crimp Terminals: 45750 (Female) and 46012 (Male)
§Mini-Fit High Cycle Crimp Terminals: 46018 (Female) and 46098 (Male)
**Mini-Fit Crimp Terminals: 5556 (Female)

*Note: PCI Express is a registered trademark of the Peripheral Component Interchange Special Interest Group (PCI-SIG).

4.20mm (.165") Pitch Mini-Fit Jr™ Connector System

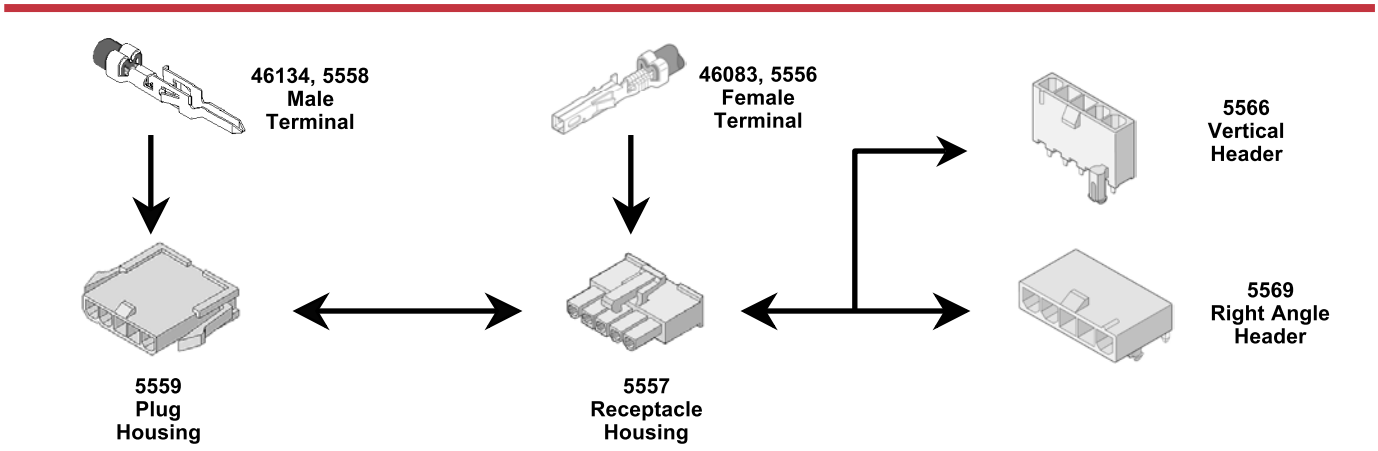


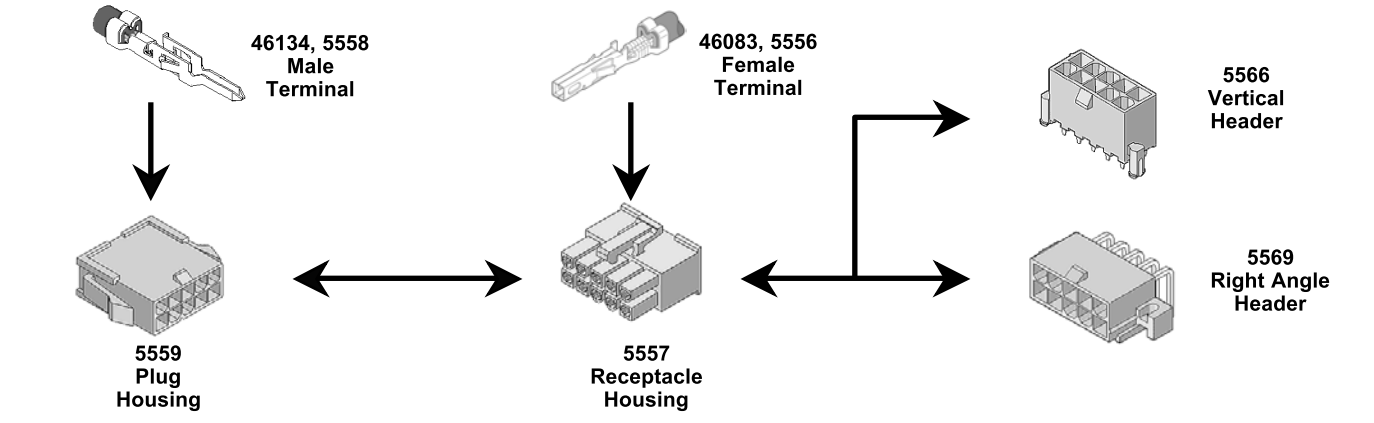
Features

- **Positive Locking**
  Receptacle housing is equipped with a locking thumb latch. Each plug housing or header features a locking ramp. When mated, the latch and ramp prevent the connectors from accidental unmating.
- **Configurations**
  The receptacle housings, plug housings and headers allow designs for wire-to-wire or wire-to-board applications.
- **Polarized Mating Geometry**
  The receptacle housings and PCB receptacles are polarized with the plug housings and headers to minimize the chance of mismating the connectors.
- **Polarizing Pegs**
  Optional polarizing pegs orient the headers on the PCB so they are not inserted backwards and then hold the headers to the PCB during the wave soldering process.
- **Lead-free**
  Mini-Fit Jr connectors are lead-free.
- **MFBL**
  Molex offers make first, break last header options

Specifications

Current Rating: 9.0A max. (16 AWG wire)
Voltage Rating: 600V
Contact Resistance:
10 milliohms max. (initial)
Wire Range:
16 AWG
18 to 20 AWG
22 to 24 AWG
Plating Options: Tin or Select Gold
Housing Material: 6/6 nylon, UL 94V-2 or UL 94V-0
Agency Approvals: UL, CSA, TUV

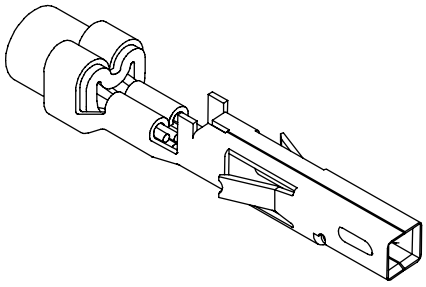




4.20mm (.165") Pitch Mini-Fit Plus™ Terminal

46083

Crimp, Female



Features and Benefits

- Post-plated contacts for superior electrical performance over time
- Reliable elongated dimple which provides full and consistent engagement between female box terminal and male pin

Reference Information

Product Specification: PS-46083-001
Application Specifications: ATS-639002600
ATS-639002800
UL File No: E29179
CSA File No: LR19980
TUV License No: R75142
Use With: 5557, 30067, 42474 and 44516 receptacles

Electrical

Current: 10.0 max. (See applicable product specification.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

Mechanical

Mating Force: 14.7N max. per contact
Unmating Force: 1.0N min. per contact
Normal Force: 0.49N min. per contact
Mating Cycles: Tin—30 cycles
Gold—100 cycles

Physical

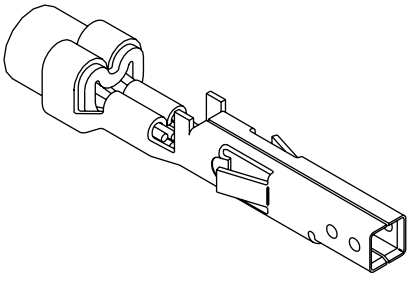
Contact Material: Brass or Phosphor Bronze
Wire Size: 16-24 AWG (See Product and Application Tooling specifications for complete crimping guidelines.)

Base Material	Plating	Wire Range AWG	Reel	Bag	Lead-free
Brass	Tin	16	46083-3111	46083-3112	Yes
		18-20	46083-1111	46083-1112	
		22-24	46083-2111	46083-2112	
	30µ" Select Gold	16	46083-3211	46083-3212	
		18-20	46083-1211	46083-1212	
		22-24	46083-2211	46083-2212	
Phosphor Bronze	Tin	16	46083-3121	46083-3122	
		18-20	46083-1121	46083-1122	
		22-24	46083-2121	46083-2122	
	30µ" Select Gold	16	46083-3221	46083-3222	
		18-20	46083-1221	46083-1222	
		22-24	46083-2221	46083-2222	

4.20mm (.165") Pitch Mini-Fit® Family Terminal

5556

Crimp, Female



Features and Benefits

- Four gas-tight points of contact

Reference Information

Product Specification: PS-5556-001
Application Specifications: ATS-639002600
ATS-639002800
UL File No: E29179
CSA File No: LR19980
TUV License No: R75142
Use With: 5557, 30067, 42474 and 44516 receptacles

Electrical

Current: 9.0 max. (See applicable product specification.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

Mechanical

Mating Force: 14.7N max. per contact
Unmating Force: 1.0N min. per contact
Normal Force: 0.49N min. per contact
Mating Cycles: 30 cycles

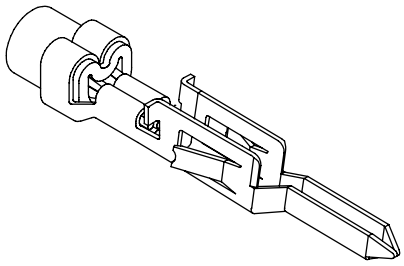
Physical

Contact Material: Brass or Phosphor Bronze
Wire Size: 16-24 AWG (See Product and Application Tooling specifications for complete crimping guidelines.)

Contact Material	Wire Size (AWG)	Plating	Order No. 5556		Lead-free
			Reel	Bag	
Brass	16	Tin	39-00-0077	39-00-0078	Yes
	18-24		39-00-0038	39-00-0039	
Phosphor Bronze	16		39-00-0079	39-00-0080	
	18-24		39-00-0059	39-00-0060	

4.20mm (.165") Pitch Mini-Fit Plus™ Terminal

46134
Crimp, Male



Features and Benefits
- Post-plated contacts for superior electrical performance over time
- Locking tangs assure high contact retention to the housing

Reference Information
Product Specification: PS-46083-001
Application Specifications: ATS-639002600
ATS-639002800
UL File No: E29179
CSA File No: LR19980
TUV License No: R75142
Use With: 5559, 42475 and 30068 plug housings

Electrical
Current: 10.0A max. (See applicable product specification.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

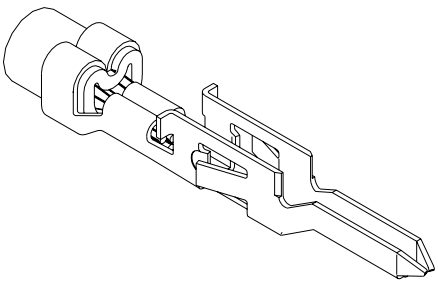
Mechanical
Mating Force: 14.7N max. per contact
Unmating Force: 1.0N max. per contact
Normal Force: 0.49N min. per contact
Mating Cycles: Tin—30 cycles
Gold—100 cycles

Physical
Contact Material: Brass or Phosphor Bronze
Wire Size: 16-24 AWG (See Product and Application Tooling specifications for complete crimping guidelines.)

Base Materterial	Plating	Wire Range AWG	Reel	Bag	Lead-free
Brass	Tin	16	46134-3111	46134-3112	Yes
		18-20	46134-1111	46134-1112	
		22-24	46134-2111	46134-2112	
	30µ" Select Gold	16	46134-3211	46134-3212	
		18-20	46134-1211	46134-1212	
		22-24	46134-2211	46134-2212	
Phosphor Bronze	Tin	16	46134-3121	46134-3122	
		18-20	46134-1121	46134-1122	
		22-24	46134-2121	46134-2122	
	30µ" Select Gold	16	46134-3221	46134-3222	
		18-20	46134-1221	46134-1222	
		22-24	46134-2221	46134-2222	

4.20mm (.165") Pitch Mini-Fit® Family Terminal

5558
Crimp, Male



Features and Benefits
- Crimp terminal for use in all Mini-Fit, Jr., BMI and TPA plug housings

Reference Information
Product Specification: PS-5556-001
Application Specifications: ATS-639002600
ATS-639002800
UL File No: E29179
CSA File No: LR19980
TUV License No: R75142
Use With: 5559, 42475 and 30068 plug housings

Electrical
Voltage: 600V
Current: 9.0A max.
Contact Resistance: 10 milliohms max.

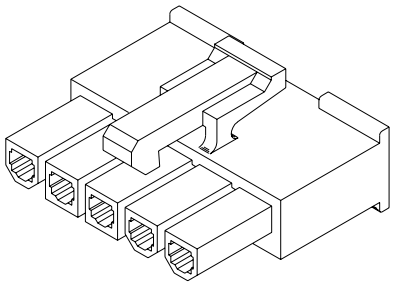
Mechanical
Mating Force: 14.7N max. per contact
Unmating Force: 1.0N max. per contact
Normal Force: 0.49N min. per contact
Mating Cycles: 30 cycles

Physical
Contact Material: Brass or Phosphor Bronze (See applicable product specification.)
Wire Size: 16-24 AWG (See Product and Application Tooling specifications for complete crimping guidelines.)

Contact Material	Wire Size (AWG)	Plating	Order No.		Lead-free
			Reel	Bag	
Brass	16	Tin	39-00-0081	39-00-0082	Yes
	18-24		39-00-0040	39-00-0041	
Phosphor Bronze	16		39-00-0083	39-00-0084	
	18-24		39-00-0061	39-00-0062	

4.20mm (.165") Pitch Mini-Fit Jr.™ Crimp Terminal Receptacle

5557
Single Row



Features and Benefits
- Low profile design to accommodate height constraints
- Fully isolated terminals to protect contacts from damage
- For wire-to-wire or wire-to-board applications

Reference Information
Product Specification: PS-5556-001
UL File No: E29179
CSA File No: LR19980
TUV License No: R75142
Mates With: 5559, 5566 and 5569 single row connectors
Use With: 5556, 46083 or 45750 terminals

Electrical
See Crimp Terminal page.

Mechanical
Locking: Positive

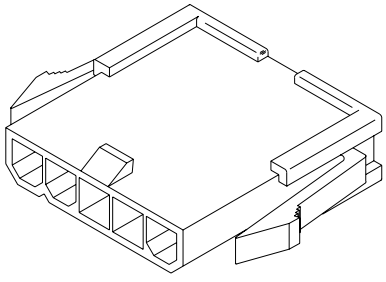
Physical
Housing: 6/6 nylon, UL 94V-2 or 94V-0

Circuits	Order No.	
	94V-2	94V-0
3*	39-01-4030	39-01-4031
4	39-01-4040	39-01-4041
5	39-01-4050	39-01-4051

*3-circuit receptacle designed for first-mate/last-break applications

4.20mm (.165") Pitch Mini-Fit Jr.™ Crimp Terminal Housing Plug

5559
Single Row, with and Without Panel Mount Ears



Features and Benefits
- Wire-to-wire plug for panel-mounted or free-hanging applications
- Available with and without panel mounting ears
- Positive housing locks to mate with Mini-Fit Jr. receptacle
- Fully isolated terminals to protect contacts from damage

Reference Information
Product Specification: PS-5556-001
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75142
Mates With: 5557 single row receptacles
Use With: 5558, 30490, 46134 or 46012 terminals
Panel Thickness: .079 to 2.00mm (.031 to 0.80")

Electrical
See Crimp Terminal page.

Mechanical
Locking: Positive

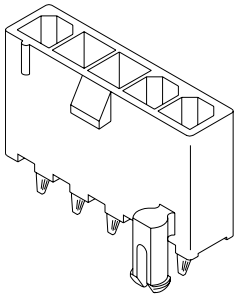
Physical
Housing: 6/6 nylon, UL 94V-2 or 94V-0

Circuits	Order No.			
	Panel Mount		Free Hanging	
	94V-2	94V-0	94V-2	94V-0
3*	39-01-4032	39-01-4033	39-01-4036	39-01-4037
4			39-01-4046	39-01-4047
5	39-01-4052	39-01-4053	39-01-4056	39-01-4057

*3-circuit plug designed for first-mate/last-break applications

4.20mm (.165") Pitch Mini-Fit Jr.™ Header

5566
Vertical, Single Row With Pegs



Features and Benefits
- Positive housing locks to mate with Mini-Fit Jr. single row receptacle
- Fully isolated terminals to protect contacts from damage
- Peg-mounted vertical headers for increased board retention
- Drain holes are standard to allow washing of PCB after processing (contact Molex for headers without drain holes)

Reference Information
Product Specification: PS-5556-001
UL File No: E29179
CSA File No: LR19980
TUV License No: R75142
Mates With: 5557 Single row receptacles
Use With: 5556 and 46083 terminals

Electrical
Current: 9.0A max. (See applicable product specification.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

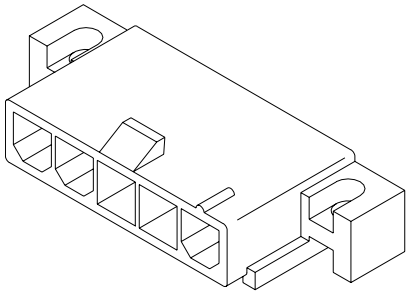
Mechanical
Mating Cycles: 30 cycles

Physical
Housing: 6/6 nylon, UL 94V-2 or 94V-0
Contact Material: Brass

Circuits	Order No.				Tail Length	Lead-free
	Tin Plated		Select Gold Plated (30µ")			
	94V-2	94V-0	94V-2	94V-0		
3	39-30-5039	39-30-6030	39-30-2037	39-30-2038	3.5mm (0.14")	Yes
4	39-30-5049	50-30-4466	39-30-2047	39-30-2048		
5		50-30-4467		39-30-2058		

4.20mm (.165") Pitch Mini-Fit Jr.™ Header

5569
Right Angle, Single Row With Flanges



Features and Benefits
- Flanges allow for screw-in retention to board-mounted headers
- Low profile is ideal for power applications with space constraints

Reference Information
Product Specification: PS-5556-001
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75142
Mates With: 5557 single row receptacle
Use With: 5556, 46083 and 45750 terminals

Electrical
Current: 12.0A max. (See applicable product specification.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

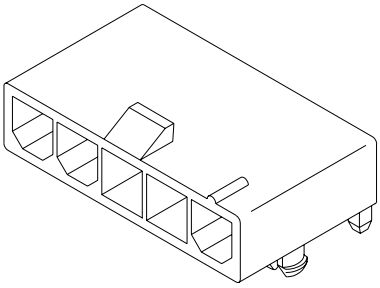
Mechanical
Mating cycles: 30 cycles

Physical
Housing: 6/6 nylon, UL 94V-2 or 94V-0
Contact Material: Brass

Circuits	Order No.				Tail Length	Lead-free
	Tin Plated		Select Gold Plated			
	94V-2	94V-0	94V-2	94V-0		
3	39-30-6039	39-30-7030	39-30-4037	39-30-4038	3.6mm	Yes
4	39-30-6049		50-30-4443			

4.20mm (.165") Pitch Mini-Fit Jr.™ Header

5569
Right Angle, Single Row With Pegs



Features and Benefits
- Pegs provide increased board retention
- Ideal for low profile power applications
- Positive housing locks to mate with Mini-Fit Jr. single row receptacles
- Fully isolated terminals to protect contacts from damage

Reference Information
Product Specification: PS-5556-001
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75142
Mates With: 5557 single row receptacles
Use With: 5556, 46083 and 45750 terminals

Electrical
Current: 12.0A max. (See applicable product specificaton.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

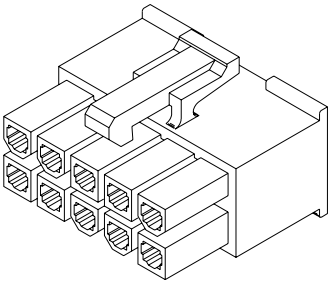
Mechanical
Mating cycles: 30 cycles

Physical
Housing: 6/6 nylon, UL 94V-2 or 94V-0
Contact Material: Brass

Circuits	Order No.				Tail Length	Lead-free
	Tin Plated		Select Gold Plated			
	94V-2	94V-0	94V-2	94V-0		
3	39-30-7031	39-30-7032	39-30-4031	39-30-4032	3.6mm	Yes
4	39-30-7041	39-30-7042	50-30-4438	50-30-4441		
5	39-30-7051	39-30-7052	50-30-4439	50-30-4442		

4.20mm (.165") Pitch Mini-Fit Jr.™ Crimp Terminal Housing Receptacle

5557
Dual Row



Features and Benefits
- Positive housing lock for secure mating retention
- Fully isolated terminals to protect contacts from damage
- Thumblatch for easy unmating

Reference Information
Product Specification: PS-5556-001
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75142
Mates With: 5559, 5566, 5569, 42404, 42440, 42475, 43810, 43879 and 44068 dual row connectors
Use With: 5556, 46083 or 45750 terminals

Electrical
See Crimp Terminal page.

Mechanical
Locking: Positive

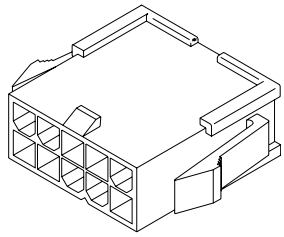
Physical
Housing: 6/6 nylon, UL 94V-2 or 94V-0

Circuits	Order No.	
	94V-2	94V-0
2	39-01-2020	39-01-2025
4	39-01-2040	39-01-2045
6	39-01-2060	39-01-2065
8	39-01-2080	39-01-2085
10	39-01-2100	39-01-2105
12	39-01-2120	39-01-2125

Circuits	Order No.	
	94V-2	94V-0
14	39-01-2140	39-01-2145
16	39-01-2160	39-01-2165
18	39-01-2180	39-01-2185
20	39-01-2200	39-01-2205
22	39-01-2220	39-01-2225
24	39-01-2240	39-01-2245

4.20mm (.165") Pitch Mini-Fit Jr.™ Crimp Terminal Housing Plug

5559
Dual Row
With and without Panel Mount Ears



Features and Benefits
- Wire-to-wire plug for panel-mounted or free-hanging applications
- Positive housing locks to mate with Mini-Fit Jr. receptacle
- Fully isolated terminals to protect contacts from damage

Reference Information
Product Specification: PS-5556-001
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75142
Mates With: 5557 dual row receptacle
Use With: 5558, 30490, 46134 or 46012 terminals
Panel Thickness: .079 to 2.00mm (.031 to 0.80")

Electrical
See Crimp Terminal page.

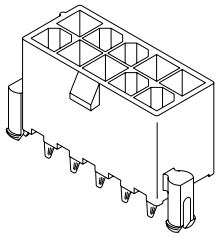
Mechanical
Locking: Positive

Physical
Housing: 6/6 nylon, UL 94V-2 or 94V-0

Circuits	Order No.			
	Panel Mount		Free Hanging	
	94V-2	94V-0	94V-2	94V-0
2	39-01-2021	39-01-2026	39-01-3023	39-01-3029
4	39-01-2041	39-01-2046	39-01-3043	39-01-3049
6	39-01-2061	39-01-2066	39-01-3063	39-01-3069
8	39-01-2081	39-01-2086	39-01-3083	39-01-3089
10	39-01-2101	39-01-2106	39-01-3103	39-01-3109
12	39-01-2121	39-01-2126	39-01-3123	39-01-3129
14	39-01-2141	39-01-2146	39-01-3143	39-01-3149
16	39-01-2161	39-01-2166	39-01-3163	39-01-3169
18	39-01-2181		39-01-3183	
20	39-01-2201			
22	39-01-2221			
24	39-01-2241	39-01-2246		

4.20mm (.165") Pitch Mini-Fit Jr.™ Header

5566
Vertical, Dual Row
With Pegs, with Drain Holes



Features and Benefits
- Board-mounting pegs provide polarization during placement on the PCB and increased retention during soldering process
- Positive housing locks to mate with Mini-Fit Jr. receptacle
- Fully isolated terminals to protect contacts from damage
- Drain holes are standard to allow washing of PCB after processing (contact Molex for headers without drain holes)

Reference Information
Product Specification: PS-5556-001
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75142
Mates With: 5557 dual row receptacle
Use With: 5556 and 46083 terminals

Electrical
Current: 19.0A max. (See applicable product specification.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

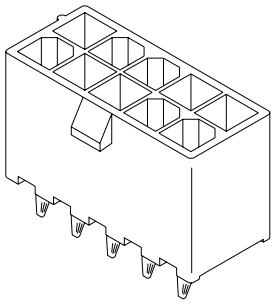
Mechanical
Mating Cycles: 30 cycles

Physical
Housing: 6/6 nylon, UL 94V-2 or 94V-0
Contact Material: Brass

Circuits	Order No.				Tail Length	Lead-free
	Tin Plated		Gold Plated (30µ")			
	94V-2	94V-0	94V-2	94V-0		
2	39-30-6027	39-30-6028	39-29-9024	39-28-9028	3.5mm	Yes
4	39-30-6047	39-30-6048	39-29-9044	39-28-9048		
6	39-30-6067	39-30-6068	39-29-9064	39-28-9068		
8	39-30-6087	39-30-6088	39-29-9084	39-28-9088		
10	39-30-6107	39-30-6108	39-29-9104	39-28-9108		
12	39-30-6127	39-30-6128	39-29-9124	39-28-9128		
14	39-30-6147	39-30-6148	39-29-9144	39-28-9148		
16	39-30-6167	39-30-6168	39-29-9164	39-28-9168		
18	39-30-6187	39-30-6188	39-29-9184	39-28-9188		
20	39-30-6207	39-30-6208	39-29-9204	39-28-9208		
22	39-30-6227	39-30-6228	39-29-9224			
24	39-30-6247	39-30-6248	39-29-9244	39-28-9248		

4.20mm (.165") Pitch Mini-Fit Jr.™ Header

5566
Vertical, Dual Row Without Pegs, without Drain Holes



Features and Benefits
- Positive housing locks to mate with Mini-Fit Jr. receptacle
- Fully isolated terminals to protect contacts from damage
- Drain hole option available, contact Molex

Reference Information
Product Specification: PS-5556-001
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75142
Mates With: 5557 dual row receptacle
Use With: 5556 and 46083 terminals

Electrical
Current: 19.0A max. (See applicable product specification.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

Mechanical
Mating Cycles: 30 cycles

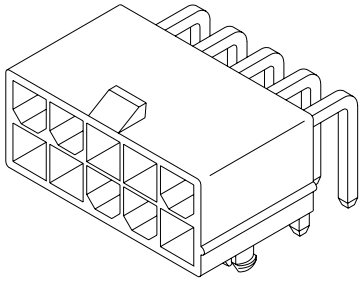
Physical
Housing: 6/6 nylon, UL 94V-2 or 94V-0
Contact Material: Brass

Circuits	Order No.		Plating	Tail Length	Lead-free
	94V-2	94V-0			
2	39-28-1023	39-28-8020	Tin	3.5mm	Yes
4	39-28-1043	39-28-8040			
6	39-28-1063	39-28-8060			
8	39-28-1083	39-28-8080			
10	39-28-1103	39-28-8100			
12	39-28-1123	39-28-8120			

Circuits	Order No.		Plating	Tail Length	Lead-free
	94V-2	94V-0			
14	39-28-1143	39-28-8140	Tin	3.5mm	Yes
16	39-28-1163	39-28-8160			
18	39-28-1183	39-28-8180			
20	39-28-1203	39-28-8200			
22	39-28-1223	39-28-8220			
24	39-28-1243	39-28-8240			

4.20mm (.165") Pitch Mini-Fit Jr.™ Header

5569
Right Angle, Dual Row with Pegs



Features and Benefits
- Board mounting pegs provide polarization during placement on PCB and increased board retention during solder processing
- Low profile for space constraints
- Positive housing locks
- Fully isolated terminals to protect contacts from damage

Reference Information
Product Specification: PS-5556-001
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75142
Mates With: 5557 dual row receptacles
Use With: 5556, 46083 and 45750 terminals

Electrical
Current: 12.0A max. (See applicable product specification.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

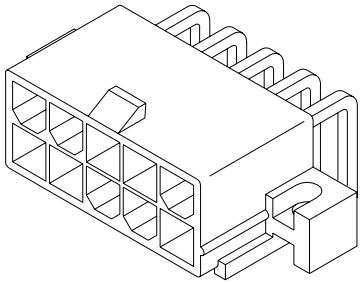
Mechanical
Mating Cycles: 30 cycles

Physical
Housing: 6/6 nylon, UL 94V-2 or 94V-0
Contact Material: Brass

Circuits	Order No.				Tail Length	Lead-free
	Tin Plated		Select Gold Plated (30µ")			
	94V-2	94V-0	94V-2	94V-0		
2	39-30-7025	39-30-7026	39-30-0023	39-30-0024	3.6mm	Yes
4	39-30-7045	39-30-7046	39-30-0043	39-30-0044		
6	39-30-7065	39-30-7066	39-30-0063	39-30-0064		
8	39-30-7085	39-30-7086	39-30-0083	39-30-0084		
10	39-30-7105	39-30-7106	39-30-0103	39-30-0104		
12	39-30-7125	39-30-7126	39-30-0123	39-30-0124		
14	39-30-7145	39-30-7146	39-30-0143	39-30-0144		
16	39-30-7165	39-30-7166	39-30-0163	39-30-0164		
18	39-30-7185		39-30-0183			
20	39-30-7205	39-30-7206	39-30-0203	39-30-0204		
22	39-30-7225					
24	39-30-7245	39-30-7246	39-30-0243	39-30-0244		

4.20mm (.165") Pitch Mini-Fit Jr.™ Header

5569
Right Angle, Dual Row With Flanges



Features and Benefits
- Flanges allow for screw-in retention to board-mounted header
- Low profile for space constraints
- Positive housing locks

Reference Information
Product Specification: PS-5556-001
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75142
Mates With: 5557 dual row receptacles
Use With: 5556, 46083 and 45750 terminals

Electrical
Current: 12.0A max. (See applicable product specification.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

Mechanical
Mating Cycles: 30 cycles

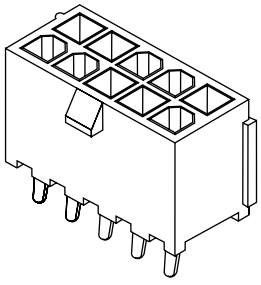
Physical
Housing: 6/6 nylon, UL 94V-2 or 94V-0
Contact Material: Brass

Circuits	Order No.		Plating	Tail Length	Lead-free
	94V-2	94V-0			
2	39-29-1028	39-29-1027	Tin	3.5mm	Yes
4	39-29-1048	39-29-1047			
6	39-29-1068	39-29-1067			
8	39-29-1088	39-29-1087			
10	39-29-1108	39-29-1107			
12	39-29-1128	39-29-1127			

Circuits	Order No.		Plating	Tail Length	Lead-free
	94V-2	94V-0			
14	39-29-1148	39-29-1147	Tin	3.5mm	Yes
16	39-29-1168	39-29-1167			
18	39-29-1188	39-29-1187			
20	39-29-1208	39-29-1207			
22	39-29-1228	39-29-1227			
24	39-29-1248	39-29-1247			

4.20mm (.165") Pitch Mini-Fit Jr.™ Wire-to-Board Header

87427
Vertical without Flanges High Temperature Material



Features and Benefits
- Molded in high temperature, surface mount compatible material
- Fully isolated terminals to protect contacts from damage

Reference Information
Product Specification: PS-87427-0001
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5557 dual row receptacles
Use With: 5556, 46083 and 45750 terminals

Electrical
Current: 12.0A max. (See applicable product specification.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

Mechanical
Mating Cycles: 30 cycles

Physical
Housing: 4/6 Nylon, UL 94V-0
Contact Material: Brass

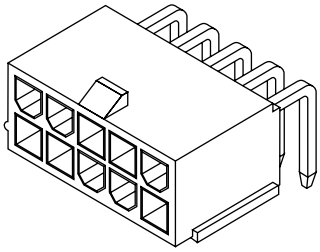
Circuits	Order No.		Tail Length	Lead-free
	Tin Over Nickel Plating	Tin Over Copper Plating		
2	87427-0242	87427-0243	3.3mm	Yes
4	87427-0442	87427-0443		
6	87427-0642	87427-0643		
8	87427-0842	87427-0843		
10	87427-1042	87427-1043		
12	87427-1242	87427-1243		

Circuits	Order No.		Tail Length	Lead-free
	Tin Over Nickel Plating	Tin Over Copper Plating		
14	87427-1442	87427-1443	3.3mm	Yes
16	87427-1642	87427-1643		
18	87427-1842	87427-1843		
20	87427-2042	87427-2043		
22	87427-2242	87427-2243		
24	87427-2442	87427-2443		

4.20mm (.165") Pitch Mini-Fit Jr.™ Wire-to-Board Header

87427

Right Angle without Flanges High Temperature Material



Features and Benefits

- Molded in high temperature, surface mount compatible material
- Fully isolated terminals to protect contacts from damage

Reference Information

Product Specification: PS-87427-0001
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5557 dual row receptacle
Use With: 5556, 46083 and 45750 terminals

Electrical

Current: 12.0A max. (See applicable product specification.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

Mechanical

Mating Cycles: 30 cycles

Physical

Housing: Nylon 4/6, UL 94V-0
Contact Material: Brass

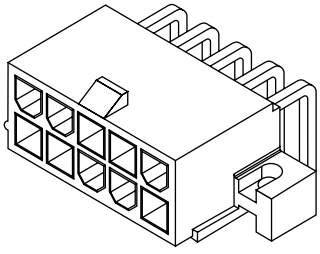
Circuits	Order No.		Tail Length	Lead-free
	Tin Over Nickel Plating	Tin Over Copper Plating		
2	87427-0202	87427-0203	3.3mm	Yes
4	87427-0402	87427-0403		
6	87427-0602	87427-0603		
8	87427-0802	87427-0803		
10	87427-1002	87427-1003		
12	87427-1202	87427-1203		

Circuits	Order No.		Tail Length	Lead-free
	Tin Over Nickel Plating	Tin Over Copper Plating		
14	87427-1402	87427-1403	3.3mm	Yes
16	87427-1602	87427-1603		
18	87427-1802	87427-1803		
20	87427-2002	87427-2003		
22	87427-2202	87427-2203		
24	87427-2402	87427-2403		

4.20mm (.165") Pitch Mini-Fit Jr.™ Wire-to-Board Header

87427

Right Angle with Flange High Temperature Material



Features and Benefits

- Molded in high temperature, surface mount compatible material
- Fully isolated terminals to protect contacts from damage

Reference Information

Product Specification: PS-87427-0001
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5557 dual row receptacle
Use With: 5556, 46083 and 45750 terminals

Electrical

Current: 12.0A max. (See applicable product specification.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

Mechanical

Mating Cycles: 30 cycles

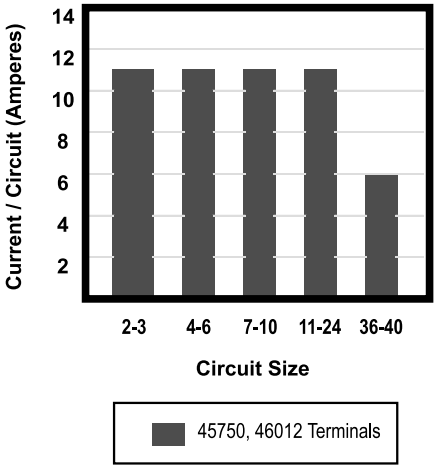
Physical

Housing: 4/6 Nylon, UL 94V-0
Contact Material: Brass

Circuits	Order No.		Tail Length	Lead-free
	Tin Over Nickel Plating	Tin Over Copper Plating		
2	87427-0212	87427-0213	3.3mm	Yes
4	87427-0412	87427-0413		
6	87427-0612	87427-0613		
8	87427-0812	87427-0813		
10	87427-1012	87427-1013		
12	87427-1212	87427-1213		

Circuits	Order No.		Tail Length	Lead-free
	Tin Over Nickel Plating	Tin Over Copper Plating		
14	87427-1412	87427-1413	3.3mm	Yes
16	87427-1612	87427-1613		
18	87427-1812	87427-1813		
20	87427-2012	87427-2013		
22	87427-2212	87427-2213		
24	87427-2412	87427-2413		

4.20mm (.165") Pitch Mini-Fit Plus HCS™ Connector System

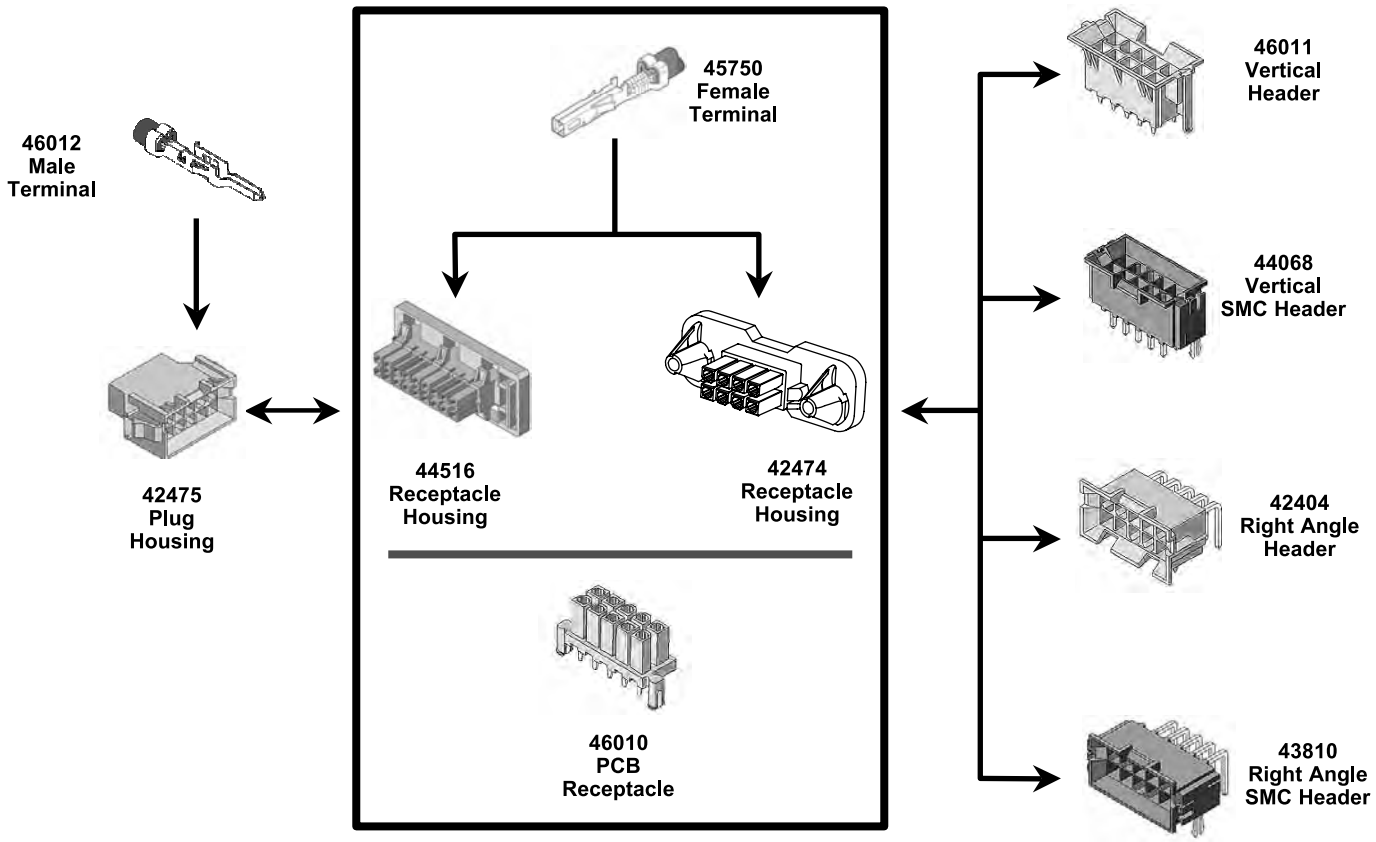


Features

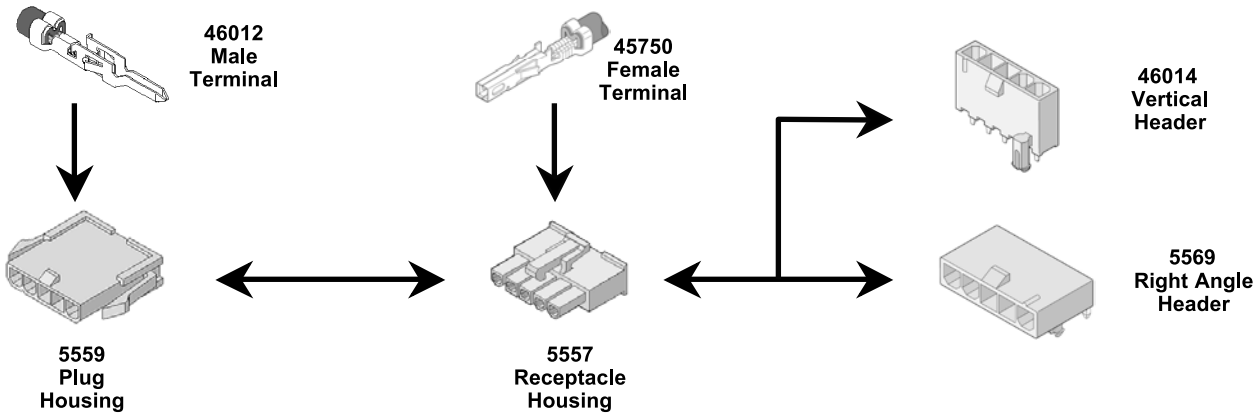
- **High Current**
  The base material of the terminals and stamped pins is a highly-conductive copper alloy. Heat generated at the contact interface is quickly dissipated. The system is suitable for applications that require high current loads.
- **Hot Pluggable**
  The gold-plated terminals, PCB receptacle and headers are ideal for applications that require repeated "hot " mates and unmates.
- **Flexible Design**
  Blind-mating, Positive Locking and Terminal Position Assurance solutions are available in the high current format.
- **Configurations**
  Receptacle housings, PCB receptacles, plugs housings and headers in different combinations enable wire-to-wire, wire-to-board, panel-to-panel, panel-to-board or board-to-board designs.
- **Polarized Geometry**
  The receptacle housings and PCB receptacles are polarized to the plug housings and headers to minimize the chance of mismating the connectors.
- **Lead-free**
  All Mini-Fit Plus HCS connectors have been lead-free since inception.

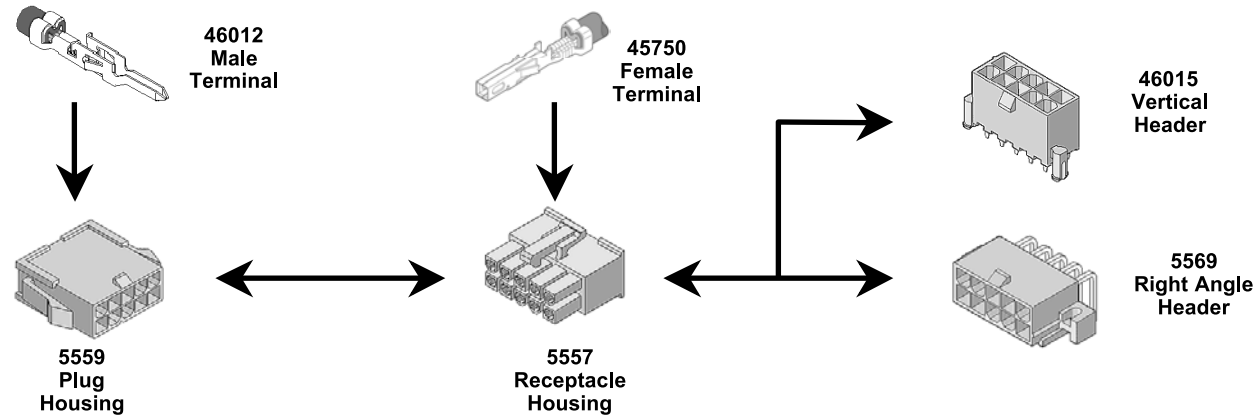
Specifications

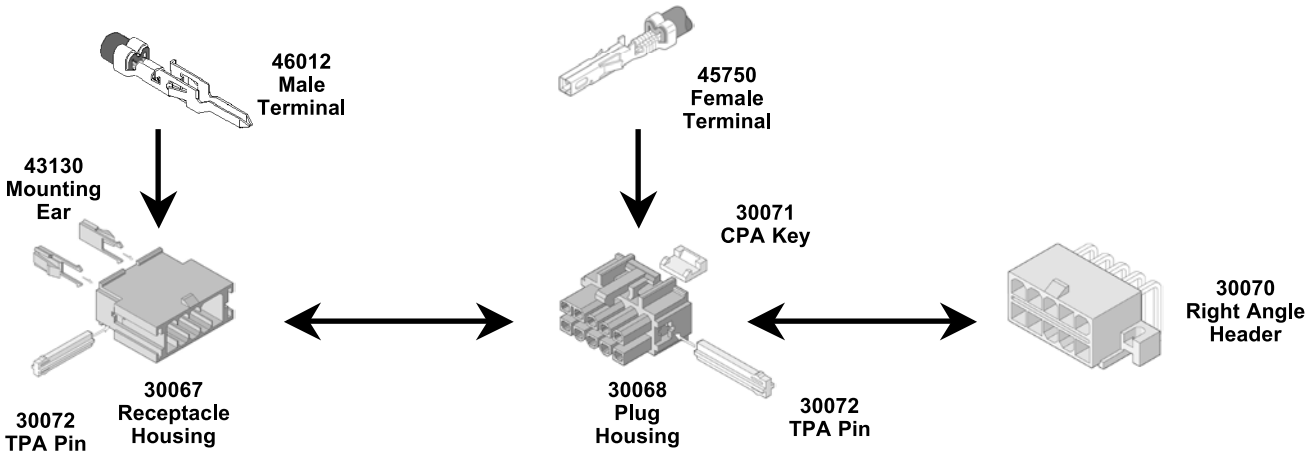
Current Rating: 12.0A max. (16 AWG wire)
Voltage Rating: 600V
Contact Resistance:
10 milliohms max. (initial)
20 milliohms max. (after environmental testing)
Wire Range:
16 AWG (2.20 to 3.15mm insulation OD)
18 to 20 AWG (1.65 to 2.95mm insulation OD)
Plating Options: Tin, Select Gold
Current Interruption (Hot Pluggability): 8.0A max., 24V max., 50 mating cycles max. (Gold-plated only)
Applicable PCB Solder Processes:
Wave Solder—42440, 42404, 42385, 43644, 43810, 43973, 44068, 45567 and 46011
Reflow—44068, 43810



4.20mm (.165") Pitch Mini-Fit Plus HCS™ Connector System

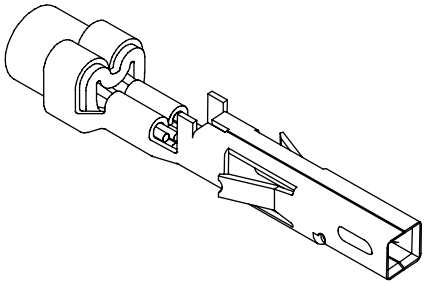






4.20mm (.165") Pitch Mini-Fit Plus HCS™ Crimp Terminal

45750
Female



Features and Benefits
- Post-plated contacts for superior electrical performance over time
- Suitable for high current applications
- Locking tangs secure terminal to housing

Reference Information
Product Specification: PS-45250
Application Specification:
Mates With: 46012, 46104, 46015, 46011
Use With: 5557, 42474, 44516 and 30067 housings

Electrical
Voltage: 600V
Current: 12.0A max. (See applicable product specification.)
Contact Resistance: 10 milliohms max.

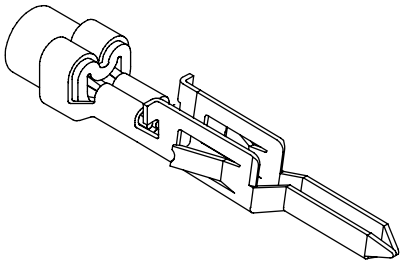
Mechanical
Mating Force: 14.7N max.
Unmating Force: 1.0N min.
Normal Force: 200g min.
Mating Cycles: Tin—30 cycles
Gold—100 cycles

Physical
Contact: Copper Alloy

Plating	Wire Range AWG	Reel	Bag	Lead-free
Tin	16	45750-3111	45750-3112	Yes
	18-20	45750-1111	45750-1112	
30µ" Select Gold	16	45750-3211	45750-3212	
	18-20	45750-1211	45750-1212	

4.20mm (.165") Pitch Mini-Fit Plus HCS™ Crimp Terminal

46012
Male



Features and Benefits
- Post-plated contacts for superior electrical performance over time
- Suitable for high current applications
- Locking tangs secure terminal to housing

Reference Information
Product Specification: PS-45750
Application Specification:
Mates With: 45750 and 46010
Use With: 5559, 42475 and 30068 housings

Electrical
Voltage: 600V
Current: 12.0A (See applicable product specification.)
Contact Resistance: 10 milliohms max.

Mechanical
Mating Force: 14.7N max.
Unmating Force: 1.0N max.
Mating Cycles: Tin—30 cycles
Gold—100 cycles

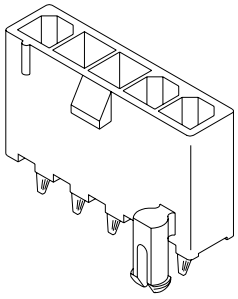
Physical
Contact: Copper Alloy
Plating: Tin or Select Gold
Wire Size: 16-20 AWG (See Product and Application Tooling specifications for complete crimping guidelines.)

Plating	Wire Range AWG	Reel	Bag	Lead-free
Tin	16	46012-3141	46012-3142	Yes
	18-20	46012-1141	46012-1142	
30µ" Select Gold	16	46012-3241	46012-3242	
	18-20	46012-1241	46012-1242	

4.20mm (.165") Pitch Mini-Fit Plus HCS™ Header

46014

Single Row, Vertical With Pegs and Drain Holes



Features and Benefits

- Carries more amperes per circuit than 5566 series headers
- Headers standard with mounting pegs for increased board retention
- Single row configuration saves board space

Reference Information

Product Specification: PS-45750
Mates With: 5557 single row receptacle housing using 45750 terminal

Electrical

Voltage: 600V
Current: 12.0A max. (See applicable product specification.)
Contact Resistance: 10 milliohms max.

Mechanical

Mating Cycles: Tin—30 cycles
Gold—100 cycles

Physical

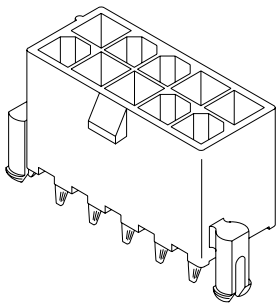
Housing: 6/6 nylon, UL 94V-0
Contact: High Copper Alloy
Plating: Tin or Select Gold

Circuits	Order No.		Tail Length	Lead-free
	Tin	30µ" Select Gold		
3	46014-0300	46014-0302	3.5mm (.14")	Yes
4	46014-0400	46014-0402		
5	46014-0500	46014-0502		

4.20mm (.165") Pitch Mini-Fit Plus HCS™ Header

46015

Dual Row, Vertical With Pegs, Without Drain Holes



Features and Benefits

- Carries more amperes per circuit than 5566 series headers
- Headers standard with mounting pegs for increased board retention
- Positive housing locks

Reference Information

Product Specification: PS-45750
Mates With: 5557 housings using 45750 terminal

Electrical

Voltage: 600V
Current: 12.0A max. (See applicable product specification.)
Contact Resistance: 10 milliohms max.

Mechanical

Mating Cycles: Tin—30 cycles
Gold—100 cycles

Physical

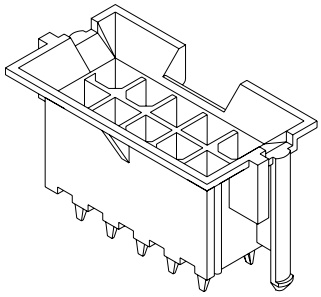
Housing: 6/6 nylon, UL 94V-0
Contact: High Copper Alloy
Plating: Tin or Select Gold

Circuits	Order No.		Tail Length	Lead-free
	Tin	30µ" Select Gold		
2	46015-0201	46015-0208	3.5mm (.14")	Yes
4	46015-0401	46015-0408		
6	46015-0601	46015-0608		
8	46015-0801	46015-0808		
10	46015-1001	46015-1008		
12	46015-1201	46015-1208		

Circuits	Order No.		Tail Length	Lead-free
	Tin	30µ" Select Gold		
14	46015-1401	46015-1408	3.5mm (.14")	Yes
16	46015-1601	46015-1608		
18	46015-1801	46015-1808		
20	46015-2001	46015-2008		
22	46015-2201	46015-2208		
24	46015-2401	46015-2408		

4.20mm (.165") Pitch Mini-Fit Plus HCS™ Header

46011
Dual Row, Vertical With Pegs and Drain Holes



Features and Benefits
- Carries more amperes per circuit than 42440 series headers
- .100" lead-in for self-aligning connection with receptacle
- Polarizing pegs for increased board retention during wave soldering

Reference Information
Product Specification: PS-45750
Mates With: 42474, 44516 and 5557 receptacles and 46010 PCB receptacles
Use With: 44476 HCS terminals

Electrical
Voltage: 600V
Current: 12.0A max. (See applicable product specification.)
Contact Resistance: 10 milliohms max.

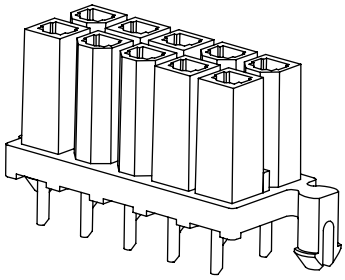
Mechanical
Mating Cycles: Tin—30 cycles
Gold—100 cycles

Physical
Housing: 6/6 nylon, UL 94V-0
Contact: High Copper Alloy
Plating: Tin or Select Gold

Circuits	Order No.		Tail Length	Lead-free
	Tin	30µ" Select Gold		
4	46011-0402	46011-0403	3.5mm (.14")	Yes
6	46011-0602	46011-0603		
10	46011-1002	46011-1003		
14	46011-1402	46011-1403		
18	46011-1802	46011-1803		
24	46011-2402	46011-2403		

4.20mm (.165") Pitch Mini-Fit Plus HCS™ PCB Receptacle

46010
Vertical Dual Row



Features and Benefits
- Fully polarized housing prevents mismating
- Board mounted receptacle for board-to-board applications
- Mateable with Mini-Fit BMI™ style housings and headers only
- The 46010 is not a floating connector. Guidance and float must be provided to align the connectors during mating and to provide stress-free positioning after mating.

Reference Information
Product Specification: PS-45750
Mates With: 42404 and 46011 headers, 42475 plug

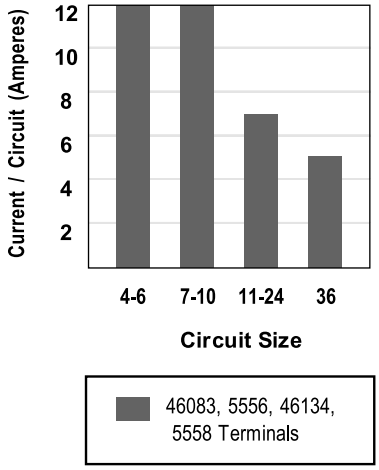
Electrical
Voltage: 600V
Current: 12.0A max. (See applicable product specification.)
Contact Resistance: 10 milliohms max.

Mechanical
Mating Force: 14.7N max.
Unmating Force: 1.0N min.
Normal Force: 1.47 N min.
Mating Cycles: Tin—30 cycles
Gold—100 cycles

Physical
Housing: 6/6 nylon, UL 94V-0
Contact: Copper Alloy
Plating: Tin or Select Gold

Circuits	Order No.		Tail Length	Lead-free
	Tin	30µ" Select Gold		
4	46010-0421	46010-0422	3.5mm (.14")	Yes
6	46010-0621	46010-0622		
10	46010-1021	46010-1022		
14	46010-1421	46010-1422		
18	46010-1821	46010-1822		
24	46010-2421	46010-2422		

4.20mm (.165") Pitch Mini-Fit BMI™ Connector System

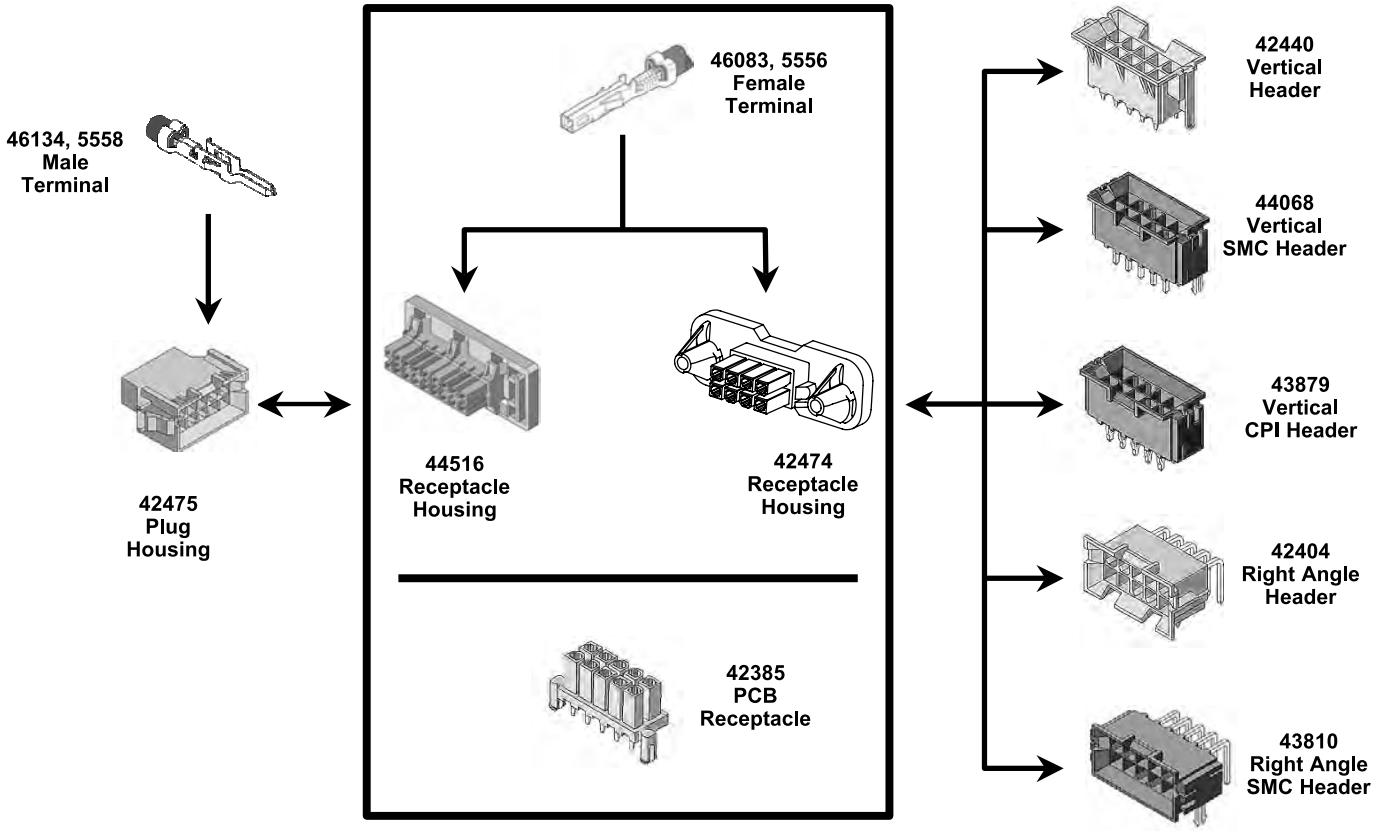


Features

- **Blindmating**
  The panel-mount receptacle housings are designed so they can float a maximum of ±1.27mm (.050") in the x and y-axis, once installed. The plug housings and the headers feature a wide lead-in bevel to gather and align the free-floating receptacle housings.
- **Configurations**
  Receptacle housings, PCB receptacles, plugs housings, and headers in different combinations enable panel-to-panel, panel-to-board or board-to-board designs.
- **Polarized Geometry**
  The receptacle housings and PCB receptacles are polarized to the plug housings and headers to minimize the chance of mismating the connectors.
- **Surface Mount Compatible Headers**
  Vertical and right angle headers for reflow solder processing are available.
- **Compliant Pin Headers**
  Vertical headers are available for flat rock/press fit processing
- **Lead-free**
  Unless otherwise noted, the Mini-Fit BMI connectors are lead-free.
- **MFBL**
  Molex offers mate first, break last header options

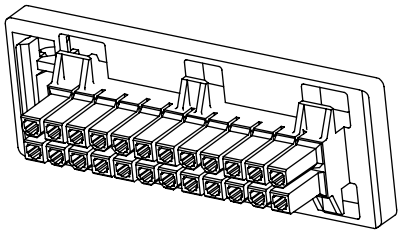
Specifications

Current Rating: 9.0A max. (16 AWG wire)
Voltage Rating : 600V
Contact Resistance:
10 milliohms max. (initial),
20 milliohms max. (after environmental testing)
Wire Range:
16 AWG (2.20 to 3.15mm insulation OD)
18 to 20 AWG (1.65 to 2.95mm insulation OD)
22 to 24 AWG (1.20 to 1.80mm insulation OD)
PCB Thickness:
1.60mm (0.062")—42440, 42404, 42385, 45567, 43973, 44068 and 43810
2.40mm (.094")—43644, 44068, 43810, 43879
3.20mm (0.125")—44068, 43810, 43879
6.40mm (0.250")—44068, 43810, 43879
Applicable PCB Solder Processes:
Wave Solder—42440, 42404, 42385, 45567,43973, 43644, 44068 and 43810
Reflow—44068, 43810
Press Fit—43879
Agency Approvals: UL, CSA, TUV



4.20mm (.165") Pitch Mini-Fit BMI Slide-and-Lock™ Crimp Terminal Housing Receptacle

44516
Dual Row, Panel Mount



Features and Benefits
- Blindmating panel mount connector
- Designed for wire-to-board or wire-to-wire applications
- Fully isolated silos to protect contacts from damage
- Slide-and-Lock feature allows receptacles to be installed and removed many times

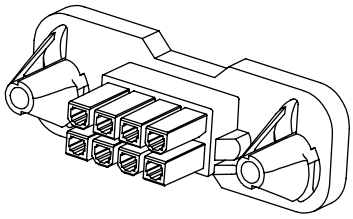
Reference Information
Product Specification: PS-44516-001
UL File No.: E29197
CSA File No.: LR19980
Mates With: 42440, 42404, 43759, 46011, 44068, 43810, 43879, 46099 or 46100 headers and 42475 or 43770 plug housings
Use With: 46083, 5556, 45750 or 46018 terminals
Panel Thickness: 1.19 to 1.57mm (.047 to .062")

Physical
Housing: PBT polyester, UL 94V-0

Circuits	Order No.	Lead-Free
4	Contact Molex	Yes
6		
10		
14		
18	44516-0009	
24	44516-0012	
36	44516-0013	

4.20mm (.165") Pitch Mini-Fit BMI™ Crimp Terminal Housing Receptacle

42474
Dual Row
With Panel Mount Ears



Features and Benefits
- Blind mating panel mount receptacle
- For wire-to-wire and wire-to-board applications
- Fully isolated terminals to protect contacts from damage

Reference Information
Product Specification: PS-5556-002
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75142-8
Mates With: 42404, 42440, 43810, 43879, 44068, 46011, 46099 and 46100 headers or 42475 plug
Use With: 5556, 46083, 45750 or 46018 terminals
Panel Thickness: 0.97 to 1.57mm (.038 to .062")

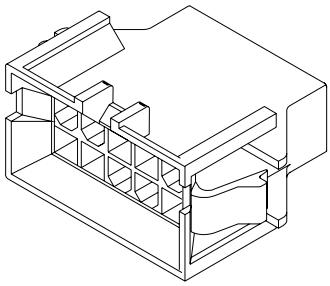
Physical
Housing: 6/6 nylon, UL 94V-2 or 94V-0

Circuits	Order No.	
	94V-2	94V-0
4	15-06-0040	15-06-0041
6	15-06-0060	15-06-0061
8	15-06-0080	
10	15-06-0100	15-06-0101
14	15-06-0140	15-06-0141
18	15-06-0180	15-06-0181
24	15-06-0240	15-06-0241

4.20mm (.165") Pitch Mini-Fit BMI™ Crimp Terminal Housing Plug

42475

Dual Row With Panel Mount Ears



Features and Benefits

- Blind mating panel mounted plug
- Positive housing locks to mate with Mini-Fit Jr.
- Fully isolated terminals to protect contacts from damage

Reference Information

Product Specification: PS-5556-002
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75142
Mates With: 5557, 42474 or 44516 receptacles and 42385, 46010 or 46101 PCB receptacles
Use With: 5558, 46134, 46012 or 46098 terminals
Panel Thickness: 1.60mm (.063") max.

Physical

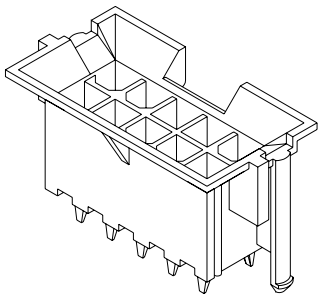
Housing: 6/6 nylon, UL 94V-2 or 94V-0

Circuits	Order No.	
	94V-2	94V-0
4	15-06-0045	15-06-0046
6	15-06-0065	15-06-0066
8	15-06-0085	
10	15-06-0105	15-06-0106
14	15-06-0145	15-06-0146
18	15-06-0185	15-06-0186
24	15-06-0245	15-06-0246

4.20mm (.165") Pitch Mini-Fit BMI™ Header

42440

Dual Row, Vertical, with Pegs



Features and Benefits

- .100" lead-in for self aligning connection with receptacle
- Standard with drain holes to allow PCB washing after wave soldering (contact Molex for headers without drain holes)
- Fully isolated terminals to protect contacts from damage

Reference Information

Product Specification: PS-5556-002
UL File No.: E29179
CSA File No.: LR19980
Mates With: 44516, 42474 and 5557 dual row receptacles or 42385 PCB receptacles

Electrical

Voltage: 600V
Current: 9.0A max. (See applicable product specification.)
Contact Resistance: 10 milliohms max.

Mechanical

Mating Cycle: 30 cycles

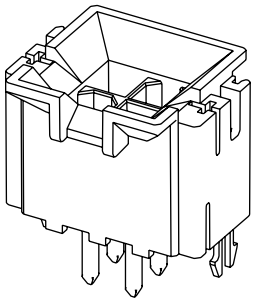
Physical

Housing: 6/6 nylon, UL 94V-2 or 94V-0
Contact: Brass
Plating: Tin or Select Gold

Circuits	Order No.				Tail Length	Lead-free
	Tin		30µ" Select Gold			
	94V-2	94V-0	94V-2	94V-0		
4	15-24-6046	15-24-6047	15-28-6046	15-28-6047	3.5mm (.14")	Yes
6	15-24-6066		15-28-6066			
10	15-24-6106	15-24-6107	15-28-6106	15-28-6107		
14	15-24-6146	15-24-6147	15-28-6146	15-28-6147		
18	15-24-6186	15-24-6187	15-28-6186	15-28-6187		
24	15-24-6246	15-24-6247	15-28-6246	15-28-6247		

4.20mm (.165") Pitch Mini-Fit BMI™ Surface Mount Compatible Header

44068
Vertical, Dual Row



Features and Benefits
- Surface Mount Compatible (245°C)
- Fully isolated terminals to protect contacts from damage
- Designs for variety of board thicknesses
- Metal retention clip holds product before and after the soldering process
- Blind-mating capabilities
- Availaable without clips

Reference Information
Product Specification: PS-43810-001
Mates With: 42474, 44516 and 5557 dual row receptacles and 42385 or 46010 PCB receptacle headers

Electrical
Voltage: 600V
Current: 12.0A max. (See applicable product specification.)
Contact Resistance: 10 milliohms max.

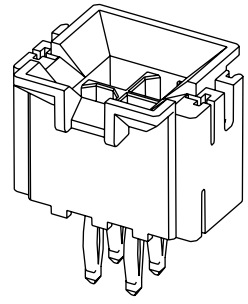
Mechanical
Mating Cycles: 30 cycles

Physical
Housing: 4/6 nylon, UL 94V-0
Contact: Brass
Plating: Tin or Select Gold

Circuits	Plating	Order No.			Lead-Free
		Tail Length 3.30mm (.130")	Tail Length 4.42mm (.174")	Tail Length 4.88mm (.192")	
4	Tin	44068-0001	44068-0045	44068-0089	Yes
	30µ" Select Gold	44068-0012	44068-0056	44068-0100	
6	Tin	44068-0002	44068-0046	44068-0090	
	30µ" Select Gold	44068-0013	44068-0057	44068-0101	
10	Tin	44068-0004	44068-0048	44068-0092	
	30µ" Select Gold	44068-0015	44068-0059	44068-0103	
14	Tin	44068-0006	44068-0050	44068-0094	
	30µ" Select Gold	44068-0017	44068-0061	44068-0105	
18	Tin	44068-0008	44068-0052	44068-0096	
	30µ" Select Gold	44068-0019	44068-0063	44068-0107	
24	Tin	44068-0011	44068-0055	44068-0099	
	30µ" Select Gold	44068-0022	44068-0066	44068-0110	

4.20mm (.165") Pitch Mini-Fit BMI™ Compliant Pin Header

43879
Vertical, Dual Row



Features and Benefits
- Press-fit pin requiring no soldering
- Blindmating capabilities
- Designed for multiple board thicknesses

Reference Information
Product Specification: PS-43879-001
Mates With: 5557, 42385 and 42474 receptacles
PCB Thickness: .088" min.
Process: Press fit

Electrical
Voltage: 600V
Current: 7.0A max. (See applicable product specification.)
Contact Resistance: 10 milliohms max.

Mechanical
Insertion Force to PCB: 20kg max.
Mating Cycles: 30 cycles

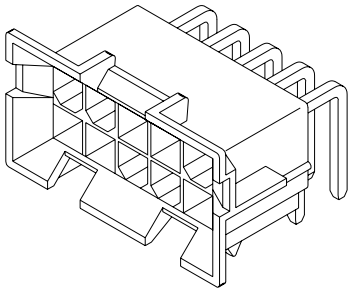
Physical
Housing: 4/6 nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin or Select Gold

Circuits	Order No.		Lead-free
	Tin	30µ" Select Gold	
4	43879-0022	43879-0055	Yes
6	43879-0023	43879-0056	
10	43879-0025	43879-0058	
14	43879-0027	43879-0060	
18	43879-0029	43879-0062	
24	43879-0032	43879-0065	

Circuits	Order No.		Lead-free
	Tin	30µ" Select Gold	
4	43879-0044	43879-0033	No
6	43879-0045	43879-0034	
10	43879-0047	43879-0036	
14	43879-0049	43879-0038	
18	43879-0051	43879-0040	
24	43879-0054	43879-0043	

4.20mm (.165") Pitch Mini-Fit BMI™ Header

42404
Right Angle Dual Row



Features and Benefits
- Blindmating capabilities
- Fully isolated terminals to protect contacts from damage

Reference Information
Product Specification: PS-5556-002
UL File No.: E29179
CSA File No.: LR19980
Mates With: 42474, 44516 and 5557 dual row housings or 42385 and 46010 PCB receptacle headers

Electrical
Voltage: 600V
Current: 12.0A max. (See applicable product specification.)
Contact Resistance: 10 milliohms max.

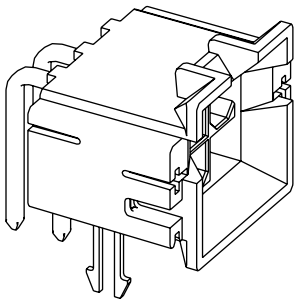
Mechanical
Mating Cycles: 30 cycles

Physical
Housing: 6/6 nylon, UL 94V-2 or UL 94V-0
Contact: Brass
Plating: Tin or Select Gold

Circuits	Order No.				Tail Length	Lead-free
	Tin		30µ" Select Gold			
	94V-2	94V-0	94V-2	94V-0		
4	15-24-6040	15-24-9044	15-24-9047	15-24-6043	3.3mm (.13")	Yes
6	15-24-6060	15-24-9064	15-24-9067	15-24-6063		
10	15-24-6100	15-24-9104	15-24-9107	15-24-6103		
14	15-24-6140	15-24-9144	15-24-9147	15-24-6143		
16		15-24-9164				
18	15-24-6180	15-24-9184	15-24-9187	15-24-6183		
24	15-24-6240	15-24-9244	15-24-9247	15-24-6243		

4.20mm (.165") Pitch Mini-Fit BMI™ Surface Mount Compatible Header

43810
Right Angle, Dual Row



Features and Benefits
- Surface Mount Compatible (245˚C)
- Fully isolated terminals to protect contacts from damage
- Metal retention clip holds product before and after the soldering process
- Blind-mating capabilities
- Designs for variety of board thicknesses available
- Available without clips

Reference Information
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75142
Mates With: 42474, 44516 and 5557 receptacles and 42385 or 46010 PCB receptacles

Electrical
Voltage: 600V
Current: 12.0A max. (See applicable product specification.)
Contact Resistance: 10 milliohms max.

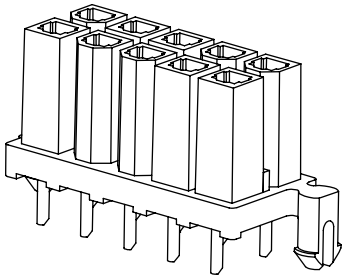
Mechanical
Mating Cycles: 30 cycles

Physical
Housing: 4/6 nylon, UL 94V-0
Contact: Brass
Plating: Tin or Select Gold

Circuits	Plating	Order No.	Tail Length	Lead-free
		1.60mm (.063") PCB Thickness		
4	Tin	43810-0001	3.12mm (.123")	Yes
	30µ" Select Gold	43810-0012		
6	Tin	43810-0002		
	30µ" Select Gold	43810-0013		
10	Tin	43810-0004		
	30µ" Select Gold	43810-0015		
14	Tin	43810-0006		
	30µ" Select Gold	43810-0017		
18	Tin	43810-0008		
	30µ" Select Gold	43810-0019		
24	Tin	43810-0011		
	30µ" Select Gold	43810-0022		

4.20mm (.165") Pitch Mini-Fit BMI™ PCB Receptacle

42385
Vertical Dual Row



Features and Benefits
- Board-mounted receptacle for board-to-board applications
- Fully isolated terminals to protect contacts from damage
- The 42385 series is not inherently blindmating. Guidance to align the connectors during mating and float to provide stress-free positioning after mating must be provided

Reference Information
Product Specification: PS-5556-002
UL File No.: E29179
CSA File No.: LR19980
Mates With: 42475 plug, 42404, 42440, 43810, 43879 and 44068 headers

Electrical
Voltage: 600V
Current: 9.0A max. (See applicable product specification.)
Contact Resistance: 10 milliohms max.

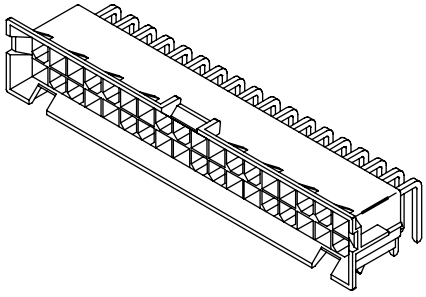
Mechanical
Mating Force: 14.7N max.
Unmating Force: 1.0N max.
Normal Force: 1.47N min.
Mating Cycles: 30 cycles

Physical
Housing: 6/6 nylon, UL 94V-2 or 94V-0
Contact: Brass
Plating: Tin or Select Gold

Circuits	Order No.				Tail Length	Lead-free
	Tin		30µ" Select Gold			
	94V-2	94V-0	94V-2	94V-0		
4	15-24-7040	15-24-7041	15-24-7042	15-24-7043	3.5mm (.14")	Yes
6	15-24-7060	15-24-7061	15-24-7062	15-24-7063		
10	15-24-7100	15-24-7101	15-24-7102	15-24-7103		
14	15-24-7140	15-24-7141	15-24-7142	15-24-7143		
16	15-24-7160	15-24-7161	15-24-7162	15-24-7163		
18	15-24-7180	15-24-7181	15-24-7182	15-24-7183		
24	15-24-7240	15-24-7241	15-24-7242	15-24-7243		

4.20mm (.165") Pitch Mini-Fit BMI™ Header

45567
Right Angle Dual Row



Features and Benefits
- Blindmating capabilities
- Top row of pins in header are longer and engage first when mated to reduce overall insertion force
- Fully isolated terminals to protect contacts from damage

Reference Information
Mates With: 44516 housing

Electrical
Voltage: 600V
Current: 6.0A

Mechanical
Mating Cycles: 30 cycles

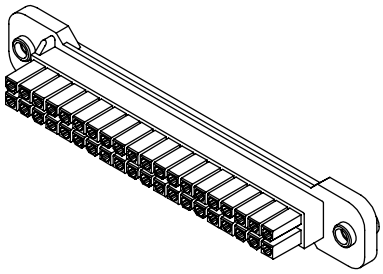
Physical
Housing: Black polyester, UL 94V-0
Contact: Brass
Plating: Tin or Select Gold

Circuits	Order No.		Tail Length	Lead-free
	Tin	30µ" Select Gold		
36	45567-0001	45567-0002	3.3mm (.13")	Yes

4.20mm (.165") Pitch Mini-Fit BMI™ Crimp Terminal Housing Receptacle

43974

Dual Row
With Panel Mount Ears



Circuits	Order No.	Lead-Free
40	43974-0005	Yes

Features and Benefits
- Blind mating panel mount receptacle
- For wire-to-board applications
- Fully isolated terminals to protect contacts from damage

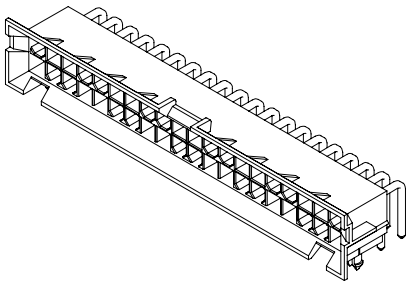
Reference Information
UL File No.: E29179
CSA File No.: LR19980
TUV License: R75142
Mates With: 43973 headers
Use With: 45750, 46083, 46108 and 5556 terminals
Accepts self tapping screws

Physical
Housing: Black 4/6 nylon, UL 94V-0

4.20mm (.165") Pitch Mini-Fit BMI™ Header

43973

Right Angle
Dual Row



Circuits	Order No.		Tail Length	Lead-free
	Tin	30µ" Select Gold		
40	43973-0001	Contact Molex	3.30mm (.130")	Yes

Features and Benefits
- Blindmating capabilities
- Top row of pins in header are longer and engage first when mated to reduce overall insertion force
- Fully isolated terminals to protect contacts from damage

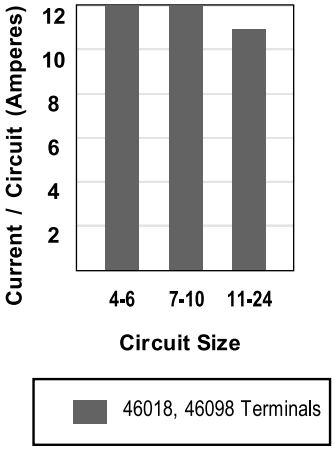
Reference Information
Product Specification: PS-43759-0001
UL File No.: E29179
CSA File No.: LR19980
TUV License: R75142
Mates With: 43974 receptacle housing

Electrical
Voltage: 600V
Current: 6.0A max.
Contact Resistance: 10 milliohms max.

Mechanical
Mating Cycles: 30 cycles

Physical
Housing: Black 4/6 nylon, UL 94V-0
Contact: Brass Alloy
Plating: Tin or Select Gold

4.20mm (.165") Pitch Mini-Fit Plus HMC™ Connector System

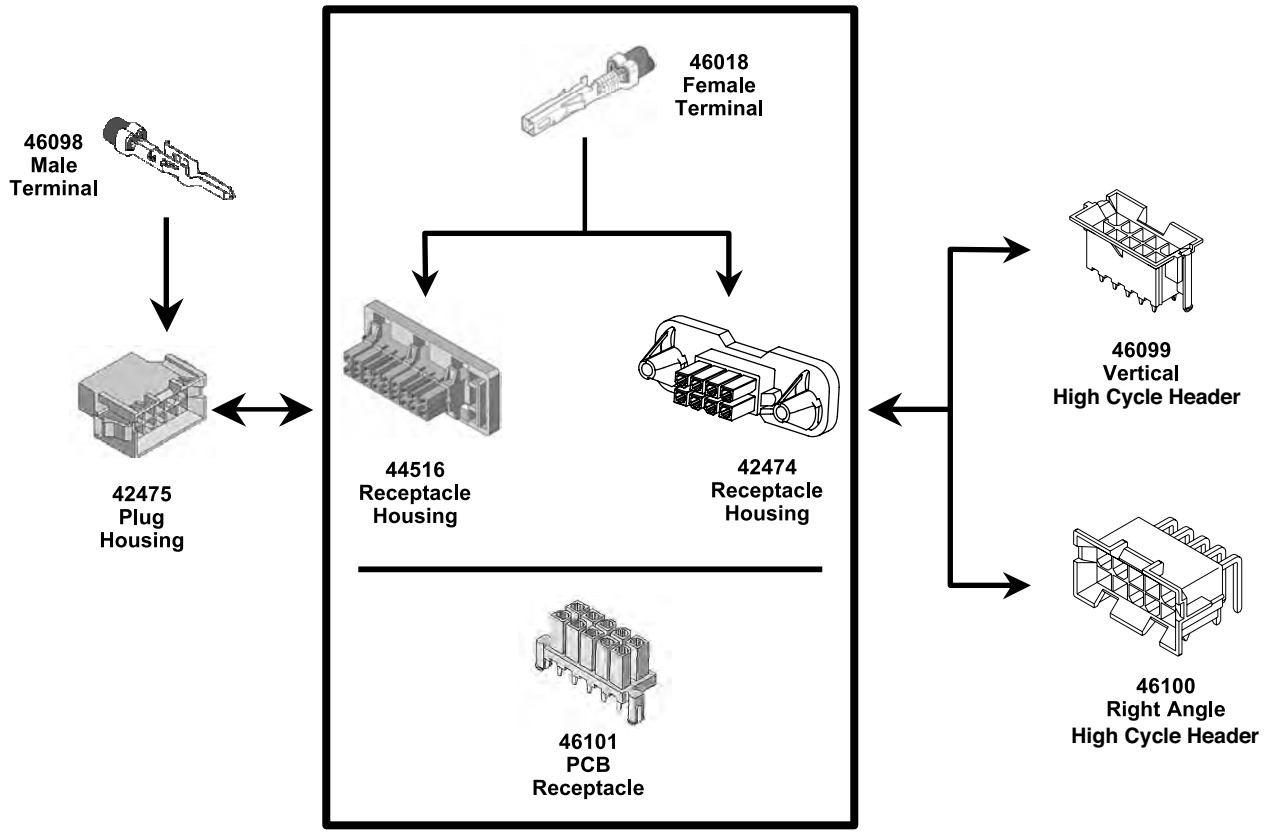


Features

- **Enhanced Durability**
  The large elliptical contact configuration and Palladium Nickel plating allow these connectors to be mated hundreds of times while maintaining low contact resistance.
- **Blindmating**
  The panel-mount receptacle housings are designed to float ±1.27mm (.050") in the x and y-axes, once installed. The plug housings and the headers feature a wide lead-in bevel to gather and align the free-floating receptacle housings.
- **Configurations**
  Receptacle housings, PCB receptacles, plugs housings and headers in different combinations enable panel-to-panel, panel-to-board or board-to-board designs.
- **Polarized Geometry**
  The receptacle housings and PCB receptacles are polarized to the plug housings and headers to minimize the chance of mismating the connectors.
- **Lead-free**
  All Mini-Fit Plus HMC connectors have been lead-free since inception.

Specifications

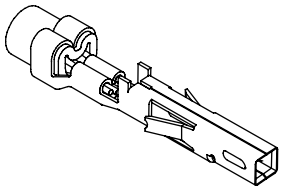
Current Rating: 12.0A max. (16 AWG wire)
Voltage Rating: 600V
Contact Resistance:
10 milliohms max. (initial)
Wire Range:
16 AWG
18 to 20 AWG
22 to 24 AWG
Plating: Gold flash over Palladium Nickel
Durability: 1,000 cycles



4.20mm (.165") Pitch Mini-Fit Plus HMC™ Terminal

46018

Crimp, Female



Features and Benefits

- Post-plated contacts for superior electrical performance over time
- High cycle terminal for power/signal applications
- Ideal for rack-mounted or drawer connecting modules requiring multiple insertions

Reference Information

Product Specification: PS-46018
UL File No: E29179
CSA File No: LR19980
TUV License No: R75142
Use with: 42474 and 44516 receptacles

Electrical

Current: 12.0A max. (See applicable product specification.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

Mechanical

Mating Force: 14.7N max. per contact
Unmating Force: 1.0N min. per contact
Normal Force: 0.49N min. per contact
Mating Cycles: 1,000 cycles

Physical

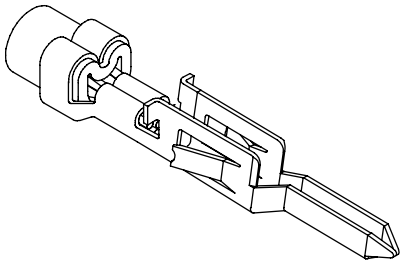
Contact Material: Copper Alloy
Wire Size: 16-24 AWG (See Product and Application Tooling specifications for complete crimping guidelines.)

Wire Size (AWG)	Plating	Order Number		Lead-free
		Reel	Bag	
16	Gold flash over Palladium Nickel	46018-3541	46018-3542	Yes
18-20		46018-1541	46018-1542	
22-24		46018-2541	46018-2542	

4.20mm (.165") Pitch Mini-Fit Plus HMC™ Terminal

46098

Crimp, Male



Features and Benefits

- Post-plated contacts for superior electrical performance over time
- High cycle terminal for power/signal applications
- Ideal for rack-mounted or drawer connecting modules requiring multiple insertions

Reference Information

Product Specification: PS-46018
UL File No: E29179
Use With: 42475 plug housing

Electrical

Current: 12.0A max. (See applicable product specification.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

Mechanical

Mating Force: 14.7N max. per contact
Unmating Force: 1.0N max. per contact
Normal Force: 0.49N min. per contact
Mating Cycles: 1,000 cycles

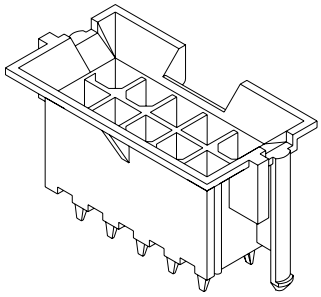
Physical

Contact Material: Copper Alloy
Wire Size: 16-24 AWG (See Product and Application Tooling specifications for complete crimping guidelines.)

Wire Range AWG	Plating	Order Number		Lead-free
		Reel	Bag	
16	Gold Flash over Palladium Nickel	46098-3541	46098-3542	Yes
18-20		46098-1541	46098-1542	
22-24		46098-2541	46098-2542	

4.20mm (.165") Pitch Mini-Fit Plus HMC™ Header

46099
Vertical Dual Row



Features and Benefits
- Fully isolated terminals to protect contacts from damage
- Blind-mating header

Reference Information
Product Specification: PS-46018
UL File No: E29179
Mates With: 46101 PCB receptacles and 42474 or 44516 receptacles
Use With: 46018 High-cycle terminals

Electrical
Current: 12.0A max. (16 AWG min.) (See applicable product specification.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

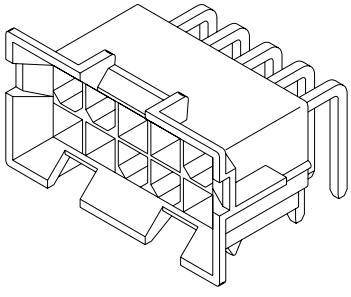
Mechanical
Mating Cycles: 1,000 cycles

Physical
Housing: 6/6 nylon, UL 94V-0
Contact Material: Copper Alloy

Circuits	Order No.	Tail Length	Plating	Lead-Free
4	46099-0411	3.5mm	Gold Flash over Palladium Nickel	Yes
6	46099-0611			
10	46099-1011			
14	46099-1411			
18	46099-1811			
24	46099-2411			

4.20mm (.165") Pitch Mini-Fit Plus HMC™ Header

46100
Right Angle Dual Row



Features and Benefits
- Fully isolated terminals to protect contacts from damage
- Blind-mating header

Reference Information
Product Specification: PS-46018
UL File No: E29179
Mates With: 46101 PCB receptacles and 42474 or 44516 receptacles
Use With: 46018 High-cycle terminals

Electrical
Current: 12.0A max. (16 AWG wire) (See applicable product specification.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

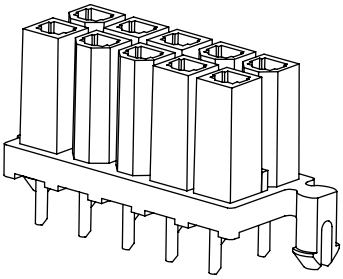
Mechanical
Mating Cycles: 1,000 cycles

Physical
Housing: 6/6 nylon, UL 94V-0
Contact Material: Copper Alloy

Circuits	Order No.	Tail Length	Plating	Lead-Free
4	46100-0411	3.3mm	Gold Flash over Palladium Nickel	Yes
6	46100-0611			
10	46100-1011			
14	46100-1411			
18	46100-1811			
24	46100-2411			

4.20mm (.165") Pitch Mini-Fit Plus HMC™ PCB Receptacle

46101
Vertical Dual Row



Features and Benefits
- Post-plated contacts for superior electrical performance over time
- Board-mounted receptacle header for board-to-board applications
- Fully isolated terminals to protect contacts from damage
- The 46101 is not a floating connector. Guidance and float must be provided to align the connectors during mating and to provide stress-free positioning after mating.

Reference Information
Product Specification: PS-46018
UL File No: E29179
Mates With: 42475 plug or 46100 and 46099 header
Use With: 46098 High-cycle terminals

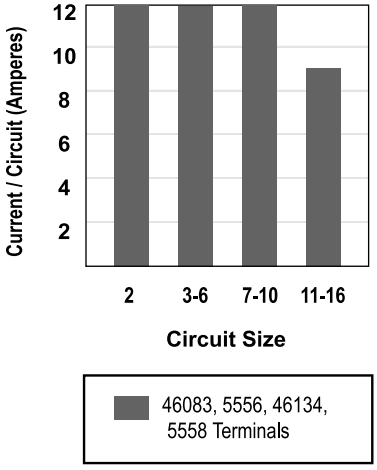
Electrical
Current: 12.0A max. (See applicable product specification.)
Voltage: 600V
Contact Resistance: 10 milliohms max.

Mechanical
Mating Force: 14.7N max. per contact
Unmating Force: 1.0N min. per contact
Normal Force; 1.96 N min. per contact
Mating Cycles: 1,000 cycles

Physical
Housing: 6/6 nylon, UL 94V-0
Contact material: Copper Alloy

Circuits	Order No.	Tail Length	Plating	Lead-free
4	46101-0411	3.5mm (.14")	Gold Flash over Palladium Nickel	Yes
6	46101-0611			
10	46101-1011			
14	46101-1411			
18	46101-1811			
24	46101-2411			

4.20mm (.165") Pitch Mini-Fit TPA™ Connector System

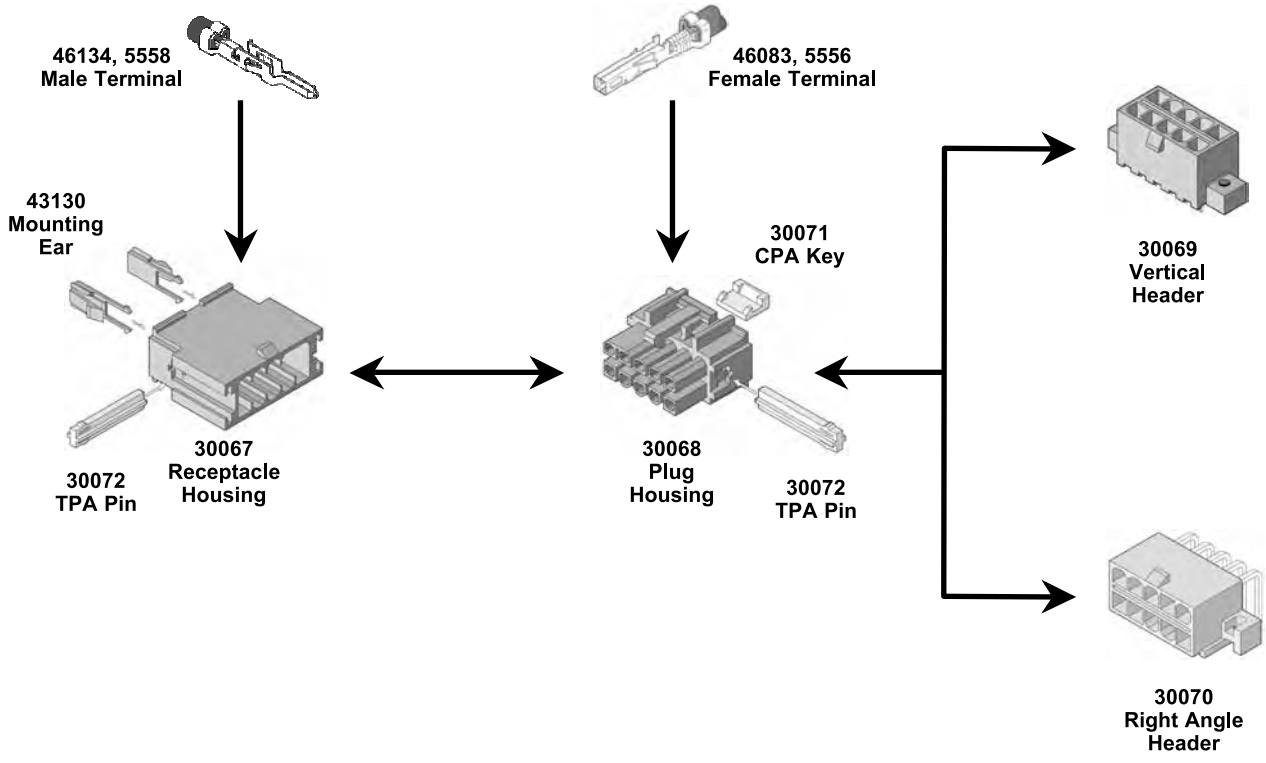


Features

- **Terminal Position Assurance (TPA)**
  Terminal Position Assurance Pins are inserted into the receptacle or plug housings and will only fully seat if all the terminals have been fully engaged. The terminals are then held in place and can not back out.
- **Positive Locking**
  Each receptacle housing is equipped with a locking thumblatch. Each plug housing or header features a locking ramp. When mated, the latch and ramp prevent the connectors from accidental unmating.
- **Configurations**
  The receptacle housings, plug housings, and headers allow designs for wire-to-wire or wire-to-board applications.
- **Polarized Mating Geometry**
  The receptacle housings and PCB receptacles are polarized relativeto the plug housings and headers to minimize the chance of mismating the connectors.
- **Lead-free**
  The Mini-Fit TPA connectors are lead-free.

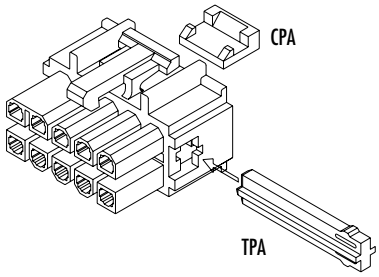
Specifications

Current Rating: 9.0A max. (16 AWG wire)
Voltage Rating: 600V
Contact Resistance:
10 milliohms max. (initial),
20 milliohms max. (after environmental testing)
Wire Range:
16 AWG (2.20 to 3.15mm insulation OD)
18 to 20 AWG (1.65 to 2.95mm insulation OD)
22 to 24 AWG (1.20 to 1.80mm insulation OD)
Plating Options: Tin or Select Gold
Housing Material: Polyester, UL 94V-0
PCB Thickness: 1.6mm (0.62")—30069, 30070
Applicable PCB Solder Process: Wave solder only
Agency Approvals: UL, CSA, TUV



4.20mm (.165") Pitch Mini-Fit TPA™ Crimp Terminal Housing Receptacle

30067
Dual Row With Secondary Terminal Retention



Features and Benefits
- Receptacle housing for wire-to-wire and wire-to-board applications
- Terminal Position Assurance (TPA) allows the terminal to be fully seated in the housing assuring that it will not back out during high vibration applications
- Connector Position Assurance (CPA) assures housing cannot be inadvertently disengaged
- Contrasting color (white) TPA/CPA for high visibility
- TPA and CPA keys are sold individually to meet customer-specific needs

Reference Information
Product Specification: PS-5556-003
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75142
Use With: 46083, 45750, and 5556 terminals
Mates With: 30068 housing, 30069 and 30070 headers

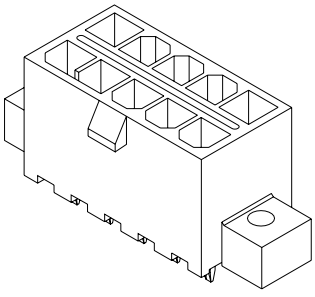
Physical
Housing: Black polyester, UL 94V-0

Circuits	Order No.			Lead-free
	Receptacle (30067 Series)	TPA Pin (30072 Series)	CPA Key (30071 Series)	
2	15-97-5021	15-97-9041*	15-97-0071†	Yes
4	15-97-5041			
6	15-97-5061	15-97-9061		
8	15-97-5081	15-97-9081		
10	15-97-5101	15-97-9101		
12	15-97-5121	15-97-9121		
16	15-97-5161	15-97-9161		

* The same TPA pin is used for both the 2 and 4 circuit receptacles
† The same CPA key is used for all receptacles, regardless of circuit size

4.20mm (.165") Pitch Mini-Fit TPA™ Header

30069
Vertical, Dual Row With Flanges, Without Drain Holes



Features and Benefits
- Wire-to-board vertical header with mounting flanges for increased retention
- Positive housing locking ramp
- Fully isolated terminals

Reference Information
Product Specification: PS-5556-003
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75142
Mates With: 30067 receptacle

Electrical
Voltage: 600V
Current: 9.0A max. (See applicable product specification.)
Contact Resistance: 10 milliohms max.

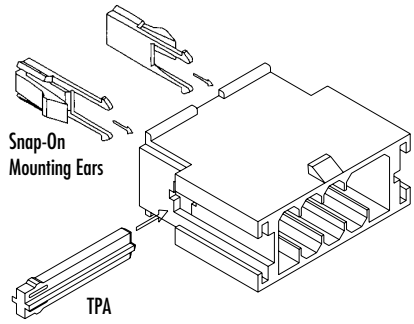
Mechanical
Mating Cycles: 30 cycles

Physical
Housing: Black polyester, UL 94V-0
Contact: Brass
Plating: Tin or Select Gold

Circuits	Order No.		Tail Length	Lead-free
	Tin	30µ" Select Gold		
2	30069-0211	15-97-7024	3.50mm (.140")	Yes
4	30069-0411	15-97-7044		
6	30069-0611	15-97-7064		
8	30069-0811	15-97-7084		
10	30069-1011	15-97-7104		
12	30069-1211	15-97-7124		
16	30069-1611	15-97-7164		

4.20mm (.165") Pitch Mini-Fit TPA™ Crimp Terminal Housing Plug

30068
Dual Row with Secondary Terminal Retention



Features and Benefits
- Plug housing for wire-to-wire applications
- Terminal Position Assurance (TPA) allows the terminal to be fully seated in the housing, assuring that it will not back out during high-vibration applications
- TPA key is sold individually to meet customer-specific needs
- Optional snap-on ears for panel mounting
- Contrasting color (white) TPA/CPA for high visibility

Reference Information
Product Specification: PS-5556-003
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75142
Use With: 46314, 46012 and 5558 terminals
Mates With: 30067 housing

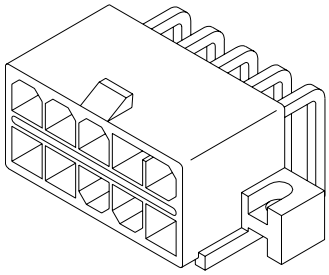
Physical
Housing: Black polyester, UL 94V-0

Circuits	Order No.			Lead-free
	Plug (30068 Series)	TPA Pin (30072 Series)	Snap-on Mounting Ears	
2	15-97-6021	15-97-9041*	43130-0001†	Yes
4	15-97-6041			
6	15-97-6061	15-97-9061		
8	15-97-6081	15-97-9081		
16	15-97-6161	15-97-9161		

* The same TPA pin is used for both the 2 and 4 circuit plugs
† Two snap-on mounting ears required per plug housing for panel mounting application

4.20mm (.165") Pitch Mini-Fit TPA™ Header

30070
Right Angle, Dual Row With Flanges



Features and Benefits
- Wire-to-board right angle header with mounting flanges
- Positive housing locking ramp
- Fully isolated contacts

Reference Information
Product Specification: PS-5556-003
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R75142
Mates With: 30067 receptacle

Electrical
Voltage: 600V
Current: 12.0A max. (See applicable product specification.)
Contact Resistance: 10 milliohms max.

Mechanical
Mating Cycles: 30 cycles

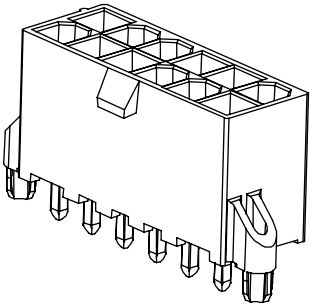
Physical
Housing: Black polyester, UL 94V-0
Contact: Brass
Plating: Tin or Select Gold

Circuits	Order No.		Tail Length	Lead-free
	Tin	30µ" Select Gold		
2	30070-0225	30070-0222	3.50mm (.140")	Yes
4	30070-0425	30070-0422		
6	30070-0625	30070-0622		
8	30070-0825	30070-0822		
10	30070-1025	30070-1022		
12	30070-1225	30070-1222		
16	30070-1625	30070-1622		

4.20mm (.165") Pitch Mini-Fit RTC Header

46207

Vertical with and without Pegs



Features and Benefits

- RTC-reflow temperature compatible
- Optional board-mounting pegs provide polarization during placement on the PCB and increased retention during soldering process
- Positive housing locks to mate with Mini-Fit Jr.™ receptacle
- Fully isolated terminals to protect contacts from damage

Reference Information

Product Specification: PS-46207-001
Mates With: 5557 Receptacles

Electrical

Voltage: 600V
Current: 12.0A max. (see applicable product spec)
Contact Resistance: 10 milliohms max.

Mechanical

Durability: 30 cycles

Physical

Housing: LCP, UL 94V-0
Contact: Brass
Plating: Tin

Circuits	Order No.					
	Tail Length = 3.66mm (.144")		Tail Length = 4.46mm (.176")		Tail Length = 5.26mm (.207")	
	With Pegs	Without Pegs	With Pegs	Without Pegs	With Pegs	Without Pegs
4	46207-0004	46207-1004	46207-0104	46207-1104	46207-0204	46207-1204
6	46207-0006	46207-1006	46207-0106	46207-1106	46207-0206	46207-1206
8	46207-0008	46207-1008	46207-0108	46207-1108	46207-0208	46207-1208
10	46207-0010	46207-1010	46207-0110	46207-1110	46207-0210	46207-1210
12	46207-0012	46207-1012	46207-0112	46207-1112	46207-0212	46207-1212
24	46207-0024	46207-1024	46207-0124	46207-1124	46207-0224	46207-1224

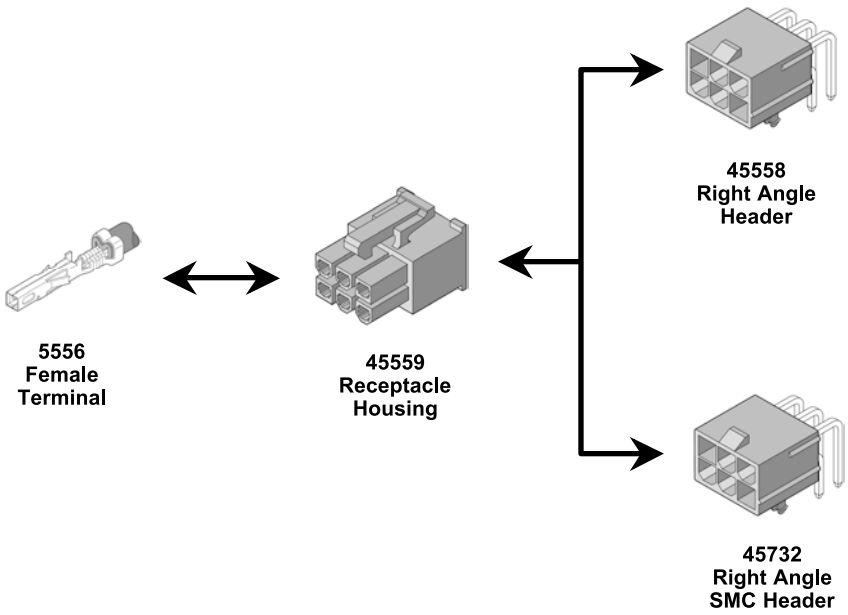
4.20mm (.165") Pitch Mini-Fit® PCIe Connector System

Features

- **PCI Express Standard**
  Designed to meet the PCI Express™ power connector requirements for high-end graphics card applications.
- **Unique Mating Geometry**
  The receptacle housing and the headers feature a custom polarization scheme so they will only mate with each other and no standard Mini-Fit connectors.
- **Positive Locking**
  The receptacle housings are equipped with a locking thumblatch. The headers feature a locking ramp. When mated, the latch and ramp prevent the connectors from accidental unmating.
- **Configuration**
  The receptacle housings and right angle headers are designed for wire-to-board applications.
- **Polarizing Pegs**
  Polarizing pegs orient the headers on the PCB so they are not inserted backwards and hold the headers to the PCB during the soldering process.
- **Surface Mount Compatible Headers**
  The 45732 series headers are designed for reflow solder processing.
- **Lead-free**
  All Mini-Fit PCIe connectors have been lead-free since inception.

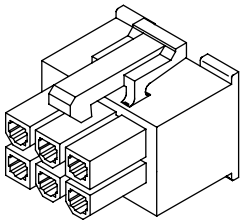
Specifications

Current Rating: 8.0A max. (16 AWG wire)
Voltage Rating: 600V
Contact Resistance:
10 milliohms max. (initial)
20 milliohms max. (after environmental testing)
Wire Range:
16 AWG (1.80 to 3.10mm insulation OD)
18 to 24 AWG (1.30 to 3.10mm insulation OD)
Plating: Tin Only
PCB Thickness: 1.6mm (0.62")
Applicable PCB Solder Processes: Wave Solder—45558
Reflow—47234



4.20mm (.165") Pitch Mini-Fit® PCI Express* Crimp Terminal Housing Receptacle

45559



Features and Benefits

- Designed for wire-to-board PCI Express high-end graphics card applications only
- Positive locking latch for secure retention to a header when mated
- Integral pull tabs for ease in unmating
- Fully isolated terminals to protect contacts from damage
- Polarized geometry to prevent mismating the header and receptacle

Reference Information

Product Specification: PS-45558-001
Mates With: 45558 or 45732 headers only
Use With: 5556 or 46083 terminals
Designed In: Millimeters

Physical

Housing: 6/6 nylon, UL 94V-0

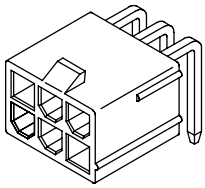
Circuits	Order No.	Lead-Free
6	45559-0002	Yes

*Note: PCI Express is a registered trademark of the Peripheral Component Interchange Special Interest Group (PCI-SIG).

4.20mm (.165") Pitch Mini-Fit® PCI Express* Header

45558

Right Angle



Features and Benefits

- Designed for wire-to-board PCI Express high-end graphics card applications only
- Positive locking for secure retention to a receptacle when mated
- Locking pegs assure optimum PCB retention during wave-soldering
- Fully isolated terminals to protect contacts from damage
- Polarized geometry to prevent mismating the header and receptacle

Reference Information

Product Specification: PS-45558-001
Mates With: 45559 receptacle housing only

Electrical

Voltage: 600V
Current: 8.0A max. (See applicable product specification.)
Contact Resistance: 10 milliohms max.

Physical

Housing: 6/6 nylon, UL 94V-0
Contact: Brass
Plating: Tin

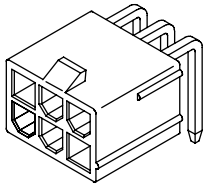
Circuits	Order No.	Tail Length	Lead-Free
6	45558-0002	3.5mm (.140")	Yes

*Note: PCI Express is a registered trademark of the Peripheral Component Interchange Special Interest Group (PCI-SIG).

4.20mm (.165") Pitch Mini-Fit® PCI Express* Header

45732

Surface Mount Compatible Right Angle



Circuits	Order No.	Lead-Free
6	45732-0001	Yes

*Note: PCI Express is a registered trademark of the Peripheral Component Interchange Special Interest Group (PCI-SIG).

Features and Benefits
- Designed for wire-to-board PCI Express high-end graphics card applications only
- Surface mount process capable
- Positive locking for secure retention to a receptacle when mated
- Friction pegs assure optimum PCB retention during processing
- Fully isolated terminals to protect contacts from damage
- Polarized geometry to prevent mismating the header and receptacle

Reference Information
Product Specification: PS-45558-0001
Mates With: 45559 receptacle housing only

Electrical
Voltage: 600V
Current: 8.0A max. (See applicable product specification.)
Contact Resistance: 10 milliohms max.

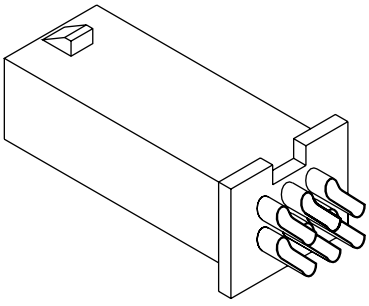
Mechanical
Mating Cycles: 30 cycles

Physical
Housing: LCP, UL 94V-0
Contact: Brass
Plating: Tin

4.20mm (.165") Pitch Mini-Fit® Family Test Plug

44281

Dual Row



Circuits	Order No.	Lead-free
4	44281-0001	Yes
6	44281-0002	
8	44281-0003	
10	44281-0004	
12	44281-0005	
14	44281-0006	
16	44281-0007	

Circuits	Order No.	Lead-free
18	44281-0008	Yes
20	44281-0009	
22	44281-0010	
24	44281-0011	
36	44281-0012	
40	44281-0013	

Important: Mini-Fit test plugs cannot be mated or unmated under load. All current must be shut off prior to mating or unmating. Product is intended for low level continuity testing only.

Features and Benefits
- Spring-loaded male contacts that prevent damage to the female contact
- Rated for 1000s of mating cycles
- Recommended for continuity testing
- Minimizes expense and downtime for test plug replacement

Reference Information
Product Specification: PS-44281-001
UL File No.: E29179
CSA File No.: LR19980
Solder cups accept 22-26 AWG wire

Electrical
Electrical Voltage: 600V

Mechanical
Mating Cycles: 10,000 cycles

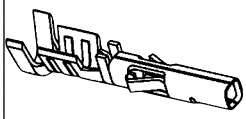
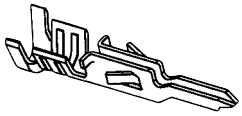
Physical
Housing: 4/6 nylon, UL 94V-0
Contact: Beryllium Copper
Plating: Gold

3.00mm (.118") Pitch Micro-Fit 3.0™ Family

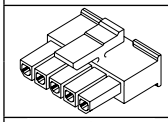
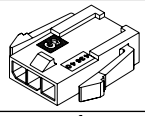
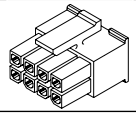
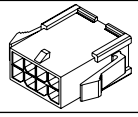
Micro-Fit 3.0

- Fully-isolated contacts
- Full polarization
- Positive locks
- Up to 5.0A per circuit
- 250V AC rating
- UL 94V-0, CSA, TUV approved

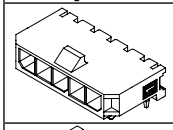
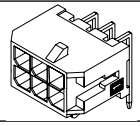
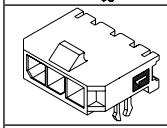
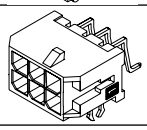
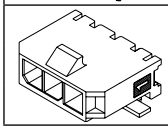
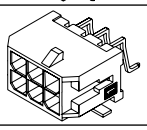
Crimp Terminals

	Description	Order No.		Wire Gauge	Plating
		Reel	Bag		
	Female Terminal	43030-0001	43030-0007	20-24	Tin
		43030-0004	43030-0010	26-30	
		43030-0002	43030-0008	20-24	15µ" Gold
		43030-0005	43030-0011	26-30	
		43030-0003	43030-0009	20-24	30µ" Gold
		43030-0006	43030-0012	26-30	
	Male Terminal	43031-0001	43031-0007	20-24	Tin
		43031-0004	43031-0010	26-30	
		43031-0002	43031-0008	20-24	15µ" Gold
		43031-0005	43031-0011	26-30	
		43031-0003	43031-0009	20-24	30µ" Gold
		43031-0006	43031-0012	26-30	

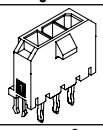
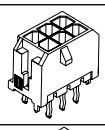
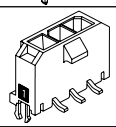
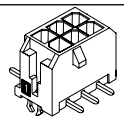
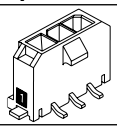
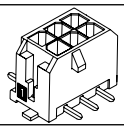
Crimp Housings

Receptacles (Use with 43030 terminals)				Plugs (Use with 43031 terminals)			
	Description	Order No.	Material		Description	Order No.	Material
	Single Row	43645-XX00	Black Polyester		Single Row Free Hanging	43640-XX01	Black Polyester
					Single Row Panel Mount	43640-XX00	
	Dual Row	43025-XX00	Black Polyester		Dual Row Free Hanging	43020-XX01	Black Polyester
					Dual Row Panel Mount	43020-XX00	

Right Angle Headers

Single Row	Description	Order No.	Plating	Material	Dual Row	Description	Order No.	Plating	Material
	Surface Mount Compatible with Pegs	43650-XX00	Tin	High Temperature, Black LCP		Surface Mount Compatible with Pegs	43045-XX00	Tin	High Temperature, Black LCP
		43650-XX01	15µ" Gold				43045-XX01	15µ" Gold	
		43650-XX02	30µ" Gold				43045-XX02	30µ" Gold	
	SMT with Solderable Retention Clip	43650-XX09	Tin	High Temperature, Black LCP		SMT with Solderable Retention Clip	43045-XX06	Tin	High Temperature, Black LCP
		43650-XX10	15µ" Gold				43045-XX07	15µ" Gold	
		43650-XX11	30µ" Gold				43045-XX08	30µ" Gold	
	SMT with Solder Tabs	43650-XX12	Tin	High Temperature, Black LCP		SMT with Solder Tabs	43045-XX09	Tin	High Temperature, Black LCP
		43650-XX13	15µ" Gold				43045-XX10	15µ" Gold	
		43650-XX14	30µ" Gold				43045-XX11	30µ" Gold	

Vertical Headers

Single Row	Description	Order No.	Plating	Material	Dual Row	Description	Order No.	Plating	Material
	Surface Mount Compatible with Pegs	43650-XX15	Tin	High Temperature, Black LCP		Surface Mount Compatible with Pegs	43045-XX12	Tin	High Temperature, Black LCP
		43650-XX16	15µ" Gold				43045-XX13	15µ" Gold	
		43650-XX17	30µ" Gold				43045-XX14	30µ" Gold	
	SMT with Solderable Retention Clip	43650-XX21	Tin	High Temperature, Black LCP		SMT with Solderable Retention Clip	43045-XX15	Tin	High Temperature, Black LCP
		43650-XX22	15µ" Gold				43045-XX16	15µ" Gold	
		43650-XX23	30µ" Gold				43045-XX17	30µ" Gold	
	SMT with Solder Tabs	43650-XX24	Tin	High Temperature, Black LCP		SMT with Solder Tabs	43045-XX18	Tin	High Temperature, Black LCP
		43650-XX25	15µ" Gold				43045-XX19	15µ" Gold	
		43650-XX26	30µ" Gold				43045-XX20	30µ" Gold	

Replace XX with number of circuits, 02 to 24

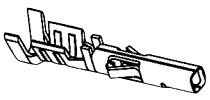
3.00mm (.118") Pitch Micro-Fit 3.0™ Family

Micro-Fit 3.0

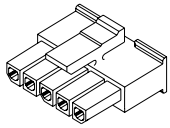
The Micro-Fit 3.0 is a unique connector system that incorporates many of the feaures previously found only on large power connectors. These connectors are the perfect choice when you need compact connectors that can carry up to 5.0A of current.

Micro-Fit 3.0 is available in circuit sizes 2 to 24 AWG for wire-to-board and wire-to-wire applications. With more than 500 part numbers and still growing, this expansive product line offers through hole and SMT options. SMT versions are available in tape and reel packaging for robotic placement in the PCB.

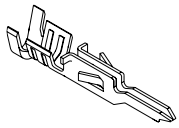
Wire-to-Wire Single Row Connector System


Female Terminal
43030

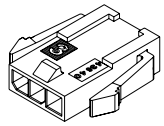
and


Receptacle 43645

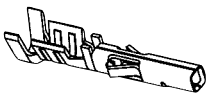
Mate to:


Male Terminal
43031

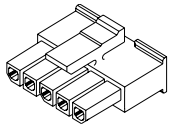
and


Plug 43640

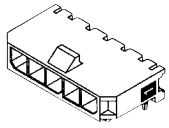
Wire-to-Board Single Row Connector System


Female Terminal
43030

and


Receptacle 43645

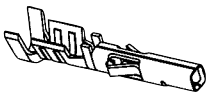
Mate to:


Right Angle SMT with Clips
43650

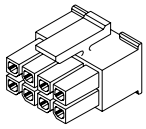
or

Any 43650 Header

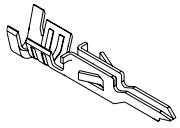
Wire-to-Wire Dual Row Connector System


Female Terminal
43030

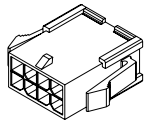
and


Receptacle 43025

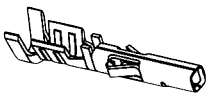
Mate to:


Male Terminal
43031

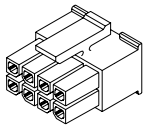
and


Plug 43020

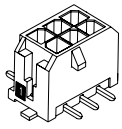
Wire-to-Board Dual Row Connector System


Female Terminal
43030

and


Receptacle 43025

Mate to:


Vertical SMT with Nails
43045

or

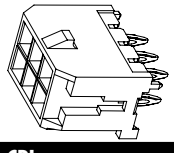
Any 43045
or 44914 Header

Micro-Fit 3.0 CPI and Micro-Fit 3.0 BMI CPI

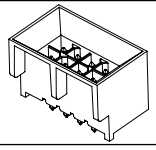
The Micro-Fit 3.0 CPI (Compliant Pin Interface) and Micro-Fit 3.0 BMI CPI (Blind Mate Version with Compliant Pin Interface) are vertical header product extensions featuring press-fit PC tails.

- CPI style press-fit require no soldering to the PCB
- 2.36mm (.093") minimum PCB thickness

Standard CPI

	Description	Order No.	Plating	Material
	Standard Vertical CPC	44914-XX01	Tin	High Temperature, Black LCP
		44914-XX02	12µ" Gold	
		44914-XX03	30µ" Gold	

BMI CPI

	Blind Mate Vertical CPC	45280-XX01	Tin	High Temperature, Black Glass-Filled Nylon
		45280-XX02	12µ" Gold	
		45280-XX03	30µ" Gold	

3.00mm (.118") Pitch Micro-Fit 3.0™ Family

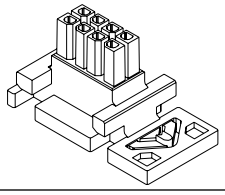
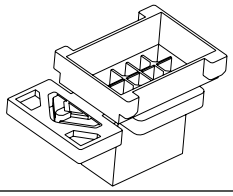
Micro-Fit 3.0 BMI

The Micro-Fit 3.0 BMI (Blind Mate Interface) features an innovative panel mounting design that securely locks the plugs and receptacles in place in the panel cutout, while allowing for removal. The plugs and headers feature a funnel entry to guide the mating receptacle or receptacle header into place. Micro-Fit 3.0, BMI housings and headers mate exclusively with the BMI components shown here.

- Full polarization
- Fully-isolated contacts
- Dual row
- Sizes 4 to 24 circuits
- Up to 5.0A per circuit
- Up to 1500V AC dielectric withstanding voltage
- UL 94V-0, CSA, TUV approved

Crimp Housings

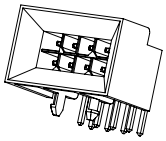
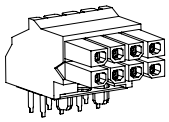
- Use standard Micro-Fit terminals
- Receptacle floats in panel cutout up to 1.27mm (.050") in any direction
- Can be utilized with BMI board-to-board connectors
- Panel Thickness: 1.57mm (.062")

	Description	Order No.	Material
Use with 43030 terminal 	Panel Mount Receptacle	44133-XX00	Black Polyester
Use with 43031 terminal 	Panel Mount Plug	44300-XX00	Black Polyester

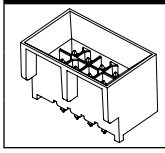
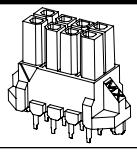
Headers

- Can be utilized with BMI board-to-board connectors
- 1.57mm (.062") PCB Thickness
- Surface mount compatible (SMC)
- Black glass-filled nylon housings

Right Angle

	Description	Order No.	Plating		Description	Order No.	Plating
	Right Angle Header with Pegs	44428-XX01	Tin		Right Angle Receptacle Header	44764-XX01	Tin
		44428-XX02	15µ" Gold			44764-XX02	15µ" Gold
		44428-XX03	30µ" Gold			44764-XX03	30µ" Gold

Vertical

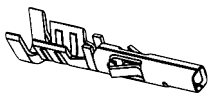
	Vertical Header with Pegs	44432-XX01	Tin		Vertical Receptacle Header	44769-XX01	Tin
		44432-XX02	15µ" Gold			44769-XX02	15µ" Gold
		44432-XX03	30µ" Gold			44769-XX03	30µ" Gold

Replace XX with number of circuits, 04 to 24

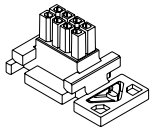
3.00mm (.118") Pitch
Micro-Fit 3.0™ Family

Micro-Fit 3.0 BMI

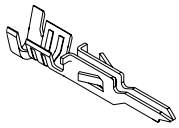
Wire-to-Wire BMI Connector System


Female Terminal 43030

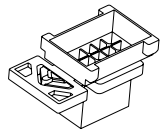
and


Receptacle 44133

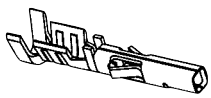
Mate to:


Male Terminal 43031

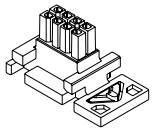
and


Plug 44300

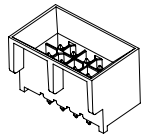
Wire-to-Board BMI Connector System


Female Terminal 43030

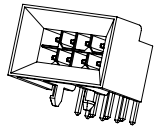
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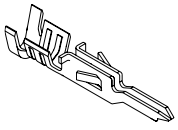

Receptacle 44133

Mate to:

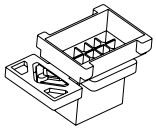

Vertical 44432/45280

or

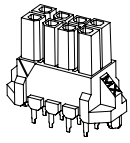

Right Angle 44428


Male Terminal 43031

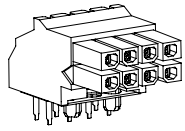
and


Plug 44300

Mate to:

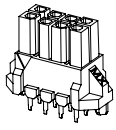

Vertical 44769

or

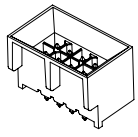

Right Angle 44764

Board-to-Board Dual Row Connector System

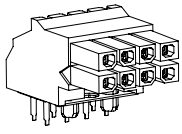
Horizontal Boards


Vertical 44769

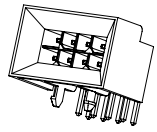
Mate to:


Vertical 44432/45280

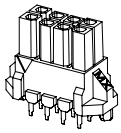
Coplanar Boards


Vertical 44764

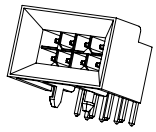
Mate to:


Right Angle 44428

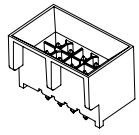
Right Angle Boards


Vertical 44769

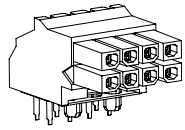
Mate to:


Right Angle 44428

OR

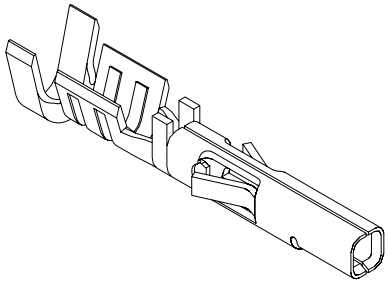

Vertical 44432/45280

Mate to:


Right Angle 44764

3.00mm (.118") Pitch Micro-Fit 3.0™ Terminal

43030
Female



Features and Benefits
- 4 points of contact for optimum reliability
- Box-type spring contact for high normal force
- Locking tang secures terminal in housing

Reference Information
Product Specification: PS-43045/PS-43650
Packaging: Bag or reel
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R72040445
Use With: 43025, 43645 and 44133 receptacles
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.

Mechanical
Contact Insertion Force: 1.5kgf max. (3.30 lb)
Contact Retention to Housing: 2.5kgf min. (5.50 lb)
Crimping Pull-Out Force:

Wire Gauge (AWG)	Kgf min. (lb)
20	5.8 (13.0)
22	3.6 (8.0)
24	2.2 (5.0)
26	1.3 (3.0)
28	0.9 (2.0)
30	0.7 (1.5)

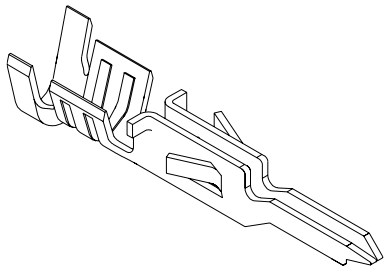
Mating Force: 0.8kgf max. (1.8 lb) per contact
Normal Force: 275gf max. (0.6 lb)

Physical
Contact: Phosphor Bronze
Plating: Tin or Gold

Wire Size AWG	Plating	Order No.		Lead-free
		Reel	Bag	
20-24	Tin	43030-0001	43030-0007	Yes
26-30		43030-0004	43030-0010	
20-24	15µ" Gold	43030-0002	43030-0008	
26-30		43030-0005	43030-0011	
20-24	30µ" Gold	43030-0003	43030-0009	
26-30		43030-0006	43030-0012	

3.00mm (.118") Pitch Micro-Fit 3.0™ Terminal

43031
Male



Features and Benefits
- Box-type spring contact for high normal force
- Locking tang secures terminal in housing

Reference Information
Product Specification: PS-43045/PS-43650
Packaging: Bag or reel
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R72040445
Use With: 43020, 43640 and 44300 plugs
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.

Mechanical
Contact Insertion Force: 1.5kgf max. (3.30 lb)
Contact Retention to Housing: 2.5kgf min. (5.50 lb)
Crimping Pull-Out Force:

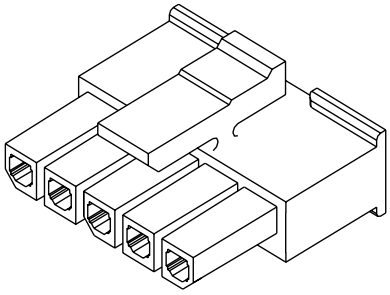
Wire Gauge	Kgf min. (lb)
20	5.8 (13.0)
22	3.6 (8.0)
24	2.2 (5.0)
26	1.3 (3.0)
28	0.9 (2.0)
30	0.7 (1.5)

Physical
Contact: Phosphor Bronze
Plating: Tin or Gold

Wire Size AWG	Plating	Order No.		Lead-free
		Reel	Bag	
20-24	Tin	43031-0001	43031-0007	Yes
26-30		43031-0004	43031-0010	
20-24	15µ" Gold	43031-0002	43031-0008	
26-30		43031-0005	43031-0011	
20-24	30µ" Gold	43031-0003	43031-0009	
26-30		43031-0006	43031-0012	

3.00mm (.118") Pitch Micro-Fit 3.0™ Wire-to-Wire Receptacle

43645
Single Row



Features and Benefits
- Positive latching to mating headers or plugs
- Fully isolated contacts
- Fully polarized to mating headers and plugs
- Integral pull tabs for ease in unmating

Reference Information
Product Specification: PS-43650
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R72040445
Mates With: 43640 and 43650
Use With: 43030
Designed In: Millimeters

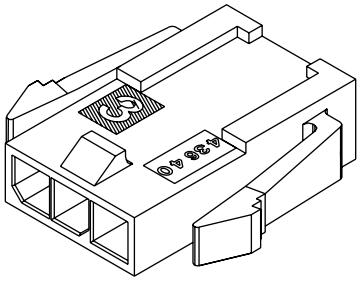
Physical
Housing: Polyester, UL 94V-0

Circuits	Order No.
2	43645-0200
3	43645-0300
4	43645-0400
5	43645-0500
6	43645-0600
7	43645-0700

Circuits	Order No.
8	43645-0800
9	43645-0900
10	43645-1000
11	43645-1100
12	43645-1200

3.00mm (.118") Pitch Micro-Fit 3.0™ Wire-to-Wire Plug

43640
Single Row, with or without Panel Mount Ears



Features and Benefits
- Fully isolated contacts
- Fully polarized to mating receptacle
- Integral pull tabs for ease in unmating
- Optional panel mount ears

Reference Information
Product Specification: PS-43650
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R72040445
Mates With: 43645
Use With: 43031
Designed In: Millimeters

Physical
Housing: Polyester, UL 94V-0

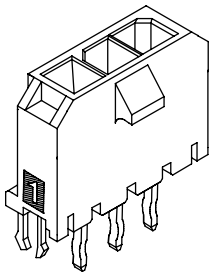
Circuits	Order No.	
	Panel Mount	Free Hanging
2	43640-0200	43640-0201
3	43640-0300	43640-0301
4	43640-0400	43640-0401
5	43640-0500	43640-0501
6	43640-0600	43640-0601
7	43640-0700	43640-0701

Circuits	Order No.	
	Panel Mount	Free Hanging
8	43640-0800	43640-0801
9	43640-0900	43640-0901
10	43640-1000	43640-1001
11	43640-1100	43640-1101
12	43640-1200	43640-1201

3.00mm (.118") Pitch Micro-Fit 3.0™ Wire-to-Board Header

43650

Single Row, Vertical With Solderable Retention Clip



Features and Benefits

- Offset terminal retention for optimum retention to PC board during wave soldering
- Fully polarized to mating receptacle
- Solderable retention clip provides optimum retention to PCB
- Surface Mount Compatible

Reference Information

Product Specification: PS-43650
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980A
TUV License No.: R72040445
Mates With: 43645
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 1000 Megohms min.

Physical

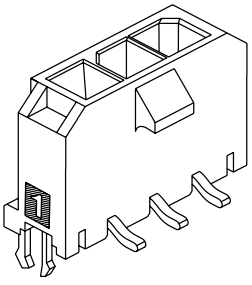
Housing: LCP, UL 94V-0
Contact: Brass
Plating: Tin or Gold

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
2	43650-0218	43650-0219	43650-0220	Yes
3	43650-0318	43650-0319	43650-0320	
4	43650-0418	43650-0419	43650-0420	
5	43650-0518	43650-0519	43650-0520	
6	43650-0618	43650-0619	43650-0620	
7	43650-0718	43650-0719	43650-0720	
8	43650-0818	43650-0819	43650-0820	
9	43650-0918	43650-0919	43650-0920	
10	43650-1018	43650-1019	43650-1020	
11	43650-1118	43650-1119	43650-1120	
12	43650-1218	43650-1219	43650-1220	

3.00mm (.118") Pitch Micro-Fit 3.0™ Wire-to-Board Header

43650

Single Row, Vertical, SMT With Solderable Retention Clip



Features and Benefits

- Solderable retention clip provides optimum retention to PCB
- Fully polarized to mating receptacle
- Tape and reel packaging eliminates handling and provides for higher insertion speeds compared to tray packing or hand assembly

Reference Information

Product Specification: PS-43650
Packaging: Tape and reel
UL File No.: E29179
CSA File No.: LR19980A
TUV License No.: R72040445
Mates With: 43645
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 1000 Megohms min.

Physical

Housing: High temperature LCP, UL 94V-0
Contact: Brass
Plating: Tin or Gold

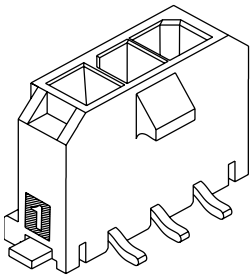
Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
2	43650-0221	43650-0222	43650-0223	Yes
3	43650-0321	43650-0322	43650-0323	
4	43650-0421	43650-0422	43650-0423	
5	43650-0521	43650-0522	43650-0523	
6	43650-0621	43650-0622	43650-0623	
7	43650-0721	43650-0722	43650-0723	

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
8	43650-0821	43650-0822	43650-0823	Yes
9	43650-0921	43650-0922	43650-0923	
10	43650-1021	43650-1022	43650-1023	
11	43650-1121	43650-1122	43650-1123	
12	43650-1221	43650-1222	43650-1223	

3.00mm (.118") Pitch Micro-Fit 3.0™ Wire-to-Board Header

43650

Single Row, Vertical, SMT With Solderable Fitting Nail



Features and Benefits

- Solder tabs provide retention to PCB
- Fully polarized to mating receptacle
- Tape and reel packaging eliminates handling and provides for higher insertion speeds compared to tray packing or hand assembly

Reference Information

Product Specification: PS-43650
Packaging: Tape and reel
UL File No.: E29179
CSA File No.: LR19980A
TUV License No.: R72040445
Mates With: 43645
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 1000 Megohms min.

Physical

Housing: High temperature LCP, UL 94V-0
Contact: Brass
Plating: Tin or Gold

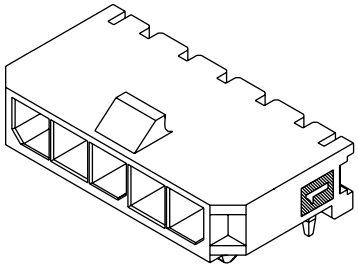
Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
2	43650-0224	43650-0225	43650-0226	Yes
3	43650-0324	43650-0325	43650-0326	
4	43650-0424	43650-0425	43650-0426	
5	43650-0524	43650-0525	43650-0526	
6	43650-0624	43650-0625	43650-0626	
7	43650-0724	43650-0725	43650-0726	

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
8	43650-0824	43650-0825	43650-0826	Yes
9	43650-0924	43650-0925	43650-0926	
10	43650-1024	43650-1025	43650-1026	
11	43650-1124	43650-1125	43650-1126	
12	43650-1224	43650-1225	43650-1226	

3.00mm (.118") Pitch Micro-Fit 3.0™ Wire-to-Board Header

43650

Single Row Right Angle



Features and Benefits

- Snap-in peg locks header to PCB for optimum retention
- Fully polarized to mating receptacle
- Surface Mount Compatible

Reference Information

Product Specification: PS-43650
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R72040445
Mates With: 43645
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 1000 Megohms min.

Physical

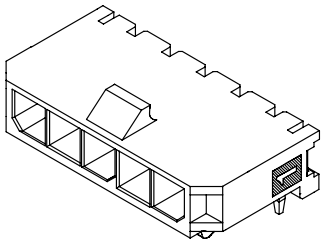
Housing: High temperature LCP, UL 94V-0
Contact: Brass
Plating: Tin or Gold

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
2	43650-0200	43650-0201	43650-0202	Yes
3	43650-0300	43650-0301	43650-0302	
4	43650-0400	43650-0401	43650-0402	
5	43650-0500	43650-0501	43650-0502	
6	43650-0600	43650-0601	43650-0602	
7	43650-0700	43650-0701	43650-0702	

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
8	43650-0800	43650-0801	43650-0802	Yes
9	43650-0900	43650-0901	43650-0902	
10	43650-1000	43650-1001	43650-1002	
11	43650-1100	43650-1101	43650-1102	
12	43650-1200	43650-1201	43650-1202	

3.00mm (.118") Pitch Micro-Fit 3.0™ Wire-to-Board Header

43650
Single Row Right Angle



Features and Benefits
- "Offset Terminal Retention" for optimum retention to PC board during wave soldering
- Fully polarized to mating receptacle
- Peg feature provides polarization to PCB
- Surface Mount Compatible

Reference Information
Product Specification: PS-43650
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R72040445
Mates With: 43645
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 1000 Megohms min.

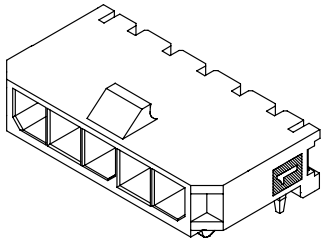
Mechanical
Insertion Force to PCB: 7.5kgf max. (16.5 lb)

Physical
Housing: High temperature LCP, UL 94V-0
Contact: Brass
Plating: Tin or Gold

Circuits	Order No.						Lead-free
	Standard "OTR" Version			Straight Tail Version			
	Tin	15µ" Gold	30µ" Gold	Tin	15µ" Gold	30µ" Gold	
2	43650-0215	43650-0216	43650-0217	43650-0227	43650-0228	43650-0229	Yes
3	43650-0315	43650-0316	43650-0317	43650-0327	43650-0328	43650-0329	
4	43650-0415	43650-0416	43650-0417	43650-0427	43650-0428	43650-0429	
5	43650-0515	43650-0516	43650-0517	43650-0527	43650-0528	43650-0529	
6	43650-0615	43650-0616	43650-0617	43650-0627	43650-0628	43650-0629	
7	43650-0715	43650-0716	43650-0717	43650-0727	43650-0728	43650-0729	
8	43650-0815	43650-0816	43650-0817	43650-0827	43650-0828	43650-0829	
9	43650-0915	43650-0916	43650-0917	43650-0927	43650-0928	43650-0929	
10	43650-1015	43650-1016	43650-1017	43650-1027	43650-1028	43650-1029	
11	43650-1115	43650-1116	43650-1117	43650-1127	43650-1128	43650-1129	
12	43650-1215	43650-1216	43650-1217	43650-1227	43650-1228	43650-1229	

3.00mm (.103") Pitch Micro-Fit 3.0™ Wire-to-Board Header

43650
Single Row, Right Angle With Solderable Retention Clip



Features and Benefits
- Solderable clip provides optimum retention to PCB
- Fully polarized to mating receptacle
- Surface Mount Compatible

Reference Information
Product Specification: PS-43650
Packaging: Tray
UL File No.: E29179
CSA File No.: LR04980A
TUV License No.: R72040445
Mates With: 43645
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Insertion Force to PCB: 7.5kgf max. (16.5 lb)

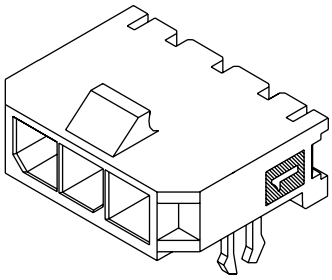
Physical
Housing: High temperature LCP, UL 94V-0
Contact: Brass
Plating: Tin or Gold

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
2	43650-0203	43650-0204	43650-0205	Yes
3	43650-0303	43650-0304	43650-0305	
4	43650-0403	43650-0404	43650-0405	
5	43650-0503	43650-0504	43650-0505	
6	43650-0603	43650-0604	43650-0605	
7	43650-0703	43650-0704	43650-0705	
8	43650-0803	43650-0804	43650-0805	
9	43650-0903	43650-0904	43650-0905	
10	43650-1003	43650-1004	43650-1005	
11	43650-1103	43650-1104	43650-1105	
12	43650-1203	43650-1204	43650-1205	

3.00mm (.118") Pitch Micro-Fit 3.0™ Wire-to-Board Header

43650

Single Row, Right Angle, SMT With Solderable Retention Clip



Features and Benefits

- Solderable retention clip provides optimum retention to PCB
- Fully polarized to mating receptacle
- Tape and reel packaging eliminates handling and provides higher insertion speed compared to tray packing or hand assembly

Reference Information

Product Specification: PS-43650
Packaging: Tape and reel
UL File No.: E29179
CSA File No.: LR19980A
TUV License No.: R72040445
Mates With: 43645
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Insertion Force to PCB: 7.5kgf max. (16.5 lb)

Physical

Housing: High temperature LCP, UL 94V-0
Contact: Brass
Plating: Tin or Gold

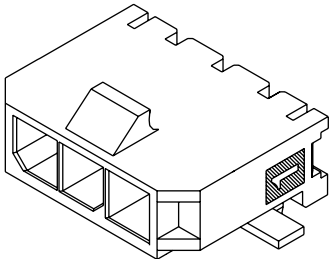
Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
2	43650-0209	43650-0210	43650-0211	Yes
3	43650-0309	43650-0310	43650-0311	
4	43650-0409	43650-0410	43650-0411	
5	43650-0509	43650-0510	43650-0511	
6	43650-0609	43650-0610	43650-0611	
7	43650-0709	43650-0710	43650-0711	

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
8	43650-0809	43650-0810	43650-0811	Yes
9	43650-0909	43650-0910	43650-0911	
10	43650-1009	43650-1010	43650-1011	
11	43650-1109	43650-1110	43650-1111	
12	43650-1209	43650-1210	43650-1211	

3.00mm (.118") Pitch Micro-Fit 3.0™ Wire-to-Board Header

43650

Single Row, Right Angle, SMT With Solderable Fitting Nail



Features and Benefits

- Solder tabs provide retention to PCB
- Fully polarized to mating receptacle
- Tape and reel packaging eliminates handling and provides higher insertion speeds compared to tray packing or hand assembly

Reference Information

Product Specification: PS-43650
Packaging: Tape and reel for robotic placement
UL File No.: E29179
CSA File No.: LR19980A
TUV License No.: R72040445
Mates With: 43645
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 1000 Megohms min.

Physical

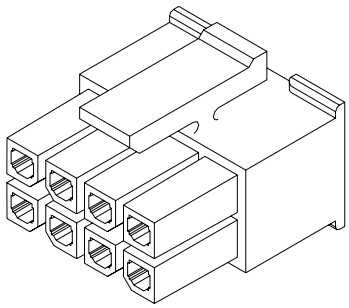
Housing: High temperature LCP, UL 94V-0
Contact: Brass
Plating: Tin or Gold

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
2	43650-0212	43650-0213	43650-0214	Yes
3	43650-0312	43650-0313	43650-0314	
4	43650-0412	43650-0413	43650-0414	
5	43650-0512	43650-0513	43650-0514	
6	43650-0612	43650-0613	43650-0614	
7	43650-0712	43650-0713	43650-0714	

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
8	43650-0812	43650-0813	43650-0814	Yes
9	43650-0912	43650-0913	43650-0914	
10	43650-1012	43650-1013	43650-1014	
11	43650-1112	43650-1113	43650-1114	
12	43650-1212	43650-1213	43650-1214	

3.00mm (.118") Pitch Micro-Fit 3.0™ Wire-to-Wire Receptacle

43025
Dual Row



Features and Benefits
- Positive latching to mating headers or plugs
- Fully isolated contacts
- Fully polarized to mating headers and plugs
- Integral pull tabs for ease in unmating

Reference Information
Product Specification: PS-43045
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R72040445
Mates With: 43020, 43045 and 44914
Use With: 43030
Designed In: Millimeters

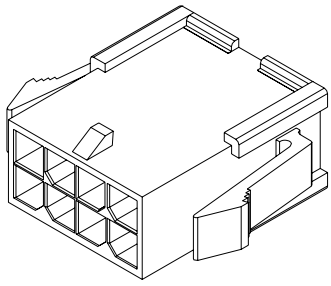
Physical
Housing: Polyester, UL 94V-0

Circuits	Order No.
2	43025-0200
4	43025-0400
6	43025-0600
8	43025-0800
10	43025-1000
12	43025-1200

Circuits	Order No.
14	43025-1400
16	43025-1600
18	43025-1800
20	43025-2000
22	43025-2200
24	43025-2400

3.00mm (.118") Pitch Micro-Fit 3.0™ Wire-to-Wire Plug

43020
Dual Row, with or without Panel Mount Ears



Features and Benefits
- Fully isolated contacts
- Fully polarized to mating receptacle
- Integral pull tabs for ease in unmating
- Optional panel mount ears

Reference Information
Product Specification: PS-43045
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R72040445
Mates With: 43025
Use With: 43031
Designed In: Millimeters

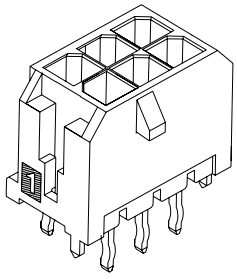
Physical
Housing: Polyester, UL 94V-0

Circuits	Order No.	
	Panel Mount	Free Hanging
2	43020-0200	43020-0201
4	43020-0400	43020-0401
6	43020-0600	43020-0601
8	43020-0800	43020-0801
10	43020-1000	43020-1001
12	43020-1200	43020-1201

Circuits	Order No.	
	Panel Mount	Free Hanging
14	43020-1400	43020-1401
16	43020-1600	43020-1601
18	43020-1800	43020-1801
20	43020-2000	43020-2001
22	43020-2200	43020-2201
24	43020-2400	43020-2401

3.00mm (.118") Pitch Micro-Fit 3.0™ Wire-to-Board Header

43045
Dual Row Vertical



Features and Benefits
- "Offset Terminal Retention" for optimum retention to PC board during wave soldering
- Fully polarized to mating receptacle
- Peg feature provides polarization to PCB
- Surface Mount Compatible

Reference Information
Product Specification: PS-43045
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R72040445
Mates With: 43025
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 1000 Megohms min.

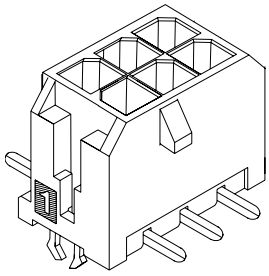
Mechanical
Insertion Force to PCB: 7.5kgf max. (16.5 lb)

Physical
Housing: High temperature LCP, UL 94V-0
Contact: Brass
Plating: Tin or Gold

Circuits	Order No.						Lead-free
	Standard "OTR" Version			Straight Tail Version			
	Tin	15µ" Gold	30µ" Gold	Tin	15µ" Gold	30µ" Gold	
2	43045-0212	43045-0213	43045-0214	43045-0227	43045-0228	43045-0229	Yes
4	43045-0412	43045-0413	43045-0414	43045-0427	43045-0428	43045-0429	
6	43045-0612	43045-0613	43045-0614	43045-0627	43045-0628	43045-0629	
8	43045-0812	43045-0813	43045-0814	43045-0827	43045-0828	43045-0829	
10	43045-1012	43045-1013	43045-1014	43045-1027	43045-1028	43045-1029	
12	43045-1212	43045-1213	43045-1214	43045-1227	43045-1228	43045-1229	
14	43045-1412	43045-1413	43045-1414	43045-1427	43045-1428	43045-1429	
16	43045-1612	43045-1613	43045-1614	43045-1627	43045-1628	43045-1629	
18	43045-1812	43045-1813	43045-1814	43045-1827	43045-1828	43045-1829	
20	43045-2012	43045-2013	43045-2014	43045-2027	43045-2028	43045-2029	
22	43045-2212	43045-2213	43045-2214	43045-2227	43045-2228	43045-2229	
24	43045-2412	43045-2413	43045-2414	43045-2427	43045-2428	43045-2429	

3.00mm (.118") Micro-Fit 3.0™ Wire-to-Board Header

43045
Dual Row, Vertical, SMT With Solderable Retention Clip



Features and Benefits
- Solderable retention clip provides optimum retention to PCB
- Fully polarized to mating receptacle
- Tape and reel packaging eliminates handling and provides for higher insertion speeds compared to tray packing or hand assembly

Reference Information
Product Specification: PS-43045
Packaging: Tape and reel
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R72040445
Mates With: 43025
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Insertion Force to PCB: 7.5kgf max. (16.5 lb)

Physical
Housing: High temperature LCP, UL 94V-0
Contact: Brass
Plating: Tin or Gold

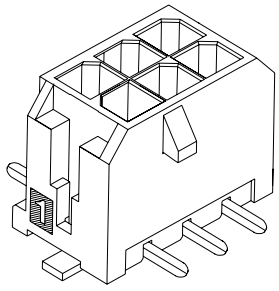
Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
2	43045-0215	43045-0216	43045-0217	Yes
4	43045-0415	43045-0416	43045-0417	
6	43045-0615	43045-0616	43045-0617	
8	43045-0815	43045-0816	43045-0817	
10	43045-1015	43045-1016	43045-1017	
12	43045-1215	43045-1216	43045-1217	

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
14	43045-1415	43045-1416	43045-1417	Yes
16	43045-1615	43045-1616	43045-1617	
18	43045-1815	43045-1816	43045-1817	
20	43045-2015	43045-2016	43045-2017	
22	43045-2215	43045-2216	43045-2217	
24	43045-2415	43045-2416	43045-2417	

3.00mm (.118") Pitch Micro-Fit 3.0™ Wire-to-Board Header

43045

Dual Row, Vertical, SMT With Solderable Fitting Nail



Features and Benefits

- Solder tabs provide retention to PCB
- Fully polarized to mating receptacle
- Tape and reel packaging eliminates handling and provides for higher PCB board placement speeds compared to tray packing or hand assembly

Reference Information

Product Specification: PS-43045
Packaging: Tape and reel
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R72040445
Mates With: 43025
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 1000 Megohms min.

Physical

Housing: High temperature LCP, UL 94V-0
Contact: Brass
Plating: Tin or Gold

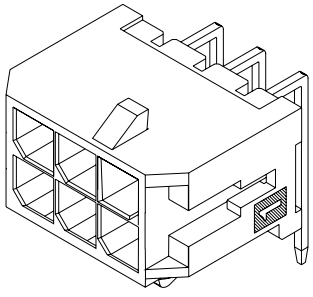
Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
2	43045-0218	43045-0219	43045-0220	Yes
4	43045-0418	43045-0419	43045-0420	
6	43045-0618	43045-0619	43045-0620	
8	43045-0818	43045-0819	43045-0820	
10	43045-1018	43045-1019	43045-1020	
12	43045-1218	43045-1219	43045-1220	

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
14	43045-1418	43045-1419	43045-1420	Yes
16	43045-1618	43045-1619	43045-1620	
18	43045-1818	43045-1819	43045-1820	
20	43045-2018	43045-2019	43045-2020	
22	43045-2218	43045-2219	43045-2220	
24	43045-2418	43045-2419	43045-2420	

3.00mm (.118") Pitch Micro-Fit 3.0™ Wire-to-Board Header

43045

Dual Row Right Angle



Features and Benefits

- Snap-in peg locks header to PCB for optimum retention
- Fully polarized to mating receptacle
- Surface Mount Compatible

Reference Information

Product Specification: PS-43045
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R72040445
Mates With: 43025
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Insertion Force to PCB: 7.5kgf max. (16.5 lb)

Physical

Housing: High temperature LCP, UL 94V-0
Contact: Brass
Plating: Tin or Gold

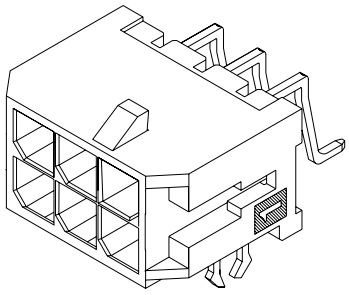
Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
2	43045-0200	43045-0201	43045-0202	Yes
4	43045-0400	43045-0401	43045-0402	
6	43045-0600	43045-0601	43045-0602	
8	43045-0800	43045-0801	43045-0802	
10	43045-1000	43045-1001	43045-1002	
12	43045-1200	43045-1201	43045-1202	

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
14	43045-1400	43045-1401	43045-1402	Yes
16	43045-1600	43045-1601	43045-1602	
18	43045-1800	43045-1801	43045-1802	
20	43045-2000	43045-2001	43045-2002	
22	43045-2200	43045-2201	43045-2202	
24	43045-2400	43045-2401	43045-2402	

3.00mm (.118") Pitch Micro-Fit 3.0™ Wire-to-Board Header

43045

Dual Row, Right Angle, SMT With Solderable Retention Clip



Features and Benefits

- Solderable retention clip provides optimum retention to PCB
- Fully polarized to mating receptacle
- Tape and reel packaging eliminates handling and provides higher insertion speed compared to tray packing or hand assembly

Reference Information

Product Specification: PS-43045
Packaging: Tape and reel
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R72040445
Mates With: 43025
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Insertion Force to PCB: 7.5kgf max. (16.5 lb)

Physical

Housing: High temperature LCP, UL 94V-0
Contact: Brass
Plating: Tin or Gold

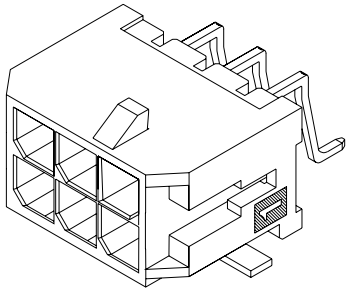
Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
2	43045-0206	43045-0207	43045-0208	Yes
4	43045-0406	43045-0407	43045-0408	
6	43045-0606	43045-0607	43045-0608	
8	43045-0806	43045-0807	43045-0808	
10	43045-1006	43045-1007	43045-1008	
12	43045-1206	43045-1207	43045-1208	

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
14	43045-1406	43045-1407	43045-1408	Yes
16	43045-1606	43045-1607	43045-1608	
18	43045-1806	43045-1807	43045-1808	
20	43045-2006	43045-2007	43045-2008	
22	43045-2206	43045-2207	43045-2208	
24	43045-2406	43045-2407	43045-2408	

3.00mm (.118") Pitch Micro-Fit 3.0™ Wire-to-Board Header

43045

Dual Row, Right Angle, SMT With Solderable Fitting Nail



Features and Benefits

- Solder tabs provide retention to PCB
- Fully polarized to mating receptacle
- Tape and reel packaging eliminates handling and provides higher insertion speeds compared to tray packing or hand assembly

Reference Information

Product Specification: PS-43045
Packaging: Tape and reel
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R72040445
Mates With: 43025
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 1000 Megohms min.

Physical

Housing: High temperature LCP, UL 94V-0
Contact: Brass
Plating: Tin or Gold

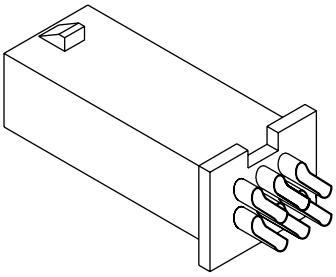
Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
2	43045-0209	43045-0210	43045-0211	Yes
4	43045-0409	43045-0410	43045-0411	
6	43045-0609	43045-0610	43045-0611	
8	43045-0809	43045-0810	43045-0811	
10	43045-1009	43045-1010	43045-1011	
12	43045-1209	43045-1210	43045-1211	

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
14	43045-1409	43045-1410	43045-1411	Yes
16	43045-1609	43045-1610	43045-1611	
18	43045-1809	43045-1810	43045-1811	
20	43045-2009	43045-2010	43045-2011	
22	43045-2209	43045-2210	43045-2211	
24	43045-2409	43045-2410	43045-2411	

3.00mm (.118") Pitch Micro-Fit 3.0™ Test Plug

44242

Dual Row



Features and Benefits

- Rated for 10,000 mating cycles
- Minimal expense and downtime for test plug replacement
- Gold-plated, beryllium copper contacts are precision made for long life
- To be used for continuity testing only*
- Micro-Fit dual row sizes available for every application: 4 to 24 circuits**
- Mismating prevented because plug is fully polarized to mating receptacle

Reference Information

Product Specification: PS-43045
Packaging: Box
Mates With: 43025, 43645 and 44133
Designed In: Inches

Electrical

Current: 2.5A max.
Contact Resistance: 35 milliohms max.

Mechanical

Contact Retention to Housing: 5.0kgf
Durability: 10,000 cycles

Physical

Housing: Black LCP, UL 94V-0
Contact: Heat-treated Beryllium Copper
Plating: Gold over hard Nickel

Circuits	Order No.	Lead-free
4	44242-0001	Yes
6	44242-0002	
8	44242-0003	
10	44242-0004	
12	44242-0005	
14	44242-0006	

Circuits	Order No.	Lead-free
16	44242-0007	Yes
18	44242-0008	
20	44242-0009	
22	44242-0010	
24	44242-0011	

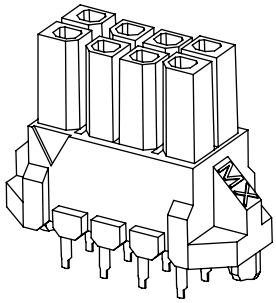
* Important: Micro-Fit test headers cannot be mated or unmated under load. All current must be shut off prior to mating or unmating.

**To test single row receptacles (43645), use test plugs which have twice as many circuits as the receptacles to be tested.

3.00mm (.118") Pitch Micro-Fit 3.0 BMI™ Board-to-Board and Wire-to-Board Receptacle Header

44769

Dual Row, Vertical



Features and Benefits

- 4 to 24 circuits for design flexibility
- Fully isolated contacts prevent terminal damage
- Fully polarized to prevent mismating

Reference Information

Product Specification: PS-44300
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980A
TUV File No.: R72040445
Mates With: 44300, 44428, 44432 and 45280
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC

Mechanical

Insertion Force to PCB: 7.5kgf max. (16.5 lb)
Durability: 30 cycles

Physical

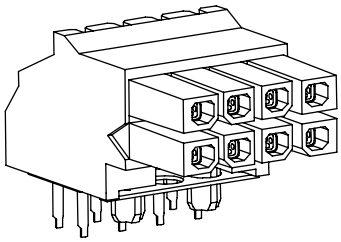
Housing: Glass-filled nylon, UL 94V-0
Contact: Brass
Plating: Contact Area—Tin or Gold
Solder Tail Area—Tin
Underplating—Nickel
PCB Thickness: 1.57mm (.062")

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
4	44769-0401	44769-0402	44769-0403	Yes
6	44769-0601	44769-0602	44769-0603	
8	44769-0801	44769-0802	44769-0803	
10	44769-1001	44769-1002	44769-1003	
12	44769-1201	44769-1202	44769-1203	
14	44769-1401	44769-1402	44769-1403	
16	44769-1601	44769-1602	44769-1603	
18	44769-1801	44769-1802	44769-1803	
20	44769-2001	44769-2002	44769-2003	
22	44769-2201	44769-2202	44769-2203	
24	44769-2401	44769-2402	44769-2403	

3.00mm (.118") Pitch Micro-Fit 3.0 BMI™ Board-to-Board and Wire-to-Board Receptacle Header

44764

Dual Row, Right Angle



Features and Benefits
- 4 to 24 circuits for design flexibility
- Fully isolated contacts prevent terminal damage
- Fully polarized to prevent mismating

Reference Information
Product Specification: PS-44300
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980A
TUV File No.: R72040445
Mates With: 44300, 44428, 44432 and 45280
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC

Mechanical
Insertion Force to PCB: 7.5kgf max. (16.5 lb)
Durability: 30 cycles

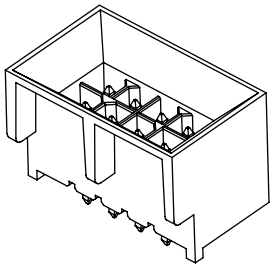
Physical
Housing: Glass-filled nylon, UL 94V-0
Contact: Brass
Plating: Contact Area—Tin or Gold
Solder Tail Area—Tin
Underplating—Nickel
PCB Thickness: 1.57mm (.062")

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
4	44764-0401	44764-0402	44764-0403	Yes
6	44764-0601	44764-0602	44764-0603	
8	44764-0801	44764-0802	44764-0803	
10	44764-1001	44764-1002	44764-1003	
12	44764-1201	44764-1202	44764-1203	
14	44764-1401	44764-1402	44764-1403	
16	44764-1601	44764-1602	44764-1603	
18	44764-1801	44764-1802	44764-1803	
20	44764-2001	44764-2002	44764-2003	
22	44764-2201	44764-2202	44764-2203	
24	44764-2401	44764-2402	44764-2403	

3.00mm (.118") Pitch Micro-Fit 3.0 BMI™ Board-to-Board and Wire-to-Board Header

44432

Dual Row, Vertical



Features and Benefits
- 4 to 24 circuits for design flexibility
- Fully isolated contacts prevent terminal damage
- Fully polarized to prevent mismating

Reference Information
Product Specification: PS-44300
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980A
TUV File No.: R72040445
Mates With: 44133, 44764 and 44769
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC

Mechanical
Insertion Force to PCB: 7.5kgf max. (16.5 lb)
Durability: 30 cycles

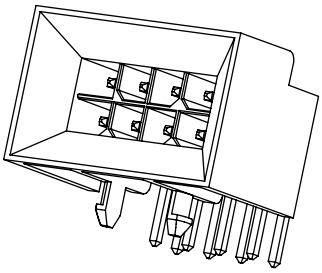
Physical
Housing: Glass-filled nylon, UL 94V-0
Contact: Brass
Plating: Contact Area—Tin or Gold
Solder Tail Area—Tin
Underplating—Nickel
PCB Thickness: 1.57mm (.062")

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
4	44432-0401	44432-0402	44432-0403	Yes
6	44432-0601	44432-0602	44432-0603	
8	44432-0801	44432-0802	44432-0803	
10	44432-1001	44432-1002	44432-1003	
12	44432-1201	44432-1202	44432-1203	
14	44432-1401	44432-1402	44432-1403	
16	44432-1601	44432-1602	44432-1603	
18	44432-1801	44432-1802	44432-1803	
20	44432-2001	44432-2002	44432-2003	
22	44432-2201	44432-2202	44432-2203	
24	44432-2401	44432-2402	44432-2403	

3.00mm (.118") Pitch Micro-Fit 3.0 BMI™ Board-to-Board and Wire-to-Board Header

44428

Dual Row, Right Angle



Features and Benefits

- 4 to 24 circuits for design flexibility
- Fully isolated contacts prevent terminal damage
- Fully polarized to prevent mismating

Reference Information

Product Specification: PS-44300
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980A
TUV File No.: R72040445
Mates With: 44133, 44764 and 44769
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC

Mechanical

Insertion Force to PCB: 7.5kgf max. (16.5 lb)
Durability: 30 cycles

Physical

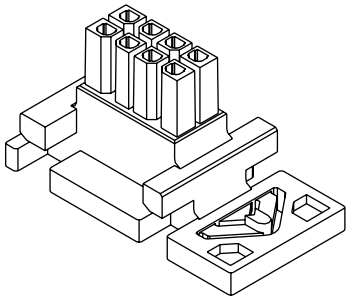
Housing: Glass-filled nylon, UL 94V-0
Contact: Brass
Plating: Contact Area—Tin or Gold
Solder Tail Area—Tin
Underplating—Nickel
PCB Thickness: 1.57mm (.062")

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
4	44428-0401	44428-0402	44428-0403	Yes
6	44428-0601	44428-0602	44428-0603	
8	44428-0801	44428-0802	44428-0803	
10	44428-1001	44428-1002	44428-1003	
12	44428-1201	44428-1202	44428-1203	
14	44428-1401	44428-1402	44428-1403	
16	44428-1601	44428-1602	44428-1603	
18	44428-1801	44428-1802	44428-1803	
20	44428-2001	44428-2002	44428-2003	
22	44428-2201	44428-2202	44428-2203	
24	44428-2401	44428-2402	44428-2403	

3.00mm (.118") Micro-Fit 3.0 BMI™ Panel-to-Panel Receptacle

44133

Dual Row



Features and Benefits

- Receptacle floats in panel cutout up to 1.27mm (.050") in any direction
- 4 to 24 circuits for design flexibility
- Use standard Micro-Fit 3.0 terminals to reduce inventory
- Innovative panel mounting design holds connectors firmly in place
- Fully isolated contacts prevent terminal damage
- Fully polarized to completely prevent mismating

Reference Information

Product Specification: PS-44300
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R72040445
Mates With: 44300, 44428, 44432 and 45280
Use With: 43030
Designed In: Millimeters

Electrical

Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Insertion Force: 14.7N (3.30 lb)
Contact Retention to Housing: 24.5N (5.50 lb)

Physical

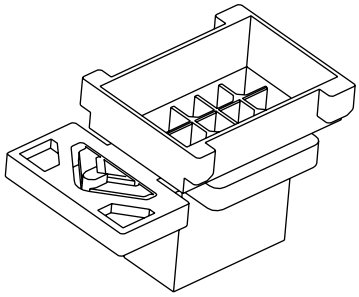
Housing: Polyester, UL 94V-0

Circuits	Order No.
4	44133-0400
6	44133-0600
8	44133-0800
10	44133-1000
12	44133-1200
14	44133-1400

Circuits	Order No.
16	44133-1600
18	44133-1800
20	44133-2000
22	44133-2200
24	44133-2400

3.00mm (.118") Micro-Fit 3.0 BMI™ Panel-to-Panel Plug

44300
Dual Row



Features and Benefits
- 4 to 24 circuits for design flexibility
- Use standard Micro-Fit terminals to reduce inventory
- Innovative panel mounting design holds connectors firmly in place
- Fully isolated contacts prevent terminal damage
- Fully polarized to completely prevent mismating

Reference Information
Product Specification: PS-44300
Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
TUV License No.: R72040445
Mates With: 44133, 44764 and 44769
Use With: 43031
Designed In: Millimeters

Electrical
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Insertion Force: 14.7N (3.30 lb)
Contact Retention to Housing: 24.5N (5.50 lb)

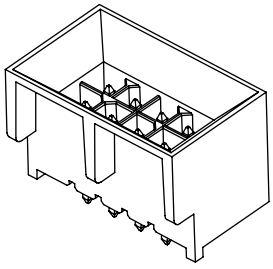
Physical
Housing: Polyester, UL 94V-0

Circuits	Order No.
4	44300-0400
6	44300-0600
8	44300-0800
10	44300-1000
12	44300-1200
14	44300-1400

Circuits	Order No.
16	44300-1600
18	44300-1800
20	44300-2000
22	44300-2200
24	44300-2400

3.00mm (.118") Pitch Micro-Fit BMI CPI™ Board-to-Board and Wire-to-Board Header

45280
Dual Row, Vertical



Features and Benefits
- Solderless board connection
- 4 to 24 circuits for design flexibility
- Fully isolated contacts prevent terminal damage
- Fully polarized to prevent mismating

Reference Information
Product Specification: PS-44300
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980A
TUV File No.: R72040445
Mates With: 44133, 44764 and 44769
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC

Mechanical
Insertion Force to PCB: 10.9kgf max. (24 lbf) per terminal
Retention Force to PCB: 3.6kgf max. (8lbf) per terminal
Durability: 30 cycles

Physical
Housing: Glass-filled nylon, UL 94V-0
Contact: Brass
Plating: Contact Area—Tin or Gold
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 2.34mm (.092") min.

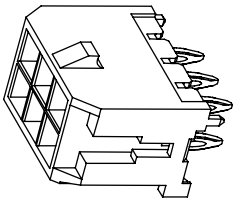
Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
4	45280-0401	45280-0452	45280-0453	Yes
6	45280-0601	45280-0652	45280-0653	
8	45280-0801	45280-0852	45280-0853	
10	45280-1001	45280-1052	45280-1053	
12	45280-1201	45280-1252	45280-1253	
14	45280-1401	45280-1452	45280-1453	
16	45280-1601	45280-1652	45280-1653	
18	45280-1801	45280-1852	45280-1853	
20	45280-2001	45280-2052	45280-2053	
22	45280-2201	45280-2252	45280-2253	
24	45280-2401	45280-2452	45280-2453	

Circuits	Order No.		Lead-free
	15µ" Gold	30µ" Gold	
4	45280-0402	45280-0403	No
6	45280-0602	45280-0603	
8	45280-0802	45280-0803	
10	45280-1002	45280-1003	
12	45280-1202	45280-1203	
14	45280-1402	45280-1403	
16	45280-1602	45280-1603	
18	45280-1802	45280-1803	
20	45280-2002	45280-2003	
22	45280-2202	45280-2203	
24	45280-2402	45280-2403	

3.00mm (.118") Pitch Micro-Fit CPI™ Wire-to-Board Header

44914

Dual Row, Vertical



Features and Benefits

- Solderless board connection
- 2 to 24 circuits for design flexibility
- Fully isolated contacts prevent terminal damage
- Fully polarized to prevent mismating

Reference Information

Product Specification: PS-43045
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980A
TUV File No.: R72040445
Mates With: 43025
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 5.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1500V AC

Mechanical

Insertion Force to PCB: 10.7kgf max. (24 lbf) per terminal
Retention Force to PCB: 3.6kgf max. (8lbf) per terminal
Durability: 30 cycles

Physical

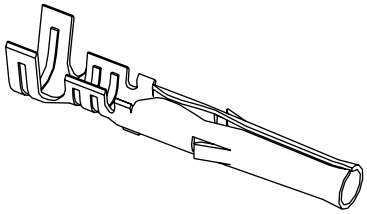
Housing: High-temperature LCP, UL 94V-0
Contact: Brass
Plating: Contact Area—Tin or Gold
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 2.34mm (.092") min.

Circuits	Order No.			Lead-free
	Tin	15µ" Gold	30µ" Gold	
2	44914-0201	44914-5202	44914-5203	Yes
4	44914-0401	44914-5402	44914-5403	
6	44914-0601	44914-5602	44914-5603	
8	44914-0801	44914-5802	44914-5803	
10	44914-1001	44914-6002	44914-6003	
12	44914-1201	44914-6202	44914-6203	
14	44914-1401	44914-6402	44914-6403	
16	44914-1601	44914-6602	44914-6603	
18	44914-1801	44914-6802	44914-6803	
20	44914-2001	44914-7002	44914-7003	
22	44914-2201	44914-7202	44914-7203	
24	44914-2401	44914-7402	44914-7403	

Circuits	Order No.		Lead-free
	15µ" Gold	30µ" Gold	
2	44914-0202	44914-0203	No
4	44914-0402	44914-0403	
6	44914-0602	44914-0603	
8	44914-0802	44914-0803	
10	44914-1002	44914-1003	
12	44914-1202	44914-1203	
14	44914-1402	44914-1403	
16	44914-1602	44914-1603	
18	44914-1802	44914-1803	
20	44914-2002	44914-2003	
22	44914-2202	44914-2203	
24	44914-2402	44914-2403	

1.57mm (.062") Pin Diameter .062" Pin and Socket Female Crimp Terminal

Standard .062"



Features and Benefits
- Circular contact design for simple insertion
- Can be used with plug or receptacle housing
- Accommodates 18 to 30 gauge wire

Reference Information
Product Specification: PS-02-06
UL File No.: E29179
CSA File No.: LR19980

Electrical
Current: 5.0A
Contact Resistance: 3.2 milliohms max.

Mechanical
Mating: 15.75N max.
Mating Cycles: Tin—25 cycles max.
Gold—50 cycles max.

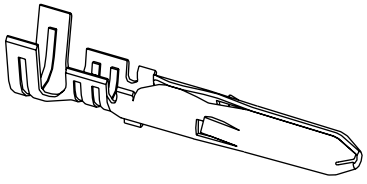
Physical
Contact: Brass or Phosphor Bronze
Plating: Tin, overall Gold or select Gold
Wire Size: See chart and product specification

Type	Plating	Crimp Wire Size	Insulation Diameter	Series	Order No.		Lead-free
					Chain	Loose	
Standard Brass .008"	Tin	18-24	1.52/3.05 (.060/.120)	1561	02-06-1101	02-06-1103	Yes
		24-30	1.02/2.29 (.040/.090)	1855	02-06-1131	02-06-1132	
	15µ" Gold	18-24	1.52/3.05 (.060/.120)	1561	02-06-5100	02-06-5103	
		24-30	1.02/2.29 (.040/.090)	1855	02-06-5130	02-06-5135	
	30µ" Gold	18-24	1.52/3.05 (.060/.120)	1561	02-06-5101	02-06-5102	
		24-30	1.02/2.29 (.040/.090)	1855	02-06-5138	02-06-5139	
	30µ" Gold Contact Tin Crimp	18-24	1.52/3.05 (.060/.120)	1561	02-06-5108	02-06-5109	
		24-30	1.02/2.29 (.040/.090)	1855	02-06-5147	02-06-5148	
Phos-Bronze	Tin .006"	18-24	1.52/3.05 (.060/.120)	4529	02-06-1104	02-06-1105	
	Tin .008"	18-24	1.52/3.05 (.060/.120)	1787	02-06-1201	02-06-1202	
		24-30	1.02/2.29 (.040/.090)	2189	02-06-1231	02-06-1232	
	.006" Gold (15µ")	18-24	1.52/3.05 (.060/.120)	4529	02-06-5207	02-06-5208	
	.008" Gold (15µ")			1787	02-06-5201	02-06-5202	
.008" PC Tail Brass for Standard .062" Housings Only	Tin			1779		02-06-7103	
	30µ" Gold Tin Tail Area			1779		02-06-7104	

Note: .006 Phosphor Bronze stock recommended for versions 15 circuits and larger

1.57mm (.062") Pin Diameter .062" Pin and Socket Male Crimp Terminal

Standard .062"



Features and Benefits
- Circular contact design for simple insertion
- Can be used with plug or receptacle housing
- Accommodates 18 to 30 gauge wire

Reference Information
Product Specification: PS-02-06
UL File No.: E29179
CSA File No.: LR19980

Electrical
Current: 5.0 A
Contact Resistance: 3.2 milliohms max.

Mechanical
Mating Force: 15.57N max.
Mating Cycles: Tin—25 cycles max.
Gold—50 cycles max.

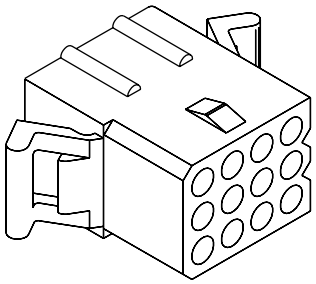
Physical
Contact: Brass or Phosphor Bronze
Plating: Tin or Gold
Wire Size: See chart and product specification

Type	Plating	Crimp Wire Size	Insulation Diameter	Series	Order No.		Lead-free
					Chain	Loose	
Standard Brass .008"	Tin	18-24	1.52/3.05 (.060/.120)	1560	02-06-2101	02-06-2103	Yes
		24-30	1.02/2.29 (.040/.090)	1854	02-06-2131	02-06-2132	
	15µ" Gold	18-24	1.52/3.05 (.060/.120)	1560	02-06-6100	02-06-6103	
		24-30	1.02/2.29 (.040/.090)	1854	02-06-6130	02-06-6135	
	30µ" Gold	18-24	1.52/3.05 (.060/.120)	1560	02-06-6101	02-06-6102	
		24-30	1.02/2.29 (.040/.090)	1854	02-06-6138	02-06-6139	
	30µ" Gold Contact Tin Crimp	18-24	1.52/3.05 (.060/.120)	1560	02-06-6118	02-06-6119	
		24-30	1.02/2.29 (.040/.090)	1854	02-06-6143	02-06-6144	
.008" Phosphor Bronze	Tin	18-24	1.52/3.05 (.060/.120)	1786	02-06-2201	02-06-2202	
	Gold (15µ")	18-24	1.52/3.05 (.060/.120)	1786	02-06-6201	02-06-6202	
.008" PC Tail Brass for Standard .062" Housings Only	Tin			1778	02-06-8103		
	30µ" Gold Tin Tail Area			1778		02-06-6122	

Note: .006 Phosphor Bronze stock recommended for versions 15 circuits and larger

3.68mm (.145") Pitch .062" Pin and Socket Crimp Terminal Housing Receptacle

Standard .062"



Features and Benefits
- Friction lock
- Panel and PCB mountable
- Polarized housing assures proper mating
- Male and female terminals may be used in receptacle housing

Reference Information
Product Specification: PS-02-06
UL File No.: E29179
CSA File No.: LR19980
Mates With: Standard .062" plug
Use With: Standard .062" terminal

Electrical
Voltage: 250V
Current: See chart

Mechanical
Contact Retention to Housing: 88.96N min.

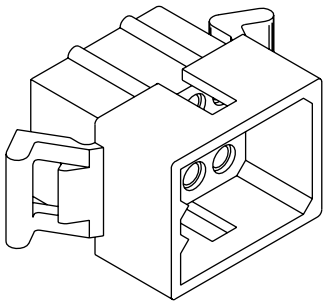
Physical
Housing: Nylon 6/6, UL 94V-2

Circuits	Series	Order No.		Amperes per Circuit
		Panel Mount	Free Hanging	
1	1625	N/A	03-06-1011	5.0
2		03-06-1022	03-06-1023	
3		03-06-1038	03-06-1032	
4 (1 x 4)		03-06-1041	03-06-1042	
4 (2 x 2)	2004	03-06-1043	03-06-1044	
5	1625	03-06-1055	03-06-1056	
6		03-06-1061	03-06-1062	
9		03-06-1091	03-06-1092	
12		03-06-1121	03-06-1122	
15		03-06-6155	03-06-1152	
24		03-06-1241	N/A	4.0
36*	1772	03-06-1361	03-06-1362	

* 36-circuit receptacle is on a 4.19mm (.165") pitch

3.68mm (.145") Pitch .062" Pin and Socket Crimp Terminal Housing Plug

Standard .062"



Features and Benefits
- Friction lock
- Panel and PCB mountable
- 1-piece strain relief available, 41316 series
- Polarized housing assures proper mating
- Male and female terminals may be used in plug housing

Reference Information
Product Specification: PS-02-06
UL File No.: E29179
CSA File No.: LR19980
Mates With: Standard .062" receptacle
Use With: Standard .062" terminal

Electrical
Voltage: 250V
Current: See chart

Mechanical
Contact Retention to Housing: 88.96N min.

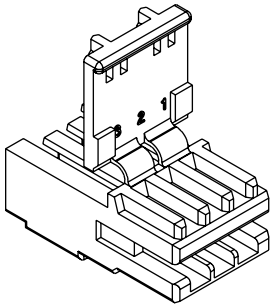
Physical
Housing: Nylon 6/6, UL 94V-2

Circuits	Series	Order No.		Amperes per Circuit
		Panel Mount	Free Hanging	
1	1625	N/A	03-06-2011	5.0
2		03-06-2024	03-06-2023	
3		03-06-2033	03-06-2032	
4 (1 x 4)		03-06-2041	03-06-2042	
4 (2 x 2)	2004	03-06-2043	03-06-2044	
5	1625	03-06-2054	03-06-2055	
6		03-06-2062	03-06-2061	
9		03-06-2091	03-06-2092	
12		03-06-2121	03-06-2122	
15		03-06-2151	03-06-2152	
24		03-06-2241	03-06-2242	4.0
36*	1772	03-06-2361	03-06-2362	

* 36-circuit plug is on a 4.19mm (.165") pitch

2.50mm (.098") Pitch Wire-to-Board Receptacle

94539
3 Circuit With Secondary Lock



Features and Benefits
- Rast 2.5 crimping technology
- Used for domestic appliances
- Plastic latch
- Polarized

Reference Information
Product Specification: PS-94539-005
Packaging: Box
Use With: 94539-1000
Designed In: Millimeters

Electrical
Voltage: 65V
Current: 3.0mA
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention Force: 3N (0.67 lb) min.
Contact Retention to Housing: 60N (13.49 lb) min.
Mating Force: 6N (1.35 lb) max.
Unmating Force: 30N (6.74 lb) min.
Normal Force: 1N (0.22 lb) min.
Durability: 20 cycles

Physical
Housing: PA 66, UL 94V-2

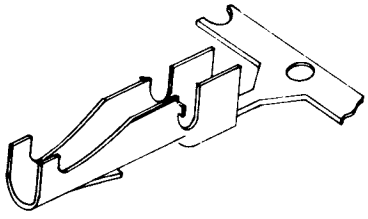
Order No.	Color	Polarized	Lead-free
94539-9003	Natural	No	Yes
94539-9103	Black		
94539-9203	Red		
94539-9303	Green		
94539-9133	Black	Yes	
94539-9213	Red		
94539-9443	Blue		

Note: Please contact Molex for 8 circuit version

www.molex.com/customer.html?seriesNumber=94539

Wire-to-Board Crimp Terminals Strain Relief PC Board Terminals

4706/4811



Features and Benefits
- Snap-lock secures wire to PC board for wave soldering
- No additional contact resistance
- Wire soldered directly to board
- Economical means of hand-wiring boards
- Eliminates eyelets on PC boards

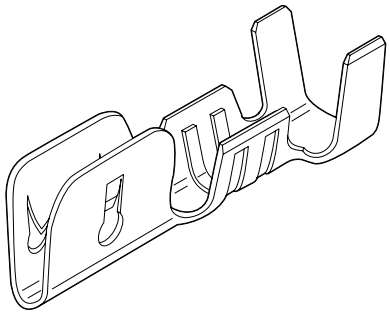
Reference Information
Product Specification: PS-4706 and PS-4811

Physical
Contact: Brass
Plating: See table

Wire Size AWG	Maximum Insulation Diameter	Engineering No.	Order No.	Plating	Terminal Progression	Application Tooling TM-42™			Dimension		Lead-free
						Die Only	Press and Die	Spare Tooling Kit	Board Thickness	PC Board Hole Size	
16-18	3.05 (.120)	4706	02-09-2105	Tin	11.20 (.440)	11-40-2042	11-04-0293	11-40-3042	1.57 (.062)	2.49 (.098)	Yes
18-24		4706-3	02-07-2101			11-40-2043	11-04-0295	11-40-3043		1.91 (.075)	
22-24	2.54 (.100)	4811	16-02-0037		9.70 (.380)	11-40-2029	11-04-0277	11-40-3029		1.30 (.051)	
22-26	1.52 (.060)	4811-1	16-02-0034			11-40-2039	11-04-0279				

Panel Grounding Clip

42172



Features and Benefits

- Provides reliable ground to chassis without fasteners
- Simple to install
- Requires no secondary fasteners
- Accepts single and dual crimps
- Secondary grounding applications only
- Rust-resistant Stainless Steel

Reference Information

UL File No.: E126412
CSA File No.: LR19980A

Physical

Contact: .020" Stainless Steel

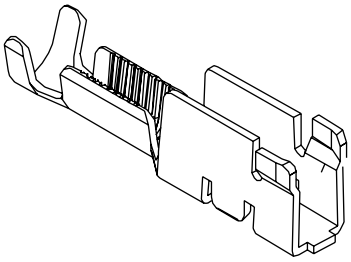
Minimum Panel Thickness	Maximum Panel Thickness	Wire Range AWG	Dual Crimp Capabilities	Engineering No.	Order No.	Lead-free
0.38 (.015)	0.89 (.035)	16-18	(2) 18 AWG, or (1) 18 and (1) 16 AWG	42172-G1	40-06-2024	Yes
		14	(2) 16 AWG	42172-AA1	40-06-2014	
		16-18	(2) 18 AWG, or (1) 18 and (1) 16 AWG	42172-A1	40-06-2003	
0.51 (.020)	0.76 (.030)	16-18		42172-F1	40-06-2017	
0.89 (.035)	1.27 (.050)	14	(2) 16 AWG	42172-BB1	40-06-2015	
		16-18	(2) 18 AWG, or (1) 18 and (1) 16 AWG	42172-B1	40-06-2005	
1.52 (.060)	1.91 (.075)			42172-C1	40-06-2013	

www.molex.com/customer.html?seriesNumber=42172

3.18mm (.125") Diameter Pin Cluster Block Connector Terminal

35454

For Magnet Wire



Features and Benefits

- Crimped with magnet wire
- One-step crimping operation (no stripping operation)
- Sharp edge serration for good electrical contact

Reference Information

Product Specification: PS-35548
Packaging: Reel
UL File No.: E29179
Use With: 35548
Designed In: Millimeters

Electrical

Voltage: 230V
Current: 20.0A
Contact Resistance: 5 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 1000 Megohms min.

Mechanical

Unmating Force: 11.2N (2.8 lb) min.
Durability: 30 cycles

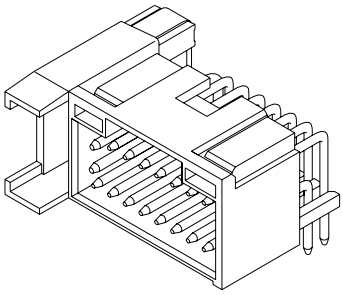
Physical

Contact: Phosphor Bronze
Plating: Tin
Wire Gauge: 400 to 8000 CMA

Order No.	Wire Range (CMA)	Lead-free
35454-8702	400-1600	Yes
35454-8902	1500-4200	
35454-8002	4000-8000	

3-in-1 Combo Connector Mini-Fuse/Power 2.50mm (.098")

87527
Right Angle



Circuits	Order No.	Lead-free
16	87527-1612	Yes

Features and Benefits
- Size 16 circuits
- 3-in-1 combo (Signal, Power & Mini-Fuse Socket)
- Low profile

Reference Information
Product Specification: PS-87527-001
Packaging: Bag
Designed In: Millimeters

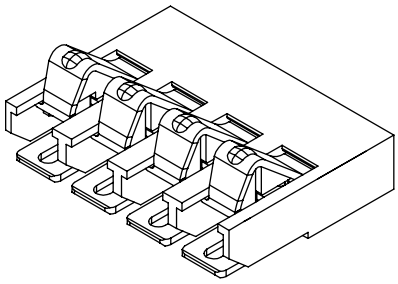
Electrical
Voltage: 250V max.
Current: 4.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Nylon, UL94-V2
Contact: Brass
Plating: Tin over Nickel

www.molex.com/product/io/

2.00mm (.079") Pitch Battery Connector

47182
Surface Mount



Circuits	Order No.	Lead-free
2	47182-1001	Yes
4	47182-0001	

Features and Benefits
- Board-to-board connector for battery and power applications
- Rugged durability up to 10,000 cycles
- Maximum current of 2.3A per circuit
- Strong terminal design provides higher contact force

Reference Information
Product Specification: PS-47182-001
Packaging: Tape on reel
Designed In: Millimeters

Electrical
Voltage: 200V
Current: 1.0A
Contact Resistance: 25 milliohms max.
Dielectric Withstanding Voltage: 100V AC
Insulation Resistance: 500 Megohms min.

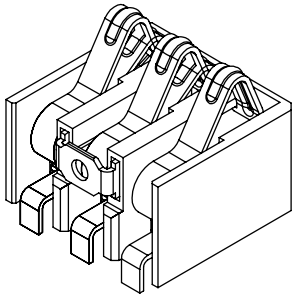
Mechanical
Normal Force: 1.03N
Durability: 10,000 cycles

Physical
Housing: High-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—30µ" Gold
Solder Tail Area—Gold Flash
Underplating: Nickel

2.50mm (.098") Pitch Battery Connector

47204

Surface Mount



Order No.	Lead-free
47204-0001	Yes

Features and Benefits

- Board-to-board connector for battery and power applications
- Rugged durability up to 10,000 cycles
- Maximum current of 2.3A per circuit
- Strong terminal design provides higher contact force

Reference Information

Product Specification: PS-47204-001
Packaging: Tape on reel
Designed In: Millimeters

Electrical

Voltage: 200V
Current: 1.0A
Contact Resistance: 25 milliohms max.
Dielectric Withstanding Voltage: 100V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Normal Force: 0.34N
Durability: 10,000 cycles

Physical

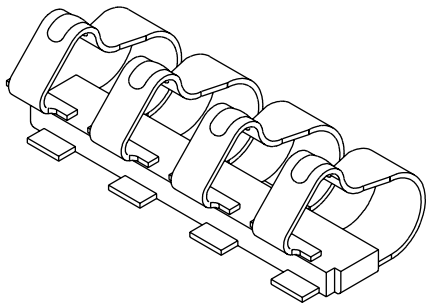
Housing: High-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—16µ" Gold
Solder Tail Area—Tin
Underplating: Nickel

www.molex.com/customer.html?seriesNumber=47204

3.90mm (.153") Pitch Battery Connector

94337

4 Circuit
Single Row, SMT



Order No.	Lead-free
94337-5014	Yes

Features and Benefits

- Electrical connection between main battery and mobile phone
- SMT lead configuration
- PCB top mounting
- Insert molded
- Pick-and-place area

Reference Information

Product Specification: PS-94337-005
Packaging: Tape and reel
Designed In: Millimeters

Electrical

Voltage: 200V
Current: 1.0A
Contact Resistance: 25 milliohms max
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 1000 Megohms min.

Mechanical

Normal Force: 2.2N (0.49 lb) min.
Durability: 10,000 cycles

Physical

Housing: Black LCP
Contact: Beryllium Copper Alloy
Plating: Contact Area—Selective Gold over Palladium Nickel
Solder Tail Area—Selective Tin
Underplating—Nickel overall

SMT Connectors

FFC/FPC Overview F-2
0.25mm (.010") Pitch
ZIF Connectors Easy-On™ Type F-3
0.30mm (.012") Pitch
ZIF Connectors Easy-On Type ..... F-3 to F-7
0.50mm (.020") Pitch
ZIF Connectors ..... F-7 to F-10
ZIF Connectors Easy-On Type ..... F-11 to F-13
ZIF Connectors BackFlip™ Actuator F-12
Non-ZIF Connectors F-13
ZIF Connectors Easy-On Type for LVDS F-14
ZIF Connectors Easy-On Dust Cover Type F-15
1.00mm (.039") Pitch
ZIF Connectors ..... F-15 to F-16
Non-ZIF Connectors ..... F-17 to F-18

Through Hole Connectors

1.25mm (.049") Pitch
ZIF Connectors ..... F-18 to F-19
Non-ZIF Connectors ..... F-19 to F-20
FFC/FPC Cable Connectors – SL™ ..... F-20 to F-22

Flat Flex Cable Jumpers—Premo-Flex™

0.50mm (.020") Pitch ..... F-23 to F-26
1.00mm (.039") Pitch ..... F-27 to F-30
1.25mm (.049") Pitch ..... F-31 to F-34

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

FFC/FPC Connectors With Actuators

Molex offers a wide variety of connectors for flat flexible cable (FFC) and flexible printed circuitry (FPC). Included in this FFC/FPC family are connectors with actuators on 0.30, 0.50, 0.625, 1.00 and 1.25mm pitch. Actuators are pre-assembled covers that secure the connection between the FFC/FPC and the connector terminals.

Features

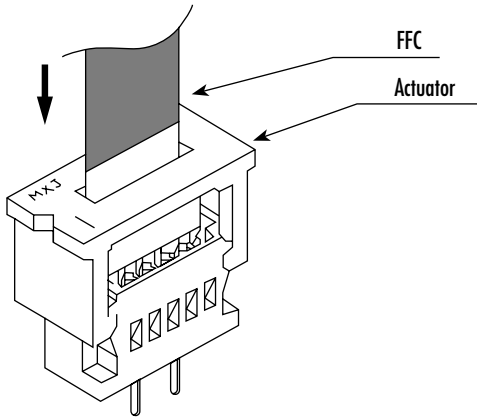
The Actuator System offers the following advantages:

- Low wear—the Zero Insertion Force (ZIF) contacts allow for repeated cycling with minimal wear
- High strength/small size—the cover assures maximum cable retention in the smallest size
- Easy insertion—the ZIF contacts allow for the easy insertion of very thin cable

How the System Works

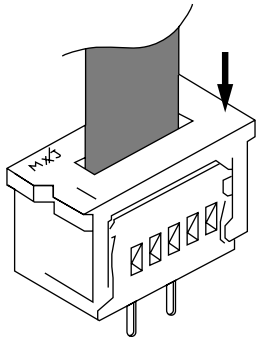
1

Raise the actuator cover and insert the FFC/FPC through the actuator cover and into the connector body.



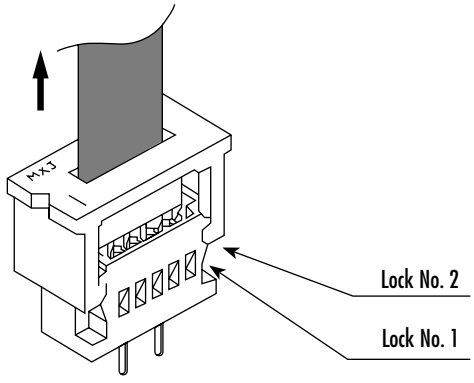
2

Press down the cover. This moves the actuating tabs against the terminals and makes a high-pressure contact between the deflected terminal and the cable contact area.



3

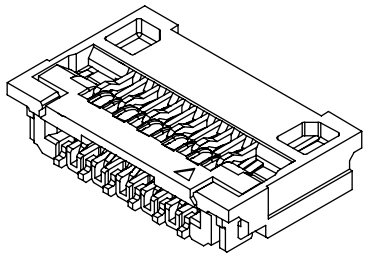
To disconnect the cable and connector, simply raise the cover and slip out the FFC/FPC.



0.25mm (.010") Pitch Easy-On™ FPC Connector

502078

Right Angle, SMT Bottom Contact Style 1.00mm (.039") Mated Height



Circuits	Order No.	Lead-free
12	502078-1710	Yes
21	502078-2110	
25	502078-2510	
33	502078-3310	
39	502078-3910	
51	502078-5110	

Features and Benefits

- Sizes 17 to 51 circuits
- Easy-On actuator facilitates cable insertion
- Standard 2.0mm FPC thickness applicable

Reference Information

Product Specification: PS-502078-002
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.2A max.
Contact Resistance: Odd circuits—80 milliohms max.
Even circuits—50 milliohms max.
Dielectric Withstanding Voltage: 150V AC/1 min.
Insulation Resistance: 50 Megohms min.

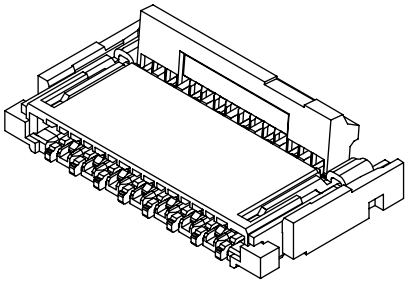
Physical

Housing: Glass-filled heat resistant Plastic, UL 94V-0
Actuator: Glass-filled heat resistant Plastic, UL 94-HB
Contact: Copper Alloy
Plating: Gold over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

0.30mm (.012") Pitch Easy-On™ BackFlip™ Type FPC Connector

502250

Right Angle, SMT Dual Contact Style 0.90mm (.035") Mated Height



Circuits	Order No.	Lead-free
17	502250-1791	Yes
21	502250-2191	
23	502250-2391	
27	502250-2791	
33	502250-3391	

Circuits	Order No.	Lead-free
35	502250-3591	Yes
39	502250-3991	
41	502250-4191	
51	502250-5191	

Features and Benefits

- Sizes 17 to 51 circuits
- Dual contact style enables design flexibility

Reference Information

Product Specification: PS-502250-001
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.2A max.
Contact Resistance: 80 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

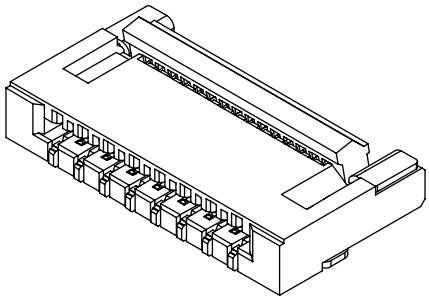
Physical

Housing: Glass-filled LCP, UL 94V-0
Actuator: Glass-filled PPS, UL 94V-0
Contact: Copper Nickel Tin Alloy
Plating: Contact Area—Partial Gold over Nickel
Solder Tail Area—Partial Gold over Nickel
Fitting Nails: Phosphor Bronze, Tin over Nickel plating

0.30mm (.012") Pitch Easy-On™ BackFlip™ Type FPC Connector

501616

Right Angle, SMT
Top Contact Style
1.10mm (.043") Mated Height



Features and Benefits
- Sizes 19 to 51 circuits
- Back-side actuator method enables easy cable insertion/extraction in very tight applications

Reference Information
Product Specification: PS-501616-002(**75)
PS-501616-003(**85)
Packaging: Embossed tape
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.2A max.
Contact Resistance: 80 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical
Housing: Gray heat resistant Polymer, UL 94V-0
Actuator: Black heat resistant Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Partial Gold over Nickel
Solder Tail Area—Partial Gold over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

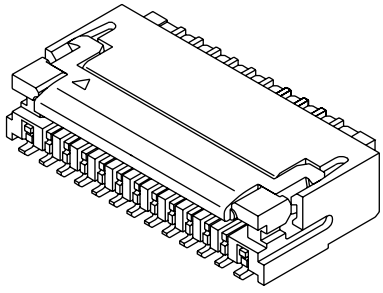
Circuits	Order No.	Lead-free
19	501616-1975	Yes
25	501616-2575	
27	501616-2775	
29	501616-2975	
35	501616-3585	

Circuits	Order No.	Lead-free
39	501616-3985	Yes
41	501616-4185	
45	501616-4585	
51	501616-5185	

0.30mm (.012") Pitch Easy-On™ FFC/FPC Connector

54393

Right Angle, SMT, ZIF
Bottom Contact Style



Features and Benefits
- Sizes 17 to 51 circuits
- Actuator rotates back 100 degrees for easy cable insertion
- Staggered dual-row PCB layout provides space savings and easy soldering
- Contact design includes pre-hold cable feature to help facilitate FPC insertion

Reference Information
Product Specification: PS-54393-064
Packaging: Embossed tape
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.2A max.
Contact Resistance: Odd circuits—80 milliohms max.
Even circuits—40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

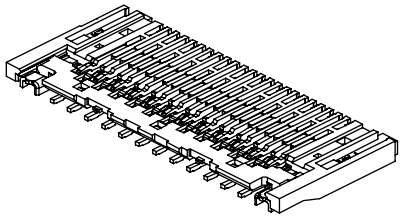
Physical
Housing: LCP, UL 94V-0
Actuator: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel Plating

Circuits	Order No.	Lead-free
17	54393-1781	Yes
21	54393-2181	
23	54393-2381	
27	54393-2781	
33	54393-3381	
39	54393-3981	
45	54393-4581	
51	54393-5181	

0.30mm (.012") Pitch Easy-On™ FPC Connector

502761

Right Angle, SMT Bottom Contact Style 0.62mm (.024") Mated Height



Circuits	Order No.	Lead-free
33	502761-3300	Yes
49	502761-4900	

Features and Benefits

- Sizes 33 and 49 circuits
- Ultra low profile, height 0.62mm nominal

Reference Information

Product Specification: PS-502761-001
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.2A max.
Contact Resistance: 80 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

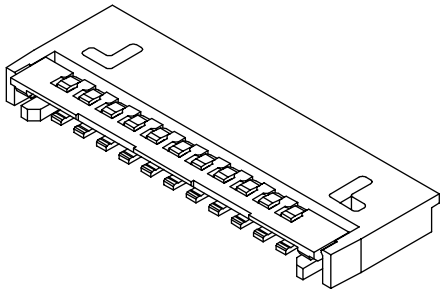
Physical

Housing: Glass-filled LCP, UL 94V-0
Actuator: Glass-filled LCP, UL 94V-0
Contact: Copper Nickel Tin Alloy
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Gold over Nickel
Fitting Nails: Phosphor Bronze, Tin over Nickel plating

0.30mm (.012") Pitch Easy-On™ FPC Connector

501628

Right Angle, SMT Bottom Contact Style 0.90mm (.035") Mated Height



Circuits	Order No.	Lead-free
21	501628-2191	Yes
27	501628-2791	
31	501628-3191	
33	501628-3391	
35	501628-3591	
39	501628-3991	
45	501628-4591	
51	501628-5191	

Features and Benefits

- Sizes 21 to 51 circuits
- Easy-On actuator facilitates cable insertion

Reference Information

Product Specification: PS-501628-001
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.2A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

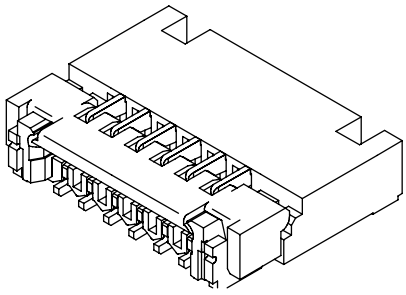
Physical

Housing: Glass-filled LCP, UL 94V-0
Actuator: Glass-filled PA, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Partial Gold over Nickel
Fitting Nail Area—Tin over Nickel

0.30mm (.012") Pitch Easy-On™ FPC Connector

54809

Right Angle, SMT, ZIF Bottom Contact Style 1.30mm (.051") Mated Height



Features and Benefits

- Sizes 11 to 45 circuits
- Actuator rotates back 130 degrees for easy cable insertion
- Staggered dual-row PCB layout provides space savings and easy soldering
- Contact design includes pre-hold cable feature

Reference Information

Product Specification: PS-54809-034
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.2A max.
Contact Resistance: Odd Circuits—80 milliohms max.
Even Circuits—40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical

Housing: LCP, UL 94V-0
Actuator: PA, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel Plating

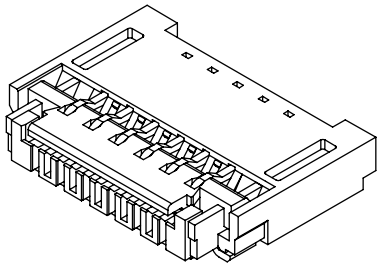
Circuits	Order No.	Lead-free
11	54809-1175	Yes
15	54809-1575	
19	54809-1975	
21	54809-2175	
25	54809-2575	
27	54809-2775	

Circuits	Order No.	Lead-free
31	54809-3175	Yes
33	54809-3375	
35	54809-3575	
39	54809-3975	
45	54809-4575	

0.30mm (.012") Pitch Easy-On™ FPC Connector

500797

Right Angle, SMT, ZIF Bottom Contact Style 1.05mm (.041") Mated Height



Features and Benefits

- Sizes 11 to 51 circuits
- Low profile and short width provide space savings
- Robust spring contact design
- Superior terminal design allows high retention force
- Audible click ensures cable is fully actuated

Reference Information

Product Specification: PS-500797-003
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.2A max.
Contact Resistance: Odd Circuits—80 milliohms max.
Even Circuits—40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical

Housing: Glass-fillled LCP, UL 94V-0
Actuator: Glass-filled Nylon, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel Plating

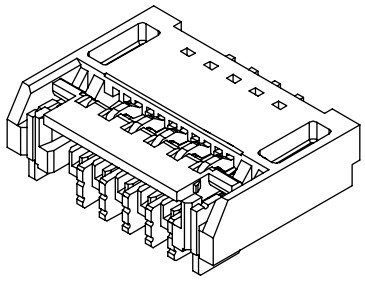
Circuits	Order No.	Lead-free
11	500797-1194	Yes
15	500797-1594	
17	500797-1794	
23	500797-2394	
25	500797-2594	
27	500797-2794	

Circuits	Order No.	Lead-free
31	500797-3194	Yes
33	500797-3394	
35	500797-3594	
39	500797-3994	
41	500797-4194	
51	500797-5194	

0.30mm (.012") Pitch Easy-On™ FPC Connector

501912

Right Angle, SMT Bottom Contact Style 1.80mm (.071") Mated Height



Features and Benefits

- Sizes 15 to 51 circuits
- Space under body of connector provides space for components
- LIF contact design enables temporary positioning of FPC
- Easy-On actuator for easy FPC cable insertion
- Gold plating offers good contact reliability

Reference Information

Product Specification: PS-501912-001
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.2A max.
Contact Resistance: Odd circuits—80 milliohms max.
Even circuits—40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical

Housing: Glass-filled heat resistant Polymer, UL 94V-0
Actuator: Glass-filled heat resistant Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold over Nickel
Fitting Nail Area—Tin over Nickel

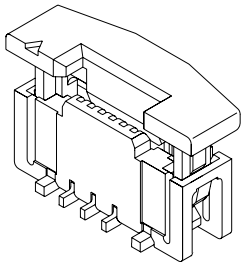
Circuits	Order No.	Lead-free
15	501912-1590	Yes
21	501912-2190	
23	501912-2390	
25	501912-2590	
27	501912-2790	
33	501912-3390	
35	501912-3590	

Circuits	Order No.	Lead-free
37	501912-3790	Yes
39	501912-3990	
41	501912-4190	
45	501912-4590	
47	501912-4790	
51	501912-5190	

0.50mm (.020") Pitch FFC/FPC Connector

52559

Vertical, SMT, ZIF



Features and Benefits

- Sizes 6 to 40 circuits
- For 0.30mm thick FFC/FPC
- Fitting nails provide PCB hold-down and strain relief for SMT tails

Reference Information

Product Specification: PS-52559-013 (XX52)
PS-52559-016 (XX54)
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical

Housing: Nylon, UL 94V-0
Actuator: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel Plating

Circuits	Order No.		Lead-free
	Standard Packaging	High-Barrier Packaging	
6	52559-0652	52559-0654	Yes
9	52559-0952	52559-0954	
10	52559-1052	52559-1054	
12	52559-1252	52559-1254	
14	52559-1452	52559-1454	
15	52559-1552	52559-1554	
16	52559-1652	52559-1654	
20	52559-2052	52559-2054	
21	52559-2152	52559-2154	

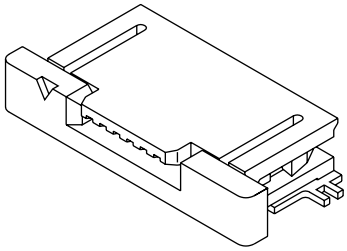
Circuits	Order No.		Lead-free
	Standard Packaging	High-Barrier Packaging	
24	52559-2452	52559-2454	Yes
26	52559-2652	52559-2654	
27	52559-2752	52559-2754	
28	52559-2852	52559-2854	
30	52559-3052	52559-3054	
32	52559-3252	52559-3254	
36	52559-3652	52559-3654	
40	52559-4052	52559-4054	

Note: 52559-XX54 is High-Barrier (moisture protection) packaging

0.50mm (.020") Pitch FFC/FPC Connector

52745

Right Angle, SMT, ZIF Top Contact Style



Features and Benefits

- Sizes 4 to 20 circuits
- For 0.30mm (.012") thick FFC/FPC
- Fitting nails provide PCB hold-down and strain relief for SMT tails

Reference Information

Product Specification: PS-52745-051
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical

Housing: Glass-filled PA, UL 94V-0
Actuator: Glass-filled PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel Plating

Circuits	Order No.	Lead-free
4	52745-0483	Yes
6	52745-0683	
7	52745-0783	
8	52745-0883	
10	52745-1083	
11	52745-1183	
12	52745-1283	

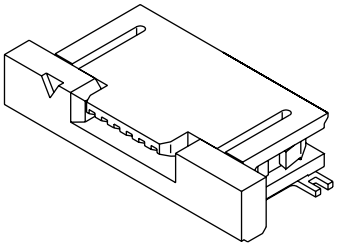
Circuits	Order No.	Lead-free
13	52745-1383	Yes
14	52745-1483	
15	52745-1583	
16	52745-1683	
17	52745-1783	
18	52745-1883	
20	52745-2083	

Note: High-Barrier (moisture protection) packaging

0.50mm (.020") Pitch FFC/FPC Connector

52435

Right Angle, SMT, ZIF Top Contact Style



Features and Benefits

- Sizes 21 to 30 circuits
- For 0.30mm (.012") thick FFC/FPC
- Fitting nails provide PCB hold-down and strain relief for SMT tails

Reference Information

Product Specification: PS-52435-025
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical

Housing: Nylon, UL 94V-0
Actuator: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold
Fitting Nail: Phosphor Bronze, Tin Plating

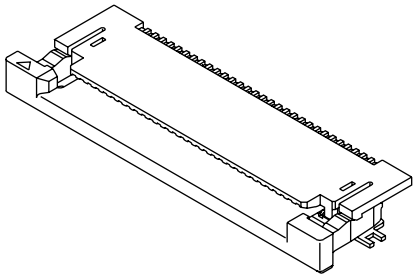
Circuits	Order No.	Lead-free
21	52435-2171	Yes
22	52435-2271	
24	52435-2471	
25	52435-2571	

Circuits	Order No.	Lead-free
26	52435-2671	Yes
27	52435-2771	
28	52435-2871	
30	52435-3071	

0.50mm (.020") Pitch FFC/FPC Connector

54104

Right Angle, SMT, ZIF Top Contact Style



Features and Benefits

- Sizes 30 to 50 circuits
- For 0.30mm (.012") thick FFC/FPC
- Pre-hold cable feature helps facilitate correct FPC insertion
- Durable actuator design
- Fitting nails provide PCB hold-down and strain relief for SMT tails

Reference Information

Production Specification: PS-54104-071
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical

Housing: Nylon, UL 94V-0
Actuator: PPA, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nail: Phosphor Bronze, Tin Plating

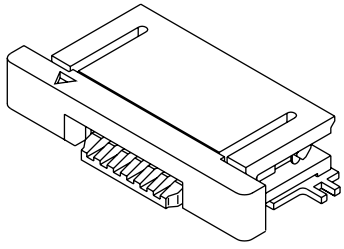
Circuits	Order No.	Lead-free
30	54104-3031	Yes
32	54104-3231	
33	54104-3331	
34	54104-3431	
35	54104-3531	
36	54104-3631	

Circuits	Order No.	Lead-free
38	54104-3831	Yes
40	54104-4031	
45	54104-4531	
46	54104-4631	
50	54104-5031	

0.50mm (.020") Pitch FFC/FPC Connector

52746

Right Angle, SMT, ZIF Bottom Contact Style



Features and Benefits

- Sizes 4 to 20 circuits
- For 0.30mm (.012") thick FFC/FPC
- Fitting nails provide PCB hold-down and strain relief for SMT tails

Reference Information

Production Specification: PS-54746-015
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical

Housing: Nylon, UL 94V-0
Actuator: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nails: Phosphor Bronze, Tin over Nickel Plating

Circuits	Order No.	Lead-free
4	52746-0484	Yes
6	52746-0684	
7	52746-0784	
8	52746-0884	
10	52746-1084	
11	52746-1184	

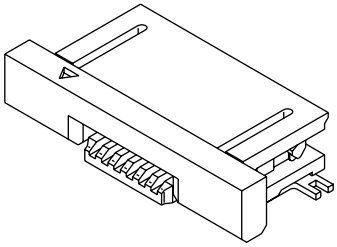
Circuits	Order No.	Lead-free
12	52746-1284	Yes
14	52746-1484	
15	52746-1584	
16	52746-1684	
18	52746-1884	
20	52746-2084	

Note: High-Barrier (moisture protection) packaging

0.50mm (.020") Pitch FFC/FPC Connector

52437

Right Angle, SMT, ZIF Bottom Contact Style



Features and Benefits

- Sizes 21 to 30 circuits
- For 0.30mm (.012") thick FFC/FPC
- Fitting nails provide PCB hold-down and strain relief for SMT tails

Reference Information

Production Specification: PS-52437-027
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical

Housing: Nylon, UL 94V-0
Actuator: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold
Fitting Nail: Phosphor Bronze, Tin Plating

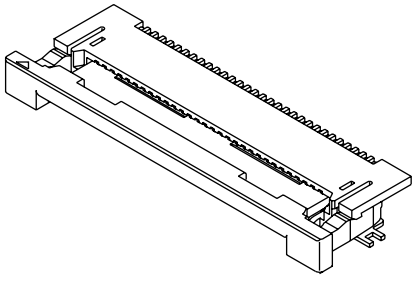
Circuits	Order No.	Lead-free
21	52437-2171	Yes
22	52437-2271	
23	52437-2371	
24	52437-2471	
25	52437-2571	

Circuits	Order No.	Lead-free
26	52437-2671	Yes
27	52437-2771	
28	52437-2871	
29	52437-2971	
30	52437-3071	

0.50mm (.020") Pitch FFC/FPC Connector

54132

Right Angle, SMT, ZIF Bottom Contact Style



Features and Benefits

- Sizes 30 to 50 circuits
- For 0.30mm (.012") thick FFC/FPC
- Pre-hold cable retention feature helps facilitate correct FPC insertion
- Durable actuator design
- Fitting nails provide PCB hold-down and strain relief for SMT tails

Reference Information

Production Specification: PS-54132-061
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical

Housing: Nylon, UL 94V-0
Actuator: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nails: Phosphor Bronze, Tin over Nickel plating

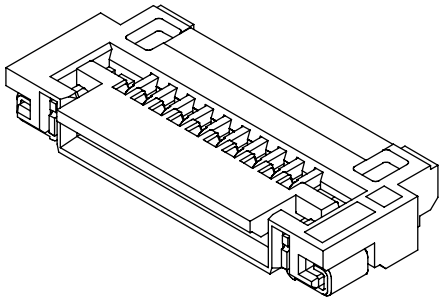
Circuits	Order No.	Lead-free
30	54132-3062	Yes
32	54132-3262	
33	54132-3362	
34	54132-3462	
35	54132-3562	
36	54132-3662	

Circuits	Order No.	Lead-free
38	54132-3862	Yes
40	54132-4062	
43	54132-4362	
45	54132-4562	
50	54132-5062	

0.50mm (.020") Pitch Easy-On™ FFC/FPC Connector

51296

Right Angle, SMT, ZIF Bottom Contact Style 1.30mm (.051") Height



Features and Benefits

- Sizes 8 to 60 circuits
- Actuator rotates to allow for easy cable insertion from top or side
- For 0.30mm (.012") thick FFC/FPC
- Fitting nails provide PCB hold-down and strain relief for SMT tails

Reference Information

Product Specification: PS-51296-003
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical

Housing: Glass-filled LCP, UL 94V-0
Actuator: Glass-filled PA, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nails: Phosphor Bronze, Tin over Nickel

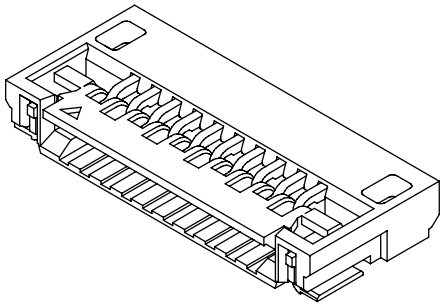
Circuits	Order No.	Lead-free
8	51296-0894	Yes
12	51296-1294	
14	51296-1494	
18	51296-1894	
34	51296-3494	

Circuits	Order No.	Lead-free
40	51296-4094	Yes
45	51296-4594	
50	51296-5094	
54	51296-5494	
60	51296-6094	

0.50mm (.020") Pitch Easy-On™ FFC/FPC Connector

51441

Right Angle, SMT, ZIF Bottom Contact Style 1.10mm (.043") Mated Height



Features and Benefits

- Sizes 8 to 24 circuits
- For 0.30mm (.012") thick FFC/FPC
- Actuator rotates to allow for easy cable insertion from top or side
- Fitting nails provide PCB hold-down and strain relief for SMT tails

Reference Information

Product Specification: PS-51441-006
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical

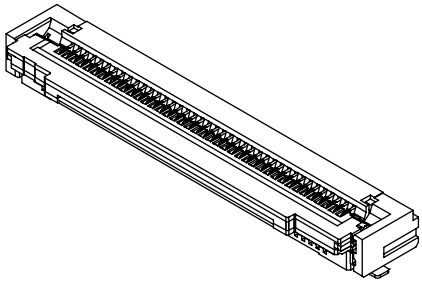
Housing: Glass-filled LCP, UL 94V-0
Actuator: Glass-filled PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nails: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.	Lead-free
8	51441-0872	Yes
10	51441-1072	
11	51441-1172	
12	51441-1272	
20	51441-2072	
22	51441-2272	
24	51441-2472	

0.50mm (.020") Pitch Easy-On™ FPC Connector

502790

Right Angle, SMT Double Bottom Contact Style



Circuits	Order No.	Lead-free
30	502790-3091	Yes
64	502790-6491	
80	502790-8091	

Features and Benefits

- Double bottom contact enables high contact reliability

Reference Information

Product Specification: PS-502790-001
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 50 Megohms min.

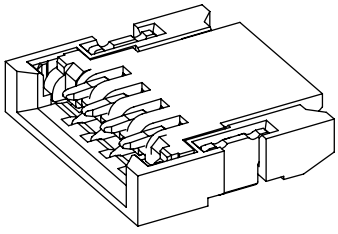
Physical

Housing: Glass-filled LCP, UL 94V-0
Actuator: Glass-filled PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Fitting Nails: Phosphor Bronze, Tin over Nickel plating

0.50mm (.020") Pitch BackFlip™ Actuator FPC Connector

501461

Right Angle, SMT, ZIF Bottom Contact Style 0.80mm (.031") Mated Height



Circuits	Order No.	Lead-free
4	501461-0401	Yes
5	501461-0501	
6	501461-0601	
8	501461-0802	

Features and Benefits

- Sizes 4 to 8 circuits
- Low profile and short width provide space savings
- Two internal FPC locks allow high cable retention force
- Actuator friction locks provide secure mating
- BackFlip actuator

Reference Information

Product Specification: PS-501461-001 (4 to 6 circuits)
PS-501461-002 (8 circuits)
Packaging: Embossed tape
Designed In: Millimeters

Electrical

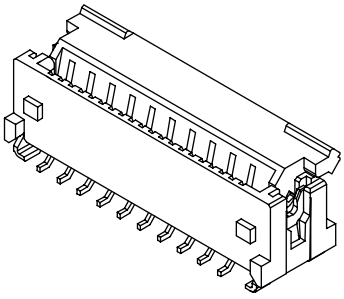
Voltage: 50V max.
Current: 0.3A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical

Housing: Glass-filled heat resistant Polymer, UL 94V-0
Actuator: Glass-filled heat resistant Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

0.50mm (.020") Pitch Easy-On™ FFC/FPC Connector

501951
Vertical, SMT



Features and Benefits
- Sizes 20 to 70 circuits
- Robust Easy-On actuator secures cable retention; easy operation
- Wide area on actuator for vacuum pick-up area
- Wide, elevated solder tabs secure PCB retention; space underneath

Reference Information
Product Specification: PS-501951-002
Packaging: Embossed tape
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.4A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

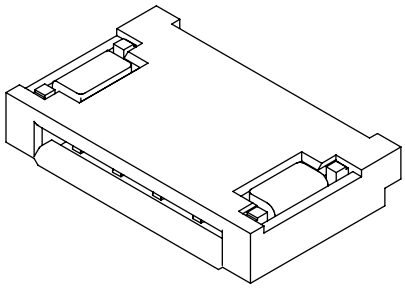
Physical
Housing: Glass-filled LCP, UL 94V-0
Actuator: Glass-filled PA, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold over Nickel
Fitting Nail Area—Tin over Nickel

Circuits	Order No.	Lead-free
20	501951-2010	Yes
22	501951-2210	
24	501951-2410	
30	501951-3010	
32	501951-3210	
40	501951-4010	

Circuits	Order No.	Lead-free
45	501951-4510	Yes
50	501951-5010	
60	501951-6010	
70	501951-7010	

0.50mm (.020") Pitch FFC/FPC Connector

51281
Right Angle, SMT, Non-ZIF Dual Contact Style



Features and Benefits
- Sizes 5 to 26 circuits
- Cable can be inserted from top or bottom
- Accepts industry standard 0.30mm (.012") thick FFC/FPC
- Low-profile design accommodates height constraints
- Surface mount solder tabs provide retention to the PCB

Reference Information
Product Specification: PS-51281-003
Packaging: Embossed tape
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 50 Megohms min.

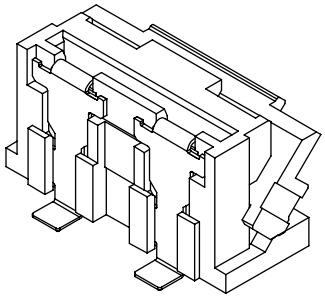
Physical
Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel
Fitting Nails: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.	Lead-free
5	51281-0594	Yes
6	51281-0694	
8	51281-0894	
9	51281-0994	
10	51281-1094	
12	51281-1294	
14	51281-1494	

Circuits	Order No.	Lead-free
16	51281-1694	Yes
18	51281-1894	
20	51281-2094	
22	51281-2294	
24	51281-2494	
26	51281-2694	

0.50mm (.020") Pitch Easy-On™ FFC Connector for LVDS

502231
Vertical, SMT, ZIF



Circuits	Order No.	Lead-free
15	502231-1500	Yes
33	502231-3300	

Features and Benefits
- Sizes 15 and 33 circuits
- Grounding terminals provide noise suppression and good signal integrity
- Wide base on grounding terminals offer grounding support, PCB retention
- Easy-On actuator facilitates cable insertion
- Wide, flat actuator top provides stable pick-and-place area

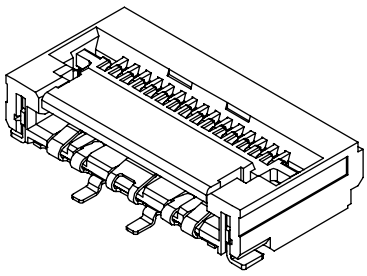
Reference Information
Product Specification: PS-502231-001
Packaging: Embossed tape
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.4A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical
Housing: Glass-filled LCP, UL 94V-0
Actuator: Glass-filled PA, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Ground Terminal Area—Tin over Nickel

0.50mm (.020") Pitch Easy-On™ FFC Connector for LVDS

502244
Right Angle, SMT, ZIF Bottom Contact Style



Circuits	Order No.	Lead-free
15	502244-1530	Yes
24	502244-2430	
33	502244-3330	

Features and Benefits
- Sizes 15 to 33 circuits
- Grounding terminals provide noise suppression and good signal integrity
- Wide base on grounding terminals offer grounding support, PCB retention
- Easy-On actuator facilitates cable insertion
- Wide, flat actuator top provides stable pick-and-place area

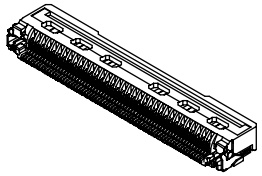
Reference Information
Product Specification: PS-502244-001
Packaging: Embossed tape
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.4A max.
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical
Housing: Glass-filled LCP, UL 94V-0
Actuator: Glass-filled PA, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Ground Terminal Area—Tin over Nickel
Fitting Nails: Phosphor Bronze, Tin over Nickel Plating

0.50mm (.020") Pitch Easy-On™ FPC Connector Dust Cover type

502611
Right Angle, SMT Bottom Contact Style 3.90mm (.154") Mated Height



Features and Benefits
- Sizes 20 to 68 circuits
- Dust cover type
- Large actuator on back side prevents dust insertion

Reference Information
Product Specification: PS-502611-002
Packaging: Embossed tape
Designed In: Millimeters

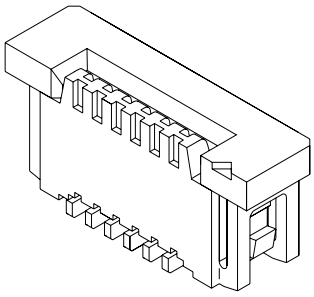
Electrical
Voltage: 100V max.
Current: 0.3A max.
Contact Resistance: 100 milliohms max.
Dielectric Withstanding Voltage: 100V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical
Housing: Glass-filled heat resistant Polymer, UL 94V-0
Actuator: Glass-filled heat resistant Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Partial Gold over Nickel
Fitting Nails: Copper Alloy, Tin plating

Circuits	Order No.	Lead-free
20	502611-2021	Yes
35	502611-3521	
55	502611-5521	
68	502611-6821	

1.00mm (.039") Pitch FFC/FPC Connector

52610
Vertical, SMT, ZIF



Features and Benefits
- Sizes 6 to 30 circuits
- For 0.30mm thick FFC/FPC

Reference Information
Product Specification: PS-52610-007
UL File No.: E29179
Packaging: Embossed tape
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: Nylon, UL 94V-0
Actuator: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel

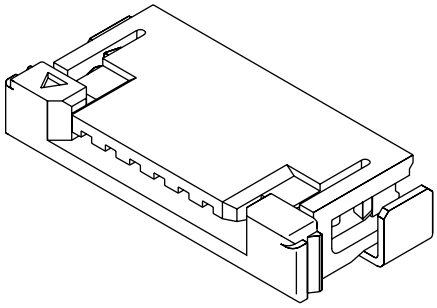
Circuits	Order No.		Lead-free
	Standard Packaging	High-Barrier Packaging	
6	52610-0672	52610-0677	Yes
8	52610-0872	52610-0877	
9	52610-0972	52610-0977	
10	52610-1072	52610-1077	
12	52610-1272	52610-1277	
14	52610-1472	52610-1477	
15	52610-1572	52610-1577	
16	52610-1672	52610-1677	

Circuits	Order No.		Lead-free
	Standard Packaging	High-Barrier Packaging	
17	52610-1772	52610-1777	Yes
18	52610-1872	52610-1877	
20	52610-2072	52610-2077	
22	52610-2272	52610-2277	
24	52610-2472	52610-2477	
26	52610-2672	52610-2677	
30	52610-3072	52610-3077	

Note: 52610-XX77 is High-Barrier (moisture protection) packaging

1.00mm (.039") Pitch FFC/FPC Connector

52207
Right Angle, SMT, ZIF Top Contact Style



Features and Benefits
- Sizes 3 to 30 circuits
- For 0.30mm thick FFC/FPC
- Fitting nails provide PCB hold-down and strain relief for SMT tails

Reference Information
Product Specification: PS-52207-048
Packaging: Embossed tape
UL File No.: E29179
CSA File No.: LR19980
Designed In: Millimeters

Electrical
Voltage: 125V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: Nylon, UL 94V-0
Actuator: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

Circuits	Order No.		Lead-free
	Standard Packaging	High-Barrier Packaging	
3	52207-0360	52207-0351	Yes
4	52207-0460	52207-0451	
5	52207-0560	52207-0551	
6	52207-0660	52207-0651	
7	52207-0760	52207-0751	
8	52207-0860	52207-0851	
9	52207-0960	52207-0951	
10	52207-1060	52207-1051	

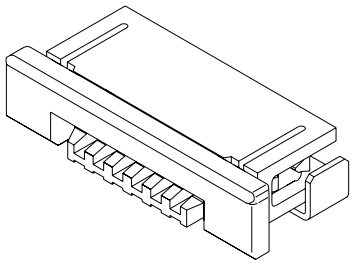
Circuits	Order No.		Lead-free
	Standard Packaging	High-Barrier Packaging	
11	52207-1160	52207-1151	Yes
12	52207-1260	52207-1251	
13	52207-1360	52207-1351	
14	52207-1460	52207-1451	
15	52207-1560	52207-1551	
16	52207-1660	52207-1651	
18	52207-1860	52207-1851	
19	52207-1960	52207-1951	

Circuits	Order No.		Lead-free
	Standard Packaging	High-Barrier Packaging	
20	52207-2060	52207-2051	Yes
21	52207-2160	52207-2151	
22	52207-2260	52207-2251	
24	52207-2460	52207-2451	
26	52207-2660	52207-2651	
27	52207-2760		
28	52207-2860	52207-2851	
30	52207-3060	52207-3051	

Note: 52207-XX51 is High-Barrier (moisture protection) packaging

1.00mm (.039") Pitch FFC/FPC Connector

52271
Right Angle, SMT, ZIF Bottom Contact Style



Features and Benefits
- Sizes 5 to 30 circuits
- For 0.30mm thick FFC/FPC
- Fitting nails provide PCB hold-down and strain relief for SMT tails

Reference Information
Product Specification: PS-52271-054
Packaging: Embossed tape
UL File No.: E29179
CSA File No.: LR19980
Designed In: Millimeters

Electrical
Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: Nylon, UL 94V-0
Actuator: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel plating

Circuits	Order No.		Lead-free
	Standard Packaging	High-Barrier Packaging	
5	52271-0569	52271-0583	Yes
7	52271-0769	52271-0783	
8	52271-0869	52271-0883	
10	52271-1069	52271-1083	
12	52271-1269	52271-1283	
13	52271-1369	52271-1383	
14	52271-1469	52271-1483	
15	52271-1569	52271-1583	
16	52271-1669	52271-1683	

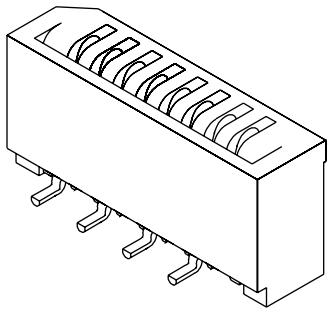
Circuits	Order No.		Lead-free
	Standard Packaging	High-Barrier Packaging	
17	52271-1769	52271-1783	Yes
18	52271-1869	52271-1883	
20	52271-2069	52271-2083	
21	52271-2169	52271-2183	
22	52271-2269	52271-2283	
25	52271-2569	52271-2583	
27	52271-2769	52271-2783	
28	52271-2869		
30	52271-3069	52271-3083	

Note: 52271-XX83 is High-Barrier (moisture protection) packaging

1.00mm (.039") Pitch FFC/FPC Connector

52808

Vertical, SMT, Non-ZIF



Features and Benefits

- Sizes 4 to 30 circuits

Reference Information

Product Specification: PS-52808-004
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 125V max.
Current: 0.5A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin Bismuth over Nickel

Circuits	Order No.	Lead-free
4	52808-0470	Yes
5	52808-0570	
6	52808-0670	
7	52808-0770	
8	52808-0870	
9	52808-0970	
10	52808-1070	
11	52808-1170	
12	52808-1270	

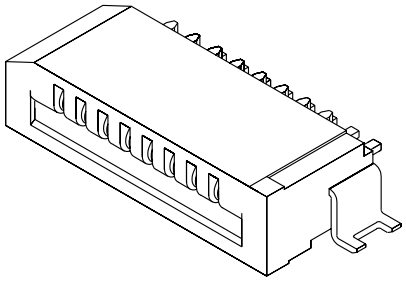
Circuits	Order No.	Lead-free
13	52808-1370	Yes
14	52808-1470	
15	52808-1570	
16	52808-1670	
17	52808-1770	
18	52808-1870	
19	52808-1970	
20	52808-2070	
21	52808-2170	

Circuits	Order No.	Lead-free
22	52808-2270	Yes
23	52808-2370	
24	52808-2470	
25	52808-2570	
26	52808-2670	
27	52808-2770	
28	52808-2870	
29	52808-2970	
30	52808-3070	

1.00mm (.039") Pitch FFC/FPC Connector

52793

Right Angle, SMT, Non-ZIF Top Contact Style



Features and Benefits

- Sizes 4 to 30 circuits
- For 0.30mm thick FFC/FPC
- Fitting nails provide PCB hold-down and strain relief for SMT tails

Reference Information

Product Specification: PS-52793-014
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin Bismuth over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.	Lead-free
4	52793-0470	Yes
5	52793-0570	
6	52793-0670	
7	52793-0770	
8	52793-0870	
9	52793-0970	
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11	52793-1170	
12	52793-1270	

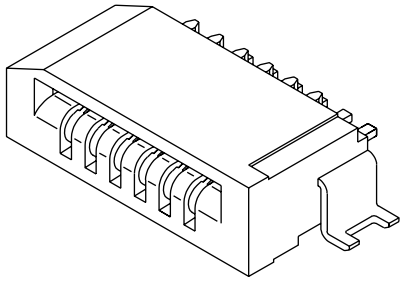
Circuits	Order No.	Lead-free
13	52793-1370	Yes
14	52793-1470	
15	52793-1570	
16	52793-1670	
17	52793-1770	
18	52793-1870	
19	52793-1970	
20	52793-2070	
21	52793-2170	

Circuits	Order No.	Lead-free
22	52793-2270	Yes
23	52793-2370	
24	52793-2470	
25	52793-2570	
26	52793-2670	
27	52793-2770	
28	52793-2870	
29	52793-2970	
30	52793-3070	

1.00mm (.039") Pitch FFC/FPC Connector

52852

Right Angle, SMT, Non-ZIF Bottom Contact Style



Features and Benefits

- Sizes 4 to 30 circuits
- For 0.30mm thick FFC/FPC
- Fitting nails provide PCB hold-down and strain relief for SMT tails

Reference Information

Product Specification: PS-52852-014
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 50V max.
Current: 0.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 50 Megohms min.

Physical

Housing: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin Bismuth over Nickel
Fitting Nail: Phosphor Bronze, Tin over Nickel plating

Circuits	Order No.	Lead-free
4	52852-0470	Yes
5	52852-0570	
6	52852-0670	
7	52852-0770	
8	52852-0870	
9	52852-0970	
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11	52852-1170	
12	52852-1270	

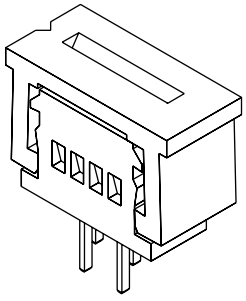
Circuits	Order No.	Lead-free
13	52852-1370	Yes
14	52852-1470	
15	52852-1570	
16	52852-1670	
18	52852-1870	
19	52852-1970	
20	52852-2070	
22	52852-2270	
23	52852-2370	

Circuits	Order No.	Lead-free
24	52852-2470	Yes
25	52852-2570	
26	52852-2670	
27	52852-2770	
28	52852-2870	
29	52852-2970	
30	52852-3070	

1.25mm (.049") Pitch FFC/FPC Connector

5597-NCPB7F

Vertical, ZIF



Features and Benefits

- Sizes 3 to 30 circuits
- Staggered solder tails, 3.50mm (.138") long
- 5597 accommodates FFC/FPC 0.30mm (.012") thick

Reference Information

Product Specification: PS-5597-004
Packaging: Tray
UL File No.: E29179
Designed In: Millimeters

Electrical

Voltage: 2V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 Megohms min.

Physical

Housing: PBTP, UL 94V-0
Actuator: PBTP, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin Bismuth over Nickel

Circuits	Order No.	Lead-free
3	39-53-2035	Yes
4	39-53-2045	
5	39-53-2055	
6	39-53-2065	
7	39-53-2075	
8	39-53-2085	
9	39-53-2095	
10	39-53-2105	
11	39-53-2115	
12	39-53-2125	

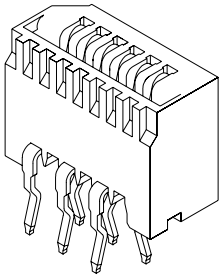
Circuits	Order No.	Lead-free
13	39-53-2135	Yes
14	39-53-2145	
15	39-53-2155	
16	39-53-2165	
17	39-53-2175	
18	39-53-2185	
19	39-53-2195	
20	39-53-2205	
21	39-53-2215	
22	39-53-2225	

Circuits	Order No.	Lead-free
23	39-53-2235	Yes
24	39-53-2245	
25	39-53-2255	
26	39-53-2265	
27	39-53-2275	
28	39-53-2285	
29	39-53-2295	
30	39-53-2305	

1.25mm (.049") Pitch FFC/FPC Connector

52045

Vertical, Non-ZIF



Features and Benefits

- Sizes 3 to 40 circuits
- For 0.30mm thick FFC/FPC
- All solder tails kinked for added PCB retention

Reference Information

Product Specification: PS-52045-001
Packaging: Tray
UL File No.: E29179
Designed In: Millimeters

Electrical

Voltage: 200V max.
Current: 1.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 Megohms min.

Physical

Housing: PBTP, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin

Circuits	Order No.	Lead-free
3	52045-0345	Yes
4	52045-0445	
5	52045-0545	
6	52045-0645	
7	52045-0745	
8	52045-0845	
9	52045-0945	
10	52045-1045	
11	52045-1145	
12	52045-1245	
13	52045-1345	
14	52045-1445	
15	52045-1545	

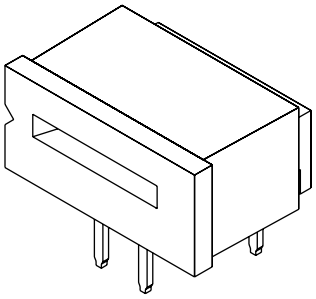
Circuits	Order No.	Lead-free
16	52045-1645	Yes
17	52045-1745	
18	52045-1845	
19	52045-1945	
20	52045-2045	
21	52045-2145	
22	52045-2245	
23	52045-2345	
24	52045-2445	
25	52045-2545	
26	52045-2645	
27	52045-2745	
28	52045-2845	

Circuits	Order No.	Lead-free
29	52045-2945	Yes
30	52045-3045	
31	52045-3145	
32	52045-3245	
33	52045-3345	
34	52045-3445	
35	52045-3545	
36	52045-3645	
37	52045-3745	
38	52045-3845	
39	52045-3945	
40	52045-4045	

1.25mm (.049") Pitch FFC/FPC Connector

5597-NAPB7F

Right Angle, ZIF



Features and Benefits

- Sizes 3 to 30 circuits
- Staggered solder tails, 3.50mm (.138") long
- 5597 accommodates FFC/FPC 0.30mm (.012") thick

Reference Information

Product Specification: PS-5597-004
Packaging: Tray
UL File No.: E29179
Designed In: Millimeters

Electrical

Voltage: 2V max.
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 Megohms min.

Physical

Housing: PBTP, UL 94V-0
Actuator: PBTP, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin Bismuth over Nickel

Circuits	Order No.	Lead-free
3	39-53-2034	Yes
4	39-53-2044	
5	39-53-2054	
6	39-53-2064	
7	39-53-2074	
8	39-53-2084	
9	39-53-2094	
10	39-53-2104	
11	39-53-2114	
12	39-53-2124	

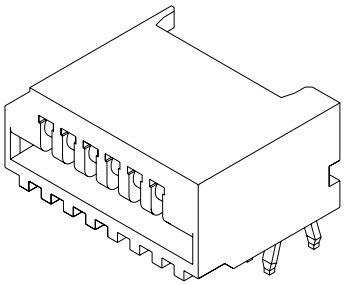
Circuits	Order No.	Lead-free
13	39-53-2134	Yes
14	39-53-2144	
15	39-53-2154	
16	39-53-2164	
17	39-53-2174	
18	39-53-2184	
19	39-53-2194	
20	39-53-2204	
21	39-53-2214	
22	39-53-2224	

Circuits	Order No.	Lead-free
23	39-53-2234	Yes
24	39-53-2244	
25	39-53-2254	
26	39-53-2264	
27	39-53-2274	
28	39-53-2284	
29	39-53-2294	
30	39-53-2304	

1.25mm (.049") Pitch FFC/FPC Connector

52044

Right Angle, Non-ZIF Top Contact Style



Features and Benefits

- Sizes 3 to 40 circuits
- For 0.30mm thick FFC/FPC
- All solder tails kinked for added PCB retention

Reference Information

Product Specification: PS-52044-002
Packaging: Tray
UL File No.: E29179
Designed In: Millimeters

Electrical

Voltage: 200V max.
Current: 1.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 Megohms min.

Physical

Housing: PBTP, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin

www.molex.com/product/ffc/

Circuits	Order No.	Lead-free
3	52044-0345	Yes
4	52044-0445	
5	52044-0545	
6	52044-0645	
7	52044-0745	
8	52044-0845	
9	52044-0945	
10	52044-1045	
11	52044-1145	
12	52044-1245	
13	52044-1345	
14	52044-1445	
15	52044-1545	

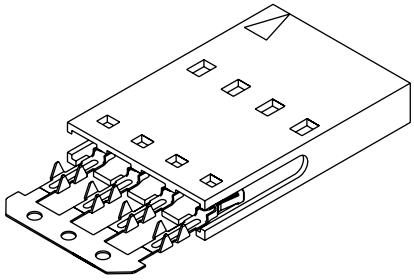
Circuits	Order No.	Lead-free
16	52044-1645	Yes
17	52044-1745	
18	52044-1845	
19	52044-1945	
20	52044-2045	
21	52044-2145	
22	52044-2245	
23	52044-2345	
24	52044-2445	
25	52044-2545	
26	52044-2645	
27	52044-2745	
28	52044-2845	

Circuits	Order No.	Lead-free
29	52044-2945	Yes
30	52044-3045	
31	52044-3145	
32	52044-3245	
33	52044-3345	
34	52044-3445	
35	52044-3545	
36	52044-3645	
37	52044-3745	
38	52044-3845	
39	52044-3945	
40	52044-4045	

2.54mm (.100") Pitch SL™ FFC/FPC Connector

70430

Single Row, Female Version A



Features and Benefits

- Sizes 2 to 25 circuits
- Stackable end-to-end and side-by-side
- Piercing crimp provides 3 high-pressure interfaces with the conductor
- Terminals preloaded into housing

Reference Information

Product Specification: PS-70430
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2.54mm (.100") pitch, single or dual row headers (C-Grid®, SL, KK®)
Designed In: Inches

Electrical

Voltage: 250V
Current: 2.0A (for Copper conductors)
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 13.34N (3 lb) min.
Mating Force: 2.22N (.50 lb) max.
Unmating Force: 0.28N (.06 lb) min.
Wire Pull-Out Force: 26.69N (6 lb)
Durability: Tin—25 cycles; Gold—50 cycles

Physical

Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table

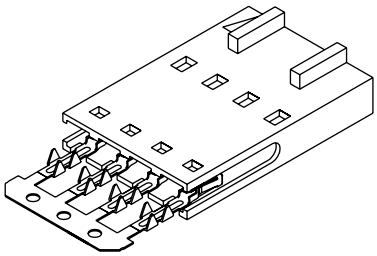
Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
2	15-38-8028	15-47-4020	15-47-4024	Yes
3	15-38-8038	15-47-4030	15-47-4034	
4	15-38-8048	15-47-4040	15-47-4044	
5	15-38-8058	15-47-4050	15-47-4054	
6	15-38-8068	15-47-4060	15-47-4064	
7	15-38-8078	15-47-4070	15-47-4074	
8	15-38-8088	15-47-4080	15-47-4084	
9	15-38-8098	15-47-4090	15-47-4094	
10	15-38-8108	15-47-4100	15-47-4104	
11	15-38-8118	15-47-4110	15-47-4114	
12	15-38-8128	15-47-4120	15-47-4124	
13	15-38-8138	15-47-4130	15-47-4134	

Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
14	15-38-8148	15-47-4140	15-47-4144	Yes
15	15-38-8158	15-47-4150	15-47-4154	
16	15-38-8168	15-47-4160	15-47-4164	
17	15-38-8178	15-47-4170	15-47-4174	
18	15-38-8188	15-47-4180	15-47-4184	
19	15-38-8198	15-47-4190	15-47-4194	
20	15-38-8208	15-47-4200	15-47-4204	
21	15-38-8218	15-47-4210	15-47-4214	
22	15-38-8228	15-47-4220	15-47-4224	
23	15-38-8238	15-47-4230	15-47-4234	
24	15-38-8248	15-47-4240	15-47-4244	
25	15-38-8258	15-47-4250	15-47-4254	

2.54mm (.100") Pitch SL™ FFC/FPC Connector

70430

Single Row, Female Version C



Features and Benefits

- Sizes 2 to 25 circuits
- Front polarizing ribs prevent pin damage during disconnect, housing cannot be twisted off pins
- Piercing crimp provides 3 high-pressure interfaces with the conductor
- Terminals preloaded into housing

Reference Information

Product Specification: PS-70430
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 2.54mm (.100") SL headers
Designed In: Inches

Electrical

Voltage: 250V
Current: 2.0A (for Copper conductors)
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 13.34N (3 lb) min.
Mating Force: 2.22N (.50 lb) max.
Unmating Force: 0.28N (.06 lb) min.
Wire Pull-Out Force: 26.69N (6 lb)
Durability: Tin—25 cycles; Gold—50 cycles

Physical

Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table

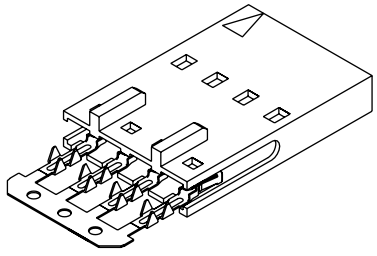
Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
2	15-38-8027	15-47-4021	15-47-4025	Yes
3	15-38-8037	15-47-4031	15-47-4035	
4	15-38-8047	15-47-4041	15-47-4045	
5	15-38-8057	15-47-4051	15-47-4055	
6	15-38-8067	15-47-4061	15-47-4065	
7	15-38-8077	15-47-4071	15-47-4075	
8	15-38-8087	15-47-4081	15-47-4085	
9	15-38-8097	15-47-4091	15-47-4095	
10	15-38-8107	15-47-4101	15-47-4105	
11	15-38-8117	15-47-4111	15-47-4115	
12	15-38-8127	15-47-4121	15-47-4125	
13	15-38-8137	15-47-4131	15-47-4135	

Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
14	15-38-8147	15-47-4141	15-47-4145	Yes
15	15-38-8157	15-47-4151	15-47-4155	
16	15-38-8167	15-47-4161	15-47-4165	
17	15-38-8177	15-47-4171	15-47-4175	
18	15-38-8187	15-47-4181	15-47-4185	
19	15-38-8197	15-47-4191	15-47-4195	
20	15-38-8207	15-47-4201	15-47-4205	
21	15-38-8217	15-47-4211	15-47-4215	
22	15-38-8227	15-47-4221	15-47-4225	
23	15-38-8237	15-47-4231	15-47-4235	
24	15-38-8247	15-47-4241	15-47-4245	
25	15-38-8257	15-47-4251	15-47-4255	

2.54mm (.100") Pitch SL™ FFC/FPC Connector

70430

Single Row, Female Version D



Features and Benefits

- Sizes 2 to 25 circuits
- Designed for use within interim clips and panel mount connectors to form a larger single mating connector
- Stackable end-to-end and back-to-back
- Back polarizing ribs prevent the assembly from drifting within the interim clip when another module is removed
- Piercing crimp provides 3 high-pressure interfaces with the conductor
- Terminals preloaded into housing

Reference Information

Product Specification: PS-70430
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Accessories: Interim clips 70004 and 70013 to form female connector assembly
Mates With: 70021 male crimp terminals, 70400 and 70430 connector assemblies and 0.64mm (.025") square pins
Designed In: Inches

Electrical

Voltage: 250V
Current: 2.0A (for Copper conductors)
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 13.34N (3 lb) min.
Mating Force: 2.22N (.50 lb) max.
Unmating Force: 0.28N (.06 lb) min.
Wire Pull-Out Force: 26.69N (6 lb)
Durability: Tin—25 cycles; Gold—50 cycles

Physical

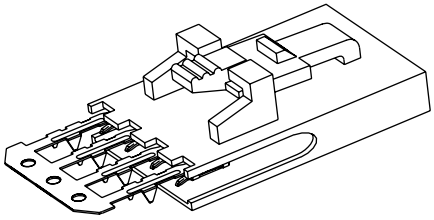
Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table

Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
2	15-38-8029	15-47-4022	15-47-4026	Yes
3	15-38-8039	15-47-4032	15-47-4036	
4	15-38-8049	15-47-4042	15-47-4046	
5	15-38-8059	15-47-4052	15-47-4056	
6	15-38-8069	15-47-4062	15-47-4066	
7	15-38-8079	15-47-4072	15-47-4076	
8	15-38-8089	15-47-4082	15-47-4086	
9	15-38-8099	15-47-4092	15-47-4096	
10	15-38-8109	15-47-4102	15-47-4106	
11	15-38-8119	15-47-4112	15-47-4116	
12	15-38-8129	15-47-4122	15-47-4126	
13	15-38-8139	15-47-4132	15-47-4136	

Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
14	15-38-8149	15-47-4142	15-47-4146	Yes
15	15-38-8157	15-47-4152	15-47-4156	
16	15-38-8169	15-47-4162	15-47-4166	
17	15-38-8179	15-47-4172	15-47-4176	
18	15-38-8189	15-47-4182	15-47-4186	
19	15-38-8199	15-47-4192	15-47-4196	
20	15-38-8209	15-47-4202	15-47-4206	
21	15-38-8219	15-47-4212	15-47-4216	
22	15-38-8229	15-47-4222	15-47-4226	
23	15-38-8239	15-47-4232	15-47-4236	
24	15-38-8249	15-47-4242	15-47-4246	
25	15-38-8259	15-47-4252	15-47-4256	

2.54mm (.100") Pitch SL™ FFC/FPC Connector

70430
Single Row, Female
Version G



Features and Benefits
- Sizes 2 to 25 circuits
- Positive latch locks connector to header or panel mount
- Piercing crimp provides 3 high-pressure interfaces with the conductor
- Terminals preloaded into housing

Reference Information
Product Specification: PS-70430
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70018, 70107A/B, 70541, 70543, 70545, 70551, 70553, 70555, 70634 and 74099
Designed In: Inches

Electrical
Voltage: 250V
Current: 2.0A (for Copper conductors)
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 13.34N (3 lb) min.
Mating Force: 2.22N (.50 lb) max.
Unmating Force: 0.28N (.06 lb) min.
Wire Pull-Out Force: 26.69N (6 lb)
Durability: Tin—25 cycles; Gold—50 cycles

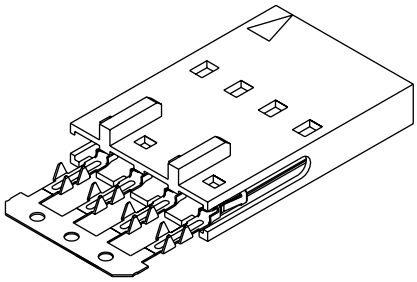
Physical
Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table

Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
2	15-38-8020	15-47-4023	15-47-4027	Yes
3	15-38-8030	15-47-4033	15-47-4037	
4	15-38-8040	15-47-4043	15-47-4047	
5	15-38-8050	15-47-4053	15-47-4057	
6	15-38-8060	15-47-4063	15-47-4067	
7	15-38-8070	15-47-4073	15-47-4077	
8	15-38-8080	15-47-4083	15-47-4087	
9	15-38-8090	15-47-4093	15-47-4097	
10	15-38-8100	15-47-4103	15-47-4107	
11	15-38-8110	15-47-4113	15-47-4117	
12	15-38-8120	15-47-4123	15-47-4127	
13	15-38-8130	15-47-4133	15-47-4137	

Circuits	Order No.			Lead-free
	150µ" Tin	15µ" Gold	30µ" Gold	
14	15-38-8140	15-47-4143	15-47-4147	Yes
15	15-38-8150	15-47-4153	15-47-4157	
16	15-38-8160	15-47-4163	15-47-4167	
17	15-38-8170	15-47-4173	15-47-4177	
18	15-38-8180	15-47-4183	15-47-4187	
19	15-38-8190	15-47-4193	15-47-4197	
20	15-38-8200	15-47-4203	15-47-4207	
21	15-38-8210	15-47-4213	15-47-4217	
22	15-38-8220	15-47-4223	15-47-4227	
23	15-38-8230	15-47-4233	15-47-4237	
24	15-38-8240	15-47-4243	15-47-4247	
25	15-38-8250	15-47-4253	15-47-4257	

2.54mm (.100") Pitch SL™ FFC/FPC Connector

70431
Single Row, Male
Version D



Features and Benefits
- Sizes 2 to 25 circuits
- Stackable end-to-end and back-to-back
- Back ribs prevent movement when used within panel mount housings
- Piercing crimp provides 3 high-pressure interfaces with the conductor
- Terminals preloaded into housing

Reference Information
Product Specification: PS-70431
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Accessories: Panel mount connectors 70018, 70022 and 70104 to form a male pin assembly
Mates With: 70058 and 71851 female crimp terminals, 70400 and 70430 connector assemblies and 0.64mm (.025") square pins
Designed In: Inches

Electrical
Voltage: 250V
Current: 2.0A (for Copper conductors)
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 1000 Megohms min.

Mechanical
Wire Pull-Out Force: 26.69N (6 lb)
Mating Force: 2.22N (.50 lb) max.
Unmating Force: 0.28N (.06 lb) min.
Durability: Tin—25 cycles; Gold—50 cycles

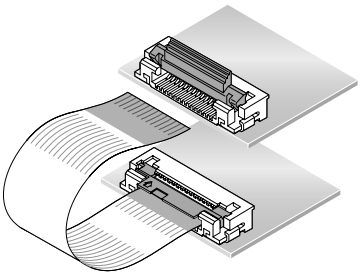
Physical
Housing: Black polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table

Circuits	Order No.		
	15µ" Gold	30µ" Gold	150µ" Tin
2	15-47-5020	15-47-5024	15-38-9022
3	15-47-5030	15-47-5034	15-38-9032
4	15-47-5040	15-47-5044	15-38-9042
5	15-47-5050	15-47-5054	15-38-9052
6	15-47-5060	15-47-5064	15-38-9062
7	15-47-5070	15-47-5074	15-38-9072
8	15-47-5080	15-47-5084	15-38-9082
9	15-47-5090	15-47-5094	15-38-9092
10	15-47-5100	15-47-5104	15-38-9102
11	15-47-5110	15-47-5114	15-38-9112
12	15-47-5120	15-47-5124	15-38-9122
13	15-47-5130	15-47-5134	15-38-9132

Circuits	Order No.		
	15µ" Gold	30µ" Gold	150µ" Tin
14	15-47-5140	15-47-5144	15-38-9142
15	15-47-5150	15-47-5154	15-38-9152
16	15-47-5160	15-47-5164	15-38-9162
17	15-47-5170	15-47-5174	15-38-9172
18	15-47-5180	15-47-5184	15-38-9182
19	15-47-5190	15-47-5194	15-38-9192
20	15-47-5200	15-47-5204	15-38-9202
21	15-47-5210	15-47-5214	15-38-9212
22	15-47-5220	15-47-5224	15-38-9222
23	15-47-5230	15-47-5234	15-38-9232
24	15-47-5240	15-47-5244	15-38-9242
25	15-47-5250	15-47-5254	15-38-9252

0.50mm (.020") Pitch Premo-Flex™ Flat Flex Cable Jumpers

21020
Standard



Molex introduces a complete line of 0.50mm (.020") pitch Flat Flex Cable jumpers. These jumpers are used to connect 2 PC boards and terminate to either ZIF or Non-ZIF FFC Connectors.

Molex 0.50mm (.020") Flat Flex Cable jumpers are available in a wide variety of lengths and circuit sizes. These standard lengths are easy to order and feature shorter lead times.

Reference Information
UL Style No.: 2896
Mates With: Any 0.50mm (.020") pitch Molex FFC/FPC connector
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 0.5A

Physical
Strip Length: 4.0mm (.157")
Reinforcement Length: 6.00mm (.236")
Width: (N + 1) 0.50mm
Span: (N - 1) 0.50mm
Margin: 0.35mm (.014")
Conductor Width: 0.30mm (.012")
Conductor Thickness: 0.10mm (.004")
End Thickness: 0.30 ± 0.05mm (.012 ± .002")

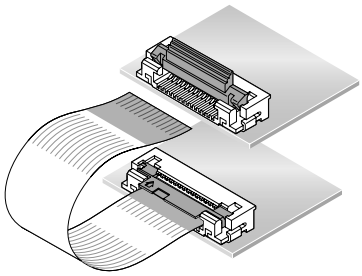
Type A FFC Jumpers—Contacts on same side (Preferred version in North America)

Circuits	Order No. — Overall Length											Lead-free
	30.00mm (1.181")	51.00mm (2.00")	76.00mm (3.00")	102.00mm (4.00")	127.00mm (5.00")	152.00mm (6.00")	178.00mm (7.00")	203.00mm (8.00")	229.00mm (9.00")	254.00mm (10.00")	305.00mm (12.00")	
6	21020-0051	21020-0053	21020-0055	21020-0057	21020-0059	21020-0061	21020-0063	21020-0065	21020-0067	21020-0069	21020-0071	
7	21020-0745	21020-0747	21020-0749	21020-0751	21020-0753	21020-0755	21020-0757	21020-0759	21020-0761	21020-0763	21020-0765	
8	21020-0073	21020-0075	21020-0077	21020-0079	21020-0081	21020-0083	21020-0085	21020-0087	21020-0089	21020-0091	21020-0093	
9	21020-0767	21020-0769	21020-0771	21020-0773	21020-0775	21020-0777	21020-0779	21020-0781	21020-0783	21020-0785	21020-0787	
10	21020-0095	21020-0097	21020-0099	21020-0101	21020-0103	21020-0105	21020-0107	21020-0109	21020-0111	21020-0113	21020-0115	
11	21020-0789	21020-0791	21020-0793	21020-0795	21020-0797	21020-0799	21020-0801	21020-0803	21020-0805	21020-0807	21020-0809	
12	21020-0117	21020-0119	21020-0121	21020-0123	21020-0125	21020-0127	21020-0129	21020-0131	21020-0133	21020-0135	21020-0137	
13	21020-0811	21020-0813	21020-0815	21020-0817	21020-0819	21020-0821	21020-0823	21020-0825	21020-0827	21020-0829	21020-0831	
14	21020-0139	21020-0141	21020-0143	21020-0145	21020-0147	21020-0149	21020-0151	21020-0153	21020-0155	21020-0157	21020-0159	
15	21020-0833	21020-0835	21020-0837	21020-0839	21020-0841	21020-0843	21020-0845	21020-0847	21020-0849	21020-0851	21020-0853	
16	21020-0161	21020-0163	21020-0165	21020-0167	21020-0169	21020-0171	21020-0173	21020-0175	21020-0177	21020-0179	21020-0181	
17	21020-0855	21020-0857	21020-0859	21020-0861	21020-0863	21020-0865	21020-0867	21020-0869	21020-0871	21020-0873	21020-0875	
18	21020-0183	21020-0185	21020-0187	21020-0189	21020-0191	21020-0193	21020-0195	21020-0197	21020-0199	21020-0201	21020-0203	
19	21020-0877	21020-0879	21020-0881	21020-0883	21020-0885	21020-0887	21020-0889	21020-0891	21020-0893	21020-0895	21020-0897	
20	21020-0205	21020-0207	21020-0209	21020-0211	21020-0213	21020-0215	21020-0217	21020-0219	21020-0221	21020-0223	21020-0225	
21	21020-0899	21020-0901	21020-0903	21020-0905	21020-0907	21020-0909	21020-0911	21020-0913	21020-0915	21020-0917	21020-0919	
22	21020-0227	21020-0229	21020-0231	21020-0233	21020-0235	21020-0237	21020-0239	21020-0241	21020-0243	21020-0245	21020-0247	
23	21020-0921	21020-0923	21020-0925	21020-0927	21020-0929	21020-0931	21020-0933	21020-0935	21020-0937	21020-0939	21020-0941	Yes
24	21020-0249	21020-0251	21020-0253	21020-0255	21020-0257	21020-0259	21020-0261	21020-0263	21020-0265	21020-0267	21020-0269	
25	21020-0943	21020-0945	21020-0947	21020-0949	21020-0951	21020-0953	21020-0955	21020-0957	21020-0959	21020-0961	21020-0963	
26	21020-0271	21020-0273	21020-0275	21020-0277	21020-0279	21020-0281	21020-0283	21020-0285	21020-0287	21020-0289	21020-0291	
27	21020-0965	21020-0967	21020-0969	21020-0971	21020-0973	21020-0975	21020-0977	21020-0979	21020-0981	21020-0983	21020-0985	
28	21020-0293	21020-0295	21020-0297	21020-0299	21020-0301	21020-0303	21020-0305	21020-0307	21020-0309	21020-0311	21020-0313	
29	21020-0987	21020-0989	21020-0991	21020-0993	21020-0995	21020-0997	21020-0999	21020-1001	21020-1003	21020-1005	21020-1007	
30	21020-0315	21020-0317	21020-0319	21020-0321	21020-0323	21020-0325	21020-0327	21020-0329	21020-0331	21020-0333	21020-0335	
31	21020-1009	21020-1011	21020-1013	21020-1015	21020-1017	21020-1019	21020-1021	21020-1023	21020-1025	21020-1027	21020-1029	
32	21020-0337	21020-0339	21020-0341	21020-0343	21020-0345	21020-0347	21020-0349	21020-0351	21020-0353	21020-0355	21020-0357	
33	21020-1031	21020-1033	21020-1035	21020-1037	21020-1039	21020-1041	21020-1043	21020-1045	21020-1047	21020-1049	21020-1051	
34	21020-0359	21020-0361	21020-0363	21020-0365	21020-0367	21020-0369	21020-0371	21020-0373	21020-0375	21020-0377	21020-0379	
35	21020-1053	21020-1055	21020-1057	21020-1059	21020-1061	21020-1063	21020-1065	21020-1067	21020-1069	21020-1071	21020-1073	
36	21020-0381	21020-0383	21020-0385	21020-0387	21020-0389	21020-0391	21020-0393	21020-0395	21020-0397	21020-0399	21020-0401	
37	21020-1075	21020-1077	21020-1079	21020-1081	21020-1083	21020-1085	21020-1087	21020-1089	21020-1091	21020-1093	21020-1095	
38	21020-0403	21020-0405	21020-0407	21020-0409	21020-0411	21020-0413	21020-0415	21020-0417	21020-0419	21020-0421	21020-0423	
39	21020-1097	21020-1099	21020-1101	21020-1103	21020-1105	21020-1107	21020-1109	21020-1111	21020-1113	21020-1115	21020-1117	
40	21020-0425	21020-0427	21020-0429	21020-0431	21020-0433	21020-0435	21020-0437	21020-0439	21020-0441	21020-0443	21020-0445	

Custom jumpers available

0.50mm (.020") Pitch Premo-Flex™ Flat Flex Cable Jumpers

21020
Standard



Molex introduces a complete line of 0.50mm (.020") pitch Flat Flex Cable jumpers. These jumpers are used to connect 2 PC boards and terminate to either ZIF or Non-ZIF FFC Connectors.

Molex 0.50mm (.020") Flat Flex Cable jumpers are available in a wide variety of lengths and circuit sizes. These standard lengths are easy to order and feature shorter lead times.

Reference Information
UL Style No.: 2896
Mates With: Any 0.50mm (.020") pitch Molex FFC/FPC connector
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 0.5A

Physical
Strip Length: 4.0mm (.157")
Reinforcement Length: 6.00mm (.236")
Width: (N + 1) 0.50mm
Span: (N - 1) 0.50mm
Margin: 0.35mm (.014")
Conductor Width: 0.30mm (.012")
Conductor Thickness: 0.10mm (.004")
End Thickness: 0.30 ± 0.05mm (.012 ± .002")

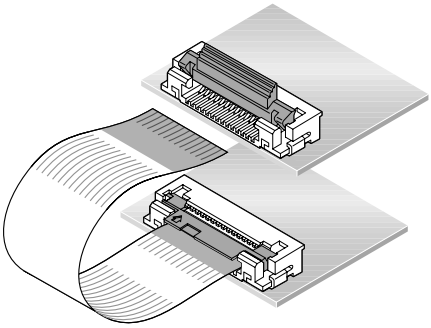
Type D FFC Jumpers—Contacts on opposite sides (Preferred version in North America)

Circuits	Order No. Overall Length											Lead-free
	30.00mm (1.181")	51.00mm (2.00")	76.00mm (3.00")	102.00mm (4.00")	127.00mm (5.00")	152.00mm (6.00")	178.00mm (7.00")	203.00mm (8.00")	229.00mm (9.00")	254.00mm (10.00")	305.00mm (12.00")	
6	21020-0052	21020-0054	21020-0056	21020-0058	21020-0060	21020-0062	21020-0064	21020-0066	21020-0068	21020-0070	21020-0072	
7	21020-0744	21020-0746	21020-0748	21020-0750	21020-0752	21020-0754	21020-0756	21020-0758	21020-0760	21020-0762	21020-0764	
8	21020-0074	21020-0076	21020-0078	21020-0080	21020-0082	21020-0084	21020-0086	21020-0088	21020-0090	21020-0092	21020-0094	
9	21020-0766	21020-0768	21020-0770	21020-0772	21020-0774	21020-0776	21020-0778	21020-0780	21020-0782	21020-0784	21020-0786	
10	21020-0096	21020-0098	21020-0100	21020-0102	21020-0104	21020-0106	21020-0108	21020-0110	21020-0112	21020-0114	21020-0116	
11	21020-0788	21020-0790	21020-0792	21020-0794	21020-0796	21020-0798	21020-0800	21020-0802	21020-0804	21020-0806	21020-0808	
12	21020-0118	21020-0120	21020-0122	21020-0124	21020-0126	21020-0128	21020-0130	21020-0132	21020-0134	21020-0136	21020-0138	
13	21020-0810	21020-0812	21020-0814	21020-0816	21020-0818	21020-0820	21020-0822	21020-0824	21020-0826	21020-0828	21020-0830	
14	21020-0140	21020-0142	21020-0144	21020-0146	21020-0148	21020-0150	21020-0152	21020-0154	21020-0156	21020-0158	21020-0160	
15	21020-0832	21020-0834	21020-0836	21020-0838	21020-0840	21020-0842	21020-0844	21020-0846	21020-0848	21020-0850	21020-0852	
16	21020-0162	21020-0164	21020-0166	21020-0168	21020-0170	21020-0172	21020-0174	21020-0176	21020-0178	21020-0180	21020-0182	
17	21020-0854	21020-0856	21020-0858	21020-0860	21020-0862	21020-0864	21020-0866	21020-0868	21020-0870	21020-0872	21020-0874	
18	21020-0184	21020-0186	21020-0188	21020-0190	21020-0192	21020-0194	21020-0196	21020-0198	21020-0200	21020-0202	21020-0204	
19	21020-0876	21020-0878	21020-0880	21020-0882	21020-0884	21020-0886	21020-0888	21020-0890	21020-0892	21020-0894	21020-0896	
20	21020-0206	21020-0208	21020-0210	21020-0212	21020-0214	21020-0216	21020-0218	21020-0220	21020-0222	21020-0224	21020-0226	
21	21020-0898	21020-0900	21020-0902	21020-0904	21020-0906	21020-0908	21020-0910	21020-0912	21020-0914	21020-0916	21020-0918	
22	21020-0228	21020-0230	21020-0232	21020-0234	21020-0236	21020-0238	21020-0240	21020-0242	21020-0244	21020-0246	21020-0248	
23	21020-0920	21020-0922	21020-0924	21020-0926	21020-0928	21020-0930	21020-0932	21020-0934	21020-0936	21020-0938	21020-0940	Yes
24	21020-0250	21020-0252	21020-0254	21020-0256	21020-0258	21020-0260	21020-0262	21020-0264	21020-0266	21020-0268	21020-0270	
25	21020-0942	21020-0944	21020-0946	21020-0948	21020-0950	21020-0952	21020-0954	21020-0956	21020-0958	21020-0960	21020-0962	
26	21020-0272	21020-0274	21020-0276	21020-0278	21020-0280	21020-0282	21020-0284	21020-0286	21020-0288	21020-0290	21020-0292	
27	21020-0964	21020-0966	21020-0968	21020-0970	21020-0972	21020-0974	21020-0976	21020-0978	21020-0980	21020-0982	21020-0984	
28	21020-0294	21020-0296	21020-0298	21020-0300	21020-0302	21020-0304	21020-0306	21020-0308	21020-0310	21020-0312	21020-0314	
29	21020-0986	21020-0988	21020-0990	21020-0992	21020-0994	21020-0996	21020-0998	21020-1000	21020-1002	21020-1004	21020-1006	
30	21020-0316	21020-0318	21020-0320	21020-0322	21020-0324	21020-0326	21020-0328	21020-0330	21020-0332	21020-0334	21020-0336	
31	21020-1008	21020-1010	21020-1012	21020-1014	21020-1016	21020-1018	21020-1020	21020-1022	21020-1024	21020-1026	21020-1028	
32	21020-0338	21020-0340	21020-0342	21020-0344	21020-0346	21020-0348	21020-0350	21020-0352	21020-0354	21020-0356	21020-0358	
33	21020-1030	21020-1032	21020-1034	21020-1036	21020-1038	21020-1040	21020-1042	21020-1044	21020-1046	21020-1048	21020-1050	
34	21020-0360	21020-0362	21020-0364	21020-0366	21020-0368	21020-0370	21020-0372	21020-0374	21020-0376	21020-0378	21020-0380	
35	21020-1052	21020-1054	21020-1056	21020-1058	21020-1060	21020-1062	21020-1064	21020-1066	21020-1068	21020-1070	21020-1072	
36	21020-0382	21020-0384	21020-0386	21020-0388	21020-0390	21020-0392	21020-0394	21020-0396	21020-0398	21020-0400	21020-0402	
37	21020-1074	21020-1076	21020-1078	21020-1080	21020-1082	21020-1084	21020-1086	21020-1088	21020-1090	21020-1092	21020-1094	
38	21020-0404	21020-0406	21020-0408	21020-0410	21020-0412	21020-0414	21020-0416	21020-0418	21020-0420	21020-0422	21020-0424	
39	21020-1096	21020-1098	21020-1100	21020-1102	21020-1104	21020-1106	21020-1108	21020-1110	21020-1112	21020-1114	21020-1116	
40	21020-0426	21020-0428	21020-0430	21020-0432	21020-0434	21020-0436	21020-0438	21020-0440	21020-0442	21020-0444	21020-0446	

Custom jumpers available

0.50mm (.020") Pitch Premo-Flex™ Flat Flex Cable Jumpers

98266
Standard



Molex introduces a complete line of 0.50mm (.020") pitch Flat Flex Cable jumpers. These jumpers are used to connect 2 PC boards and terminate to either ZIF or Non-ZIF FFC connectors.

Molex 0.50mm (.020") Flat Flex Cable jumpers are available in a wide variety of lengths and circuit sizes. These standard lengths are easy to order and feature shorter lead times.

We are also able to offer customized lengths and circuit sizes.

Reference Information

Product Specification: PS-98266-001
Packaging: Box
UL Style No.: 20706
Mates With: Any 0.50mm (.020") pitch Molex FFC/FPC connector
Designed In: Millimeters

Electrical

Voltage: 60V
Current: 0.5A

Physical

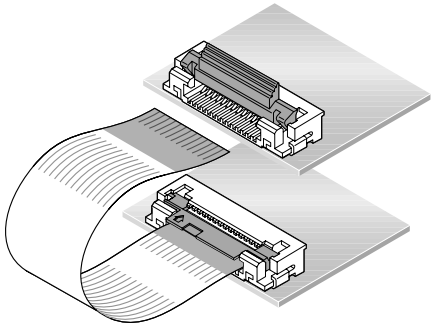
Strip Length: 4.0mm (.157")
Reinforcement Length: 8.0mm (.315")
Width: (N + 1) 0.50mm
Span: (N - 1) 0.50mm
Margin: 0.35mm (.014")
Conductor Width: 0.30mm (.012")
Conductor Thickness: 0.10mm (.004")
End Thickness: 0.30 ± 0.05mm (.012 ± .002")

Type A Jumpers—Contacts on same side (Preferred version in Europe)

Circuits	Order No. Overall Length											Lead-free
	30mm (1.181")	5 mm (2.00")	76mm (3.00")	102mm (4.00")	127mm (5.00")	152mm (6.00")	178mm (7.00")	203mm (8.00")	229mm (9.00")	254mm (10.00")	305mm (12.00")	
6	98266-0051	98266-0053	98266-0055	98266-0057	98266-0059	98266-0061	98266-0063	98266-0065	98266-0067	98266-0069	98266-0071	
7	98266-0745	98266-0747	98266-0749	98266-0751	98266-0753	98266-0755	98266-0757	98266-0759	98266-0761	98266-0763	98266-0765	
8	98266-0073	98266-0075	98266-0077	98266-0079	98266-0081	98266-0083	98266-0085	98266-0087	98266-0089	98266-0091	98266-0093	
9	98266-0767	98266-0769	98266-0771	98266-0773	98266-0775	98266-0777	98266-0779	98266-0781	98266-0783	98266-0785	98266-0787	
10	98266-0095	98266-0097	98266-0099	98266-0101	98266-0103	98266-0105	98266-0107	98266-0109	98266-0111	98266-0113	98266-0115	
11	98266-0789	98266-0791	98266-0793	98266-0795	98266-0797	98266-0799	98266-0801	98266-0803	98266-0805	98266-0807	98266-0809	
12	98266-0117	98266-0119	98266-0121	98266-0123	98266-0125	98266-0127	98266-0129	98266-0131	98266-0133	98266-0135	98266-0137	
13	98266-0811	98266-0813	98266-0815	98266-0817	98266-0819	98266-0821	98266-0823	98266-0825	98266-0827	98266-0829	98266-0831	
14	98266-0139	98266-0141	98266-0143	98266-0145	98266-0147	98266-0149	98266-0151	98266-0153	98266-0155	98266-0157	98266-0159	
15	98266-0833	98266-0835	98266-0837	98266-0839	98266-0841	98266-0843	98266-0845	98266-0847	98266-0849	98266-0851	98266-0853	
16	98266-0161	98266-0163	98266-0165	98266-0167	98266-0169	98266-0171	98266-0173	98266-0175	98266-0177	98266-0179	98266-0181	
17	98266-0855	98266-0857	98266-0859	98266-0861	98266-0863	98266-0865	98266-0867	98266-0869	98266-0871	98266-0873	98266-0875	
18	98266-0183	98266-0185	98266-0187	98266-0189	98266-0191	98266-0193	98266-0195	98266-0197	98266-0199	98266-0201	98266-0203	
19	98266-0877	98266-0879	98266-0881	98266-0883	98266-0885	98266-0887	98266-0889	98266-0891	98266-0893	98266-0895	98266-0897	
20	98266-0205	98266-0207	98266-0209	98266-0211	98266-0213	98266-0215	98266-0217	98266-0219	98266-0221	98266-0223	98266-0225	
21	98266-0899	98266-0901	98266-0903	98266-0905	98266-0907	98266-0909	98266-0911	98266-0913	98266-0915	98266-0917	98266-0919	
22	98266-0227	98266-0229	98266-0231	98266-0233	98266-0235	98266-0237	98266-0239	98266-0241	98266-0243	98266-0245	98266-0247	
23	98266-0921	98266-0923	98266-0925	98266-0927	98266-0929	98266-0931	98266-0933	98266-0935	98266-0937	98266-0939	98266-0941	
24	98266-0249	98266-0251	98266-0253	98266-0255	98266-0257	98266-0259	98266-0261	98266-0263	98266-0265	98266-0267	98266-0269	
25	98266-0943	98266-0945	98266-0947	98266-0949	98266-0951	98266-0953	98266-0955	98266-0957	98266-0959	98266-0961	98266-0963	
26	98266-0271	98266-0273	98266-0275	98266-0277	98266-0279	98266-0281	98266-0283	98266-0285	98266-0287	98266-0289	98266-0291	
27	98266-0965	98266-0967	98266-0969	98266-0971	98266-0973	98266-0975	98266-0977	98266-0979	98266-0981	98266-0983	98266-0985	
28	98266-0293	98266-0295	98266-0297	98266-0299	98266-0301	98266-0303	98266-0305	98266-0307	98266-0309	98266-0311	98266-0313	Yes
29	98266-0987	98266-0989	98266-0991	98266-0993	98266-0995	98266-0997	98266-0999	98266-1001	98266-1003	98266-1005	98266-1007	
30	98266-0315	98266-0317	98266-0319	98266-0321	98266-0323	98266-0325	98266-0327	98266-0329	98266-0331	98266-0333	98266-0335	
31	98266-1009	98266-1011	98266-1013	98266-1015	98266-1017	98266-1019	98266-1021	98266-1023	98266-1025	98266-1027	98266-1029	
32	98266-0337	98266-0339	98266-0341	98266-0343	98266-0345	98266-0347	98266-0349	98266-0351	98266-0353	98266-0355	98266-0357	
33	98266-1031	98266-1033	98266-1035	98266-1037	98266-1039	98266-1041	98266-1043	98266-1045	98266-1047	98266-1049	98266-1051	
34	98266-0359	98266-0361	98266-0363	98266-0365	98266-0367	98266-0369	98266-0371	98266-0373	98266-0375	98266-0377	98266-0379	
35	98266-1053	98266-1055	98266-1057	98266-1059	98266-1061	98266-1063	98266-1065	98266-1067	98266-1069	98266-1071	98266-1073	
36	98266-0381	98266-0383	98266-0385	98266-0387	98266-0389	98266-0391	98266-0393	98266-0395	98266-0397	98266-0399	98266-0401	
37	98266-1075	98266-1077	98266-1079	98266-1081	98266-1083	98266-1085	98266-1087	98266-1089	98266-1091	98266-1093	98266-1095	
38	98266-0403	98266-0405	98266-0407	98266-0409	98266-0411	98266-0413	98266-0415	98266-0417	98266-0419	98266-0421	98266-0423	
39	98266-1097	98266-1099	98266-1101	98266-1103	98266-1105	98266-1107	98266-1109	98266-1111	98266-1113	98266-1115	98266-1117	
40	98266-0425	98266-0427	98266-0429	98266-0431	98266-0433	98266-0435	98266-0437	98266-0439	98266-0441	98266-0443	98266-0445	
41	98266-1119	98266-1121	98266-1123	98266-1125	98266-1127	98266-1129	98266-1131	98266-1133	98266-1135	98266-1137	98266-1139	
42	98266-0447	98266-0449	98266-0451	98266-0453	98266-0455	98266-0457	98266-0459	98266-0461	98266-0463	98266-0465	98266-0467	
43	98266-1141	98266-1143	98266-1145	98266-1147	98266-1149	98266-1151	98266-1153	98266-1155	98266-1157	98266-1159	98266-1161	
44	98266-0469	98266-0471	98266-0473	98266-0475	98266-0477	98266-0479	98266-0481	98266-0483	98266-0485	98266-0487	98266-0489	
45	98266-1163	98266-1165	98266-1167	98266-1169	98266-1171	98266-1173	98266-1175	98266-1177	98266-1179	98266-1181	98266-1183	
46	98266-0491	98266-0493	98266-0495	98266-0497	98266-0499	98266-0501	98266-0503	98266-0505	98266-0507	98266-0509	98266-0511	
47	98266-1185	98266-1187	98266-1189	98266-1191	98266-1193	98266-1195	98266-1197	98266-1199	98266-1201	98266-1203	98266-1205	
48	98266-0513	98266-0515	98266-0517	98266-0519	98266-0521	98266-0523	98266-0525	98266-0527	98266-0529	98266-0531	98266-0533	
49	98266-1207	98266-1209	98266-1211	98266-1213	98266-1215	98266-1217	98266-1219	98266-1221	98266-1223	98266-1225	98266-1227	
50	98266-0535	98266-0537	98266-0539	98266-0541	98266-0543	98266-0545	98266-0547	98266-0549	98266-0551	98266-0553	98266-0555	

0.50mm (.020") Pitch Premo-Flex™ Flat Flex Cable Jumpers

98266
Standard



Molex introduces a complete line of 0.50mm (.020") pitch Flat Flex Cable jumpers. These jumpers are used to connect 2 PC boards and terminate to either ZIF or Non-ZIF FFC connectors.

Molex 0.50mm (.020") Flat Flex Cable jumpers are available in a wide variety of lengths and circuit sizes. These standard lengths are easy to order and feature shorter lead times.

We are also able to offer customized lengths and circuit sizes.

Reference Information
Product Specification: PS-98266-001
Packaging: Box
UL Style No.: 20706
Mates With: Any 0.50mm (.020") Pitch Molex FFC/FPC connector
Designed In: Millimeters

Electrical
Voltage: 60V
Current: 0.5A

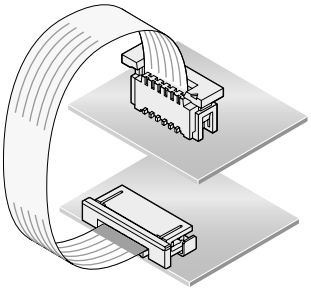
Physical
Strip Length: 4.0mm (.157")
Reinforcement Length: 8.0mm (.315")
Width: (N + 1) 0.50mm
Span: (N - 1) 0.50mm
Margin: 0.35mm (.014")
Conductor Width: 0.30mm (.012")
Conductor Thickness: 0.10mm (.004")
End Thickness: 0.30 ± 0.05mm (.012 ± .002")

Type D Jumpers—Contacts on opposite sides (Preferred version in Europe)

Circuits	Order No.											Lead-free
	Overall Length											
	30 mm (1.181")	51 mm (2.00")	76mm (3.00")	102mm (4.00")	127mm (5.00")	152mm (6.00")	178mm (7.00")	203mm (8.00")	229mm (9.00")	254mm (10.00")	305mm (12.00")	
6	98266-0052	98266-0054	98266-0056	98266-0058	98266-0060	98266-0062	98266-0064	98266-0066	98266-0068	98266-0070	98266-0072	
7	98266-0744	98266-0746	98266-0748	98266-0750	98266-0752	98266-0754	98266-0756	98266-0758	98266-0760	98266-0762	98266-0764	
8	98266-0074	98266-0076	98266-0078	98266-0080	98266-0082	98266-0084	98266-0086	98266-0088	98266-0090	98266-0092	98266-0094	
9	98266-0766	98266-0768	98266-0770	98266-0772	98266-0774	98266-0776	98266-0778	98266-0780	98266-0782	98266-0784	98266-0786	
10	98266-0096	98266-0098	98266-0100	98266-0102	98266-0104	98266-0106	98266-0108	98266-0110	98266-0112	98266-0114	98266-0116	
11	98266-0788	98266-0790	98266-0792	98266-0794	98266-0796	98266-0798	98266-0800	98266-0802	98266-0804	98266-0806	98266-0808	
12	98266-0118	98266-0120	98266-0122	98266-0124	98266-0126	98266-0128	98266-0130	98266-0132	98266-0134	98266-0136	98266-0138	
13	98266-0810	98266-0812	98266-0814	98266-0816	98266-0818	98266-0820	98266-0822	98266-0824	98266-0826	98266-0828	98266-0830	
14	98266-0140	98266-0142	98266-0144	98266-0146	98266-0148	98266-0150	98266-0152	98266-0154	98266-0156	98266-0158	98266-0160	
15	98266-0832	98266-0834	98266-0836	98266-0838	98266-0840	98266-0842	98266-0844	98266-0846	98266-0848	98266-0850	98266-0852	
16	98266-0162	98266-0164	98266-0166	98266-0168	98266-0170	98266-0172	98266-0174	98266-0176	98266-0178	98266-0180	98266-0182	
17	98266-0854	98266-0856	98266-0858	98266-0860	98266-0862	98266-0864	98266-0866	98266-0868	98266-0870	98266-0872	98266-0874	
18	98266-0184	98266-0186	98266-0188	98266-0190	98266-0192	98266-0194	98266-0196	98266-0198	98266-0200	98266-0202	98266-0204	
19	98266-0876	98266-0878	98266-0880	98266-0882	98266-0884	98266-0886	98266-0888	98266-0890	98266-0892	98266-0894	98266-0896	
20	98266-0206	98266-0208	98266-0210	98266-0212	98266-0214	98266-0216	98266-0218	98266-0220	98266-0222	98266-0224	98266-0226	
21	98266-0898	98266-0900	98266-0902	98266-0904	98266-0906	98266-0908	98266-0910	98266-0912	98266-0914	98266-0916	98266-0918	
22	98266-0228	98266-0230	98266-0232	98266-0234	98266-0236	98266-0238	98266-0240	98266-0242	98266-0244	98266-0246	98266-0248	
23	98266-0920	98266-0922	98266-0924	98266-0926	98266-0928	98266-0930	98266-0932	98266-0934	98266-0936	98266-0938	98266-0940	
24	98266-0250	98266-0252	98266-0254	98266-0256	98266-0258	98266-0260	98266-0262	98266-0264	98266-0266	98266-0268	98266-0270	
25	98266-0942	98266-0944	98266-0946	98266-0948	98266-0950	98266-0952	98266-0954	98266-0956	98266-0958	98266-0960	98266-0962	
26	98266-0272	98266-0274	98266-0276	98266-0278	98266-0280	98266-0282	98266-0284	98266-0286	98266-0288	98266-0290	98266-0292	
27	98266-0964	98266-0966	98266-0968	98266-0970	98266-0972	98266-0974	98266-0976	98266-0978	98266-0980	98266-0982	98266-0984	
28	98266-0294	98266-0296	98266-0298	98266-0300	98266-0302	98266-0304	98266-0306	98266-0308	98266-0310	98266-0312	98266-0314	Yes
29	98266-0986	98266-0988	98266-0990	98266-0992	98266-0994	98266-0996	98266-0998	98266-1000	98266-1002	98266-1004	98266-1006	
30	98266-0316	98266-0318	98266-0320	98266-0322	98266-0324	98266-0326	98266-0328	98266-0330	98266-0332	98266-0334	98266-0336	
31	98266-1008	98266-1010	98266-1012	98266-1014	98266-1016	98266-1018	98266-1020	98266-1022	98266-1024	98266-1026	98266-1028	
32	98266-0338	98266-0340	98266-0342	98266-0344	98266-0346	98266-0348	98266-0350	98266-0352	98266-0354	98266-0356	98266-0358	
33	98266-1030	98266-1032	98266-1034	98266-1036	98266-1038	98266-1040	98266-1042	98266-1044	98266-1046	98266-1048	98266-1050	
34	98266-0360	98266-0362	98266-0364	98266-0366	98266-0368	98266-0370	98266-0372	98266-0374	98266-0376	98266-0378	98266-0380	
35	98266-1052	98266-1054	98266-1056	98266-1058	98266-1060	98266-1062	98266-1064	98266-1066	98266-1068	98266-1070	98266-1072	
36	98266-0382	98266-0384	98266-0386	98266-0388	98266-0390	98266-0392	98266-0394	98266-0396	98266-0398	98266-0400	98266-0402	
37	98266-1074	98266-1076	98266-1078	98266-1080	98266-1082	98266-1084	98266-1086	98266-1088	98266-1090	98266-1092	98266-1094	
38	98266-0404	98266-0406	98266-0408	98266-0410	98266-0412	98266-0414	98266-0416	98266-0418	98266-0420	98266-0422	98266-0424	
39	98266-1096	98266-1098	98266-1100	98266-1102	98266-1104	98266-1106	98266-1108	98266-1110	98266-1112	98266-1114	98266-1116	
40	98266-0426	98266-0428	98266-0430	98266-0432	98266-0434	98266-0436	98266-0438	98266-0440	98266-0442	98266-0444	98266-0446	
41	98266-1118	98266-1120	98266-1122	98266-1124	98266-1126	98266-1128	98266-1130	98266-1132	98266-1134	98266-1136	98266-1138	
42	98266-0448	98266-0450	98266-0452	98266-0454	98266-0456	98266-0458	98266-0460	98266-0462	98266-0464	98266-0466	98266-0468	
43	98266-1140	98266-1142	98266-1144	98266-1146	98266-1148	98266-1150	98266-1152	98266-1154	98266-1156	98266-1158	98266-1160	
44	98266-0470	98266-0472	98266-0474	98266-0476	98266-0478	98266-0480	98266-0482	98266-0484	98266-0486	98266-0488	98266-0490	
45	98266-1162	98266-1164	98266-1166	98266-1168	98266-1170	98266-1172	98266-1174	98266-1176	98266-1178	98266-1180	98266-1182	
46	98266-0492	98266-0494	98266-0496	98266-0498	98266-0500	98266-0502	98266-0504	98266-0506	98266-0508	98266-0510	98266-0512	
47	98266-1184	98266-1186	98266-1188	98266-1190	98266-1192	98266-1194	98266-1196	98266-1198	98266-1200	98266-1202	98266-1204	
48	98266-0514	98266-0516	98266-0518	98266-0520	98266-0522	98266-0524	98266-0526	98266-0528	98266-0530	98266-0532	98266-0534	
49	98266-1206	98266-1208	98266-1210	98266-1212	98266-1214	98266-1216	98266-1218	98266-1220	98266-1222	98266-1224	98266-1226	
50	98266-0536	98266-0538	98266-0540	98266-0542	98266-0544	98266-0546	98266-0548	98266-0550	98266-0552	98266-0554	98266-0556	

1.00mm (.039") Pitch Premo-Flex™ Flat Flex Cable Jumpers

21039
Standard



Molex introduces a complete line of 1.00mm (.039") pitch Flat Flex Cable jumpers. These jumpers are used to connect 2 PC boards and terminate to either ZIF or Non-ZIF FFC Connectors.

Molex 1.00mm (.039") Flat Flex Cable jumpers are available in a wide variety of lengths and circuit sizes. These standard lengths are easy to order and feature shorter lead times.

Reference Information
UL Style No.: 2896
Mates With: Any 1.00mm (.039") pitch Molex FFC/FPC connector
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 1.2A

Physical
Strip Length: 4.0mm (.157")
Reinforcement Length: 8.00mm (.315")
Width: (N + 1) 1.00mm
Span: (N - 1) 1.00mm
Margin: 0.65mm (.026")
Conductor Width: 0.70mm (.028")
Conductor Thickness: 0.10mm (.004")
End Thickness: 0.30 ±0.05mm (.012 ±.002")

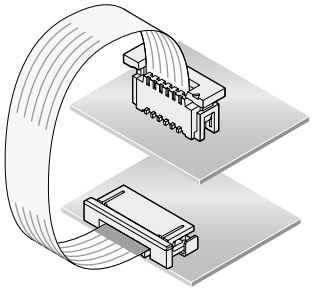
Type A FFC Jumpers—Contacts on same side (Preferred version in North America)

Circuits	Order No.											Lead-free
	Overall Length											
	30.00mm (1.181")	51.00mm (2.00")	76.00mm (3.00")	102.00mm (4.00")	127.00mm (5.00")	152.00mm (6.00")	178.00mm (7.00")	203.00mm (8.00")	229.00mm (9.00")	254.00mm (10.00")	305.00mm (12.00")	
4	21039-0701	21039-0703	21039-0705	21039-0707	21039-0709	21039-0711	21039-0713	21039-0715	21039-0717	21039-0719	21039-0721	
5	21039-0723	21039-0725	21039-0727	21039-0729	21039-0731	21039-0733	21039-0735	21039-0737	21039-0739	21039-0741	21039-0743	
6	21039-0201	21039-0203	21039-0205	21039-0207	21039-0209	21039-0211	21039-0213	21039-0215	21039-0217	21039-0219	21039-0221	
7	21039-0745	21039-0747	21039-0749	21039-0751	21039-0753	21039-0755	21039-0757	21039-0759	21039-0761	21039-0763	21039-0765	
8	21039-0223	21039-0225	21039-0227	21039-0229	21039-0231	21039-0233	21039-0235	21039-0237	21039-0239	21039-0241	21039-0243	
9	21039-0767	21039-0769	21039-0771	21039-0773	21039-0775	21039-0777	21039-0779	21039-0781	21039-0783	21039-0785	21039-0787	
10	21039-0245	21039-0247	21039-0249	21039-0251	21039-0253	21039-0255	21039-0257	21039-0259	21039-0261	21039-0263	21039-0265	
11	21039-0789	21039-0791	21039-0793	21039-0795	21039-0797	21039-0799	21039-0801	21039-0803	21039-0805	21039-0807	21039-0809	
12	21039-0267	21039-0269	21039-0271	21039-0273	21039-0275	21039-0277	21039-0279	21039-0281	21039-0283	21039-0285	21039-0287	
13	21039-0811	21039-0813	21039-0815	21039-0817	21039-0819	21039-0821	21039-0823	21039-0825	21039-0827	21039-0829	21039-0831	
14	21039-0289	21039-0291	21039-0293	21039-0295	21039-0297	21039-0299	21039-0301	21039-0303	21039-0305	21039-0307	21039-0309	
15	21039-0833	21039-0835	21039-0837	21039-0839	21039-0841	21039-0843	21039-0845	21039-0847	21039-0849	21039-0851	21039-0853	
16	21039-0311	21039-0313	21039-0315	21039-0317	21039-0319	21039-0321	21039-0323	21039-0325	21039-0327	21039-0329	21039-0331	
17	21039-0855	21039-0857	21039-0859	21039-0861	21039-0863	21039-0865	21039-0867	21039-0869	21039-0871	21039-0873	21039-0875	
18	21039-0333	21039-0335	21039-0337	21039-0339	21039-0341	21039-0343	21039-0345	21039-0347	21039-0349	21039-0351	21039-0353	
19	21039-0877	21039-0879	21039-0881	21039-0883	21039-0885	21039-0887	21039-0889	21039-0891	21039-0893	21039-0895	21039-0897	
20	21039-0355	21039-0357	21039-0359	21039-0361	21039-0363	21039-0365	21039-0367	21039-0369	21039-0371	21039-0373	21039-0375	
21	21039-0899	21039-0901	21039-0903	21039-0905	21039-0907	21039-0909	21039-0911	21039-0913	21039-0915	21039-0917	21039-0919	
22	21039-0377	21039-0379	21039-0381	21039-0383	21039-0385	21039-0387	21039-0389	21039-0391	21039-0393	21039-0395	21039-0397	Yes
23	21039-0921	21039-0923	21039-0925	21039-0927	21039-0929	21039-0931	21039-0933	21039-0935	21039-0937	21039-0939	21039-0941	
24	21039-0399	21039-0401	21039-0403	21039-0405	21039-0407	21039-0409	21039-0411	21039-0413	21039-0415	21039-0417	21039-0419	
25	21039-0943	21039-0945	21039-0947	21039-0949	21039-0951	21039-0953	21039-0955	21039-0957	21039-0959	21039-0961	21039-0963	
26	21039-0421	21039-0423	21039-0425	21039-0427	21039-0429	21039-0431	21039-0433	21039-0435	21039-0437	21039-0439	21039-0441	
27	21039-0965	21039-0967	21039-0969	21039-0971	21039-0973	21039-0975	21039-0977	21039-0979	21039-0981	21039-0983	21039-0985	
28	21039-0443	21039-0445	21039-0447	21039-0449	21039-0451	21039-0453	21039-0455	21039-0457	21039-0459	21039-0461	21039-0463	
29	21039-0987	21039-0989	21039-0991	21039-0993	21039-0995	21039-0997	21039-0999	21039-1001	21039-1003	21039-1005	21039-1007	
30	21039-0465	21039-0467	21039-0469	21039-0471	21039-0473	21039-0475	21039-0477	21039-0479	21039-0481	21039-0483	21039-0485	
31	21039-1009	21039-1011	21039-1013	21039-1015	21039-1017	21039-1019	21039-1021	21039-1023	21039-1025	21039-1027	21039-1029	
32	21039-0487	21039-0489	21039-0491	21039-0493	21039-0495	21039-0497	21039-0499	21039-0501	21039-0503	21039-0505	21039-0507	
33	21039-1031	21039-1033	21039-1035	21039-1037	21039-1039	21039-1041	21039-1043	21039-1045	21039-1047	21039-1049	21039-1051	
34	21039-0509	21039-0511	21039-0513	21039-0515	21039-0517	21039-0519	21039-0521	21039-0523	21039-0525	21039-0527	21039-0529	
35	21039-1053	21039-1055	21039-1057	21039-1059	21039-1061	21039-1063	21039-1065	21039-1067	21039-1069	21039-1071	21039-1073	
36	21039-0531	21039-0533	21039-0535	21039-0537	21039-0539	21039-0541	21039-0543	21039-0545	21039-0547	21039-0549	21039-0551	
37	21039-1075	21039-1077	21039-1079	21039-1081	21039-1083	21039-1085	21039-1087	21039-1089	21039-1091	21039-1093	21039-1095	
38	21039-0553	21039-0555	21039-0557	21039-0559	21039-0561	21039-0563	21039-0565	21039-0567	21039-0569	21039-0571	21039-0573	
39	21039-1097	21039-1099	21039-1101	21039-1103	21039-1105	21039-1107	21039-1109	21039-1111	21039-1113	21039-1115	21039-1117	
40	21039-0575	21039-0577	21039-0579	21039-0581	21039-0583	21039-0585	21039-0587	21039-0589	21039-0591	21039-0593	21039-0595	

Custom jumpers available

1.00mm (.039") Pitch Premo-Flex™ Flat Flex Cable Jumpers

21039
Standard



Molex introduces a complete line of 1.00mm (.039") pitch Flat Flex Cable jumpers. These jumpers are used to connect 2 PC boards and terminate to either ZIF or Non-ZIF FFC Connectors.

Molex 1.00mm (.039") Flat Flex Cable jumpers are available in a wide variety of lengths and circuit sizes. These standard lengths are easy to order and feature shorter lead times.

Reference Information
UL Style No.: 2896
Mates With: Any 1.00mm (.039") pitch Molex FFC/FPC connector
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 1.2A

Physical
Strip Length: 4.0mm (.157")
Reinforcement Length: 8.00mm (.315")
Width: (N + 1) 1.00mm
Span: (N - 1) 1.00mm
Margin: 0.65mm (.026")
Conductor Width: 0.70mm (.028")
Conductor Thickness: 0.10mm (.004")
End Thickness: 0.30 ± 0.05mm (.012 ± .002")

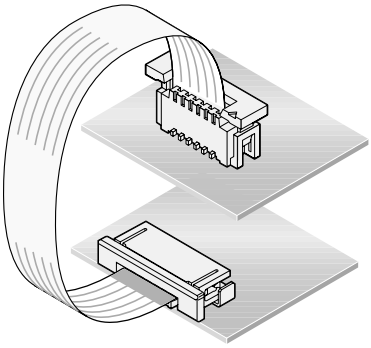
Type D FFC Jumpers—Contacts on opposite sides (Preferred version in North America)

Circuits	Order No. Overall Length											Lead-free
	30.00mm (1.181")	51.00mm (2.00")	76.00mm (3.00")	102.00mm (4.00")	127.00mm (5.00")	152.00mm (6.00")	178.00mm (7.00")	203.00mm (8.00")	229.00mm (9.00")	254.00mm (10.00")	305.00mm (12.00")	
4	21039-0700	21039-0702	21039-0704	21039-0706	21039-0708	21039-0710	21039-0712	21039-0714	21039-0716	21039-0718	21039-0720	
5	21039-0722	21039-0724	21039-0726	21039-0728	21039-0730	21039-0732	21039-0734	21039-0736	21039-0738	21039-0740	21039-0742	
6	21039-0202	21039-0204	21039-0206	21039-0208	21039-0210	21039-0212	21039-0214	21039-0216	21039-0218	21039-0220	21039-0222	
7	21039-0744	21039-0746	21039-0748	21039-0750	21039-0752	21039-0754	21039-0756	21039-0758	21039-0760	21039-0762	21039-0764	
8	21039-0224	21039-0226	21039-0228	21039-0230	21039-0232	21039-0234	21039-0236	21039-0238	21039-0240	21039-0242	21039-0244	
9	21039-0766	21039-0768	21039-0770	21039-0772	21039-0774	21039-0776	21039-0778	21039-0780	21039-0782	21039-0784	21039-0786	
10	21039-0246	21039-0248	21039-0250	21039-0252	21039-0254	21039-0256	21039-0258	21039-0260	21039-0262	21039-0264	21039-0266	
11	21039-0788	21039-0790	21039-0792	21039-0794	21039-0796	21039-0798	21039-0800	21039-0802	21039-0804	21039-0806	21039-0808	
12	21039-0268	21039-0270	21039-0272	21039-0274	21039-0276	21039-0278	21039-0280	21039-0282	21039-0284	21039-0286	21039-0288	
13	21039-0810	21039-0812	21039-0814	21039-0816	21039-0818	21039-0820	21039-0822	21039-0824	21039-0826	21039-0828	21039-0830	
14	21039-0290	21039-0292	21039-0294	21039-0296	21039-0298	21039-0300	21039-0302	21039-0304	21039-0306	21039-0308	21039-0310	
15	21039-0832	21039-0834	21039-0836	21039-0838	21039-0840	21039-0842	21039-0844	21039-0846	21039-0848	21039-0850	21039-0852	
16	21039-0312	21039-0314	21039-0316	21039-0318	21039-0320	21039-0322	21039-0324	21039-0326	21039-0328	21039-0330	21039-0332	
17	21039-0854	21039-0856	21039-0858	21039-0860	21039-0862	21039-0864	21039-0866	21039-0868	21039-0870	21039-0872	21039-0874	
18	21039-0334	21039-0336	21039-0338	21039-0340	21039-0342	21039-0344	21039-0346	21039-0348	21039-0350	21039-0352	21039-0354	
19	21039-0876	21039-0878	21039-0880	21039-0882	21039-0884	21039-0886	21039-0888	21039-0890	21039-0892	21039-0894	21039-0896	
20	21039-0356	21039-0358	21039-0360	21039-0362	21039-0364	21039-0366	21039-0368	21039-0370	21039-0372	21039-0374	21039-0376	
21	21039-0898	21039-0900	21039-0902	21039-0904	21039-0906	21039-0908	21039-0910	21039-0912	21039-0914	21039-0916	21039-0918	
22	21039-0378	21039-0380	21039-0382	21039-0384	21039-0386	21039-0388	21039-0390	21039-0392	21039-0394	21039-0396	21039-0398	Yes
23	21039-0920	21039-0922	21039-0924	21039-0926	21039-0928	21039-0930	21039-0932	21039-0934	21039-0936	21039-0938	21039-0940	
24	21039-0400	21039-0402	21039-0404	21039-0406	21039-0408	21039-0410	21039-0412	21039-0414	21039-0416	21039-0418	21039-0420	
25	21039-0942	21039-0944	21039-0946	21039-0948	21039-0950	21039-0952	21039-0954	21039-0956	21039-0958	21039-0960	21039-0962	
26	21039-0422	21039-0424	21039-0426	21039-0428	21039-0430	21039-0432	21039-0434	21039-0436	21039-0438	21039-0440	21039-0442	
27	21039-0964	21039-0966	21039-0968	21039-0970	21039-0972	21039-0974	21039-0976	21039-0978	21039-0980	21039-0982	21039-0984	
28	21039-0444	21039-0446	21039-0448	21039-0450	21039-0452	21039-0454	21039-0456	21039-0458	21039-0460	21039-0462	21039-0464	
29	21039-0986	21039-0988	21039-0990	21039-0992	21039-0994	21039-0996	21039-0998	21039-1000	21039-1002	21039-1004	21039-1006	
30	21039-0466	21039-0468	21039-0470	21039-0472	21039-0474	21039-0476	21039-0478	21039-0480	21039-0482	21039-0484	21039-0486	
31	21039-1008	21039-1010	21039-1012	21039-1014	21039-1016	21039-1018	21039-1020	21039-1022	21039-1024	21039-1026	21039-1028	
32	21039-0488	21039-0490	21039-0492	21039-0494	21039-0496	21039-0498	21039-0500	21039-0502	21039-0504	21039-0506	21039-0508	
33	21039-1030	21039-1032	21039-1034	21039-1036	21039-1038	21039-1040	21039-1042	21039-1044	21039-1046	21039-1048	21039-1050	
34	21039-0510	21039-0512	21039-0514	21039-0516	21039-0518	21039-0520	21039-0522	21039-0524	21039-0526	21039-0528	21039-0530	
35	21039-1052	21039-1054	21039-1056	21039-1058	21039-1060	21039-1062	21039-1064	21039-1066	21039-1068	21039-1070	21039-1072	
36	21039-0532	21039-0534	21039-0536	21039-0538	21039-0540	21039-0542	21039-0544	21039-0546	21039-0548	21039-0550	21039-0552	
37	21039-1074	21039-1076	21039-1078	21039-1080	21039-1082	21039-1084	21039-1086	21039-1088	21039-1090	21039-1092	21039-1094	
38	21039-0554	21039-0556	21039-0558	21039-0560	21039-0562	21039-0564	21039-0566	21039-0568	21039-0570	21039-0572	21039-0574	
39	21039-1096	21039-1098	21039-1100	21039-1102	21039-1104	21039-1106	21039-1108	21039-1110	21039-1112	21039-1114	21039-1116	
40	21039-0576	21039-0578	21039-0580	21039-0582	21039-0584	21039-0586	21039-0588	21039-0590	21039-0592	21039-0594	21039-0596	

Custom jumpers available

1.00mm (.039") Pitch Premo-Flex™ Flat Flex Cable Jumpers

98267
Standard



Molex introduces a complete line of 1.00mm (.039") pitch Flat Flex Cable jumpers. These jumpers are used to connect 2 PC boards and terminate to either ZIF or Non-ZIF FFC connectors.

Molex 1.00mm (.020") Flat Flex Cable jumpers are available in a wide variety of lengths and circuit sizes. These standard lengths are easy to order and feature shorter lead times.

We are also able to offer customized lengths and circuit sizes.

Reference Information
Product Specification: PS-98267-001
Packaging: Box
UL Style No.: 20706
Mates With: Any 1.00mm (.039") Pitch Molex FFC/FPC connector
Designed In: Millimeters

Electrical
Voltage: 60V
Current: 1.2A

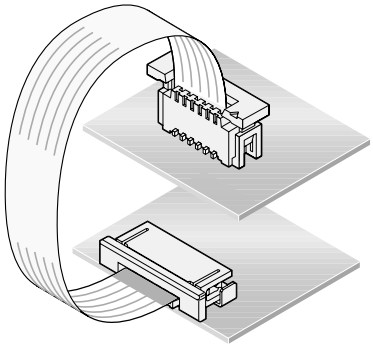
Physical
Strip Length: 4.0mm (.157")
Reinforcement Length: 8.0mm (.315")
Width: (N + 1) 1.00mm
Span: (N - 1) 1.00mm
Margin: 0.65mm (.014")
Conductor Width: 0.70mm (.012")
Conductor Thickness: 0.10mm (.004")
End Thickness: 0.30 ± 0.05mm (.012 ± .002")

Type A Jumpers—Contacts on same side (Preferred version in Europe)

Circuits	Order No.											Lead-free
	Overall Length											
	30mm (1.181")	51mm (2.00")	76mm (3.00")	102mm (4.00")	127mm (5.00")	152mm (6.00")	178mm (7.00")	203mm (8.00")	229mm (9.00")	254mm (10.00")	305mm (12.00")	
4	98267-0701	98267-0703	98267-0705	98267-0707	98267-0709	98267-0711	98267-0713	98267-0715	98267-0717	98267-0719	98267-0721	
5	98267-0723	98267-0725	98267-0727	98267-0729	98267-0731	98267-0733	98267-0735	98267-0737	98267-0739	98267-0741	98267-0743	
6	98267-0201	98267-0203	98267-0205	98267-0207	98267-0209	98267-0211	98267-0213	98267-0215	98267-0217	98267-0219	98267-0221	
7	98267-0745	98267-0747	98267-0749	98267-0751	98267-0753	98267-0755	98267-0757	98267-0759	98267-0761	98267-0763	98267-0765	
8	98267-0223	98267-0225	98267-0227	98267-0229	98267-0231	98267-0233	98267-0235	98267-0237	98267-0239	98267-0241	98267-0243	
9	98267-0767	98267-0769	98267-0771	98267-0773	98267-0775	98267-0777	98267-0779	98267-0781	98267-0783	98267-0785	98267-0787	
10	98267-0245	98267-0247	98267-0249	98267-0251	98267-0253	98267-0255	98267-0257	98267-0259	98267-0261	98267-0263	98267-0265	
11	98267-0789	98267-0791	98267-0793	98267-0795	98267-0797	98267-0799	98267-0801	98267-0803	98267-0805	98267-0807	98267-0809	
12	98267-0267	98267-0269	98267-0271	98267-0273	98267-0275	98267-0277	98267-0279	98267-0281	98267-0283	98267-0285	98267-0287	
13	98267-0811	98267-0813	98267-0815	98267-0817	98267-0819	98267-0821	98267-0823	98267-0825	98267-0827	98267-0829	98267-0831	
14	98267-0289	98267-0291	98267-0293	98267-0295	98267-0297	98267-0299	98267-0301	98267-0303	98267-0305	98267-0307	98267-0309	
15	98267-0833	98267-0835	98267-0837	98267-0839	98267-0841	98267-0843	98267-0845	98267-0847	98267-0849	98267-0851	98267-0853	
16	98267-0311	98267-0313	98267-0315	98267-0317	98267-0319	98267-0321	98267-0323	98267-0325	98267-0327	98267-0329	98267-0331	
17	98267-0855	98267-0857	98267-0859	98267-0861	98267-0863	98267-0865	98267-0867	98267-0869	98267-0871	98267-0873	98267-0875	
18	98267-0333	98267-0335	98267-0337	98267-0339	98267-0341	98267-0343	98267-0345	98267-0347	98267-0349	98267-0351	98267-0353	
19	98267-0877	98267-0879	98267-0881	98267-0883	98267-0885	98267-0887	98267-0889	98267-0891	98267-0893	98267-0895	98267-0897	
20	98267-0355	98267-0357	98267-0359	98267-0361	98267-0363	98267-0365	98267-0367	98267-0369	98267-0371	98267-0373	98267-0375	
21	98267-0899	98267-0901	98267-0903	98267-0905	98267-0907	98267-0909	98267-0911	98267-0913	98267-0915	98267-0917	98267-0919	
22	98267-0377	98267-0379	98267-0381	98267-0383	98267-0385	98267-0387	98267-0389	98267-0391	98267-0393	98267-0395	98267-0397	Yes
23	98267-0921	98267-0923	98267-0925	98267-0927	98267-0929	98267-0931	98267-0933	98267-0935	98267-0937	98267-0939	98267-0941	
24	98267-0399	98267-0401	98267-0403	98267-0405	98267-0407	98267-0409	98267-0411	98267-0413	98267-0415	98267-0417	98267-0419	
25	98267-0943	98267-0945	98267-0947	98267-0949	98267-0951	98267-0953	98267-0955	98267-0957	98267-0959	98267-0961	98267-0963	
26	98267-0421	98267-0423	98267-0425	98267-0427	98267-0429	98267-0431	98267-0433	98267-0435	98267-0437	98267-0439	98267-0441	
27	98267-0965	98267-0967	98267-0969	98267-0971	98267-0973	98267-0975	98267-0977	98267-0979	98267-0981	98267-0983	98267-0985	
28	98267-0443	98267-0445	98267-0447	98267-0449	98267-0451	98267-0453	98267-0455	98267-0457	98267-0459	98267-0461	98267-0463	
29	98267-0987	98267-0989	98267-0991	98267-0993	98267-0995	98267-0997	98267-0999	98267-1001	98267-1003	98267-1005	98267-1007	
30	98267-0465	98267-0467	98267-0469	98267-0471	98267-0473	98267-0475	98267-0477	98267-0479	98267-0481	98267-0483	98267-0485	
31	98267-1009	98267-1011	98267-1013	98267-1015	98267-1017	98267-1019	98267-1021	98267-1023	98267-1025	98267-1027	98267-1029	
32	98267-0487	98267-0489	98267-0491	98267-0493	98267-0495	98267-0497	98267-0499	98267-0501	98267-0503	98267-0505	98267-0507	
33	98267-1031	98267-1033	98267-1035	98267-1037	98267-1039	98267-1041	98267-1043	98267-1045	98267-1047	98267-1049	98267-1051	
34	98267-0509	98267-0511	98267-0513	98267-0515	98267-0517	98267-0519	98267-0521	98267-0523	98267-0525	98267-0527	98267-0529	
35	98267-1053	98267-1055	98267-1057	98267-1059	98267-1061	98267-1063	98267-1065	98267-1067	98267-1069	98267-1071	98267-1073	
36	98267-0531	98267-0533	98267-0535	98267-0537	98267-0539	98267-0541	98267-0543	98267-0545	98267-0547	98267-0549	98267-0551	
37	98267-1075	98267-1077	98267-1079	98267-1081	98267-1083	98267-1085	98267-1087	98267-1089	98267-1091	98267-1093	98267-1095	
38	98267-0553	98267-0555	98267-0557	98267-0559	98267-0561	98267-0563	98267-0565	98267-0567	98267-0569	98267-0571	98267-0573	
39	98267-1097	98267-1099	98267-1101	98267-1103	98267-1105	98267-1107	98267-1109	98267-1111	98267-1113	98267-1115	98267-1117	
40	98267-0575	98267-0577	98267-0579	98267-0581	98267-0583	98267-0585	98267-0587	98267-0589	98267-0591	98267-0593	98267-0595	

1.00mm (.039") Pitch Premo-Flex™ Flat Flex Cable Jumpers

98267
Standard



Molex introduces a complete line of 1.00mm (.039") pitch Flat Flex Cable jumpers. These jumpers are used to connect 2 PC boards and terminate to either ZIF or Non-ZIF FFC connectors.

Molex 1.00mm (.020") Flat Flex Cable jumpers are available in a wide variety of lengths and circuit sizes. These standard lengths are easy to order and feature shorter lead times.

We are also able to offer customized lengths and circuit sizes.

Reference Information
Product Specification: PS-98267-001
Packaging: Box
UL Style No.: 20706
Mates With: Any 1.00mm (.039") Pitch Molex FFC/FPC connector
Designed In: Millimeters

Electrical
Voltage: 60V
Current: 1.2A

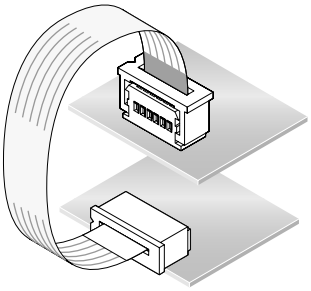
Physical
Strip Length: 4.0mm (.157")
Reinforcement Length: 8.0mm (.315")
Width: (N + 1) 1.00mm
Span: (N - 1) 1.00mm
Margin: 0.65mm (.014")
Conductor Width: 0.70mm (.012")
Conductor Thickness: 0.10mm (.004")
End Thickness: 0.30 ± 0.05mm (.012 ± .002")

Type D Jumpers—Contacts on opposite side (Preferred version in Europe)

Circuits	Order No. — Overall Length											Lead-free
	30mm (1.181")	51mm (2.00")	76mm (3.00")	102mm (4.00")	127mm (5.00")	152mm (6.00")	178mm (7.00")	203mm (8.00")	229mm (9.00")	254mm (10.00")	305mm (12.00")	
4	98267-0700	98267-0702	98267-0704	98267-0706	98267-0708	98267-0710	98267-0712	98267-0714	98267-0716	98267-0718	98267-0720	
5	98267-0722	98267-0724	98267-0726	98267-0728	98267-0730	98267-0732	98267-0734	98267-0736	98267-0738	98267-0740	98267-0742	
6	98267-0202	98267-0204	98267-0206	98267-0208	98267-0210	98267-0212	98267-0214	98267-0216	98267-0218	98267-0220	98267-0222	
7	98267-0744	98267-0746	98267-0748	98267-0750	98267-0752	98267-0754	98267-0756	98267-0758	98267-0760	98267-0762	98267-0764	
8	98267-0224	98267-0226	98267-0228	98267-0230	98267-0232	98267-0234	98267-0236	98267-0238	98267-0240	98267-0242	98267-0244	
9	98267-0766	98267-0768	98267-0770	98267-0772	98267-0774	98267-0776	98267-0778	98267-0780	98267-0782	98267-0784	98267-0786	
10	98267-0246	98267-0248	98267-0250	98267-0252	98267-0254	98267-0256	98267-0258	98267-0260	98267-0262	98267-0264	98267-0266	
11	98267-0788	98267-0790	98267-0792	98267-0794	98267-0796	98267-0798	98267-0800	98267-0802	98267-0804	98267-0806	98267-0808	
12	98267-0268	98267-0270	98267-0272	98267-0274	98267-0276	98267-0278	98267-0280	98267-0282	98267-0284	98267-0286	98267-0288	
13	98267-0810	98267-0812	98267-0814	98267-0816	98267-0818	98267-0820	98267-0822	98267-0824	98267-0826	98267-0828	98267-0830	
14	98267-0290	98267-0292	98267-0294	98267-0296	98267-0298	98267-0300	98267-0302	98267-0304	98267-0306	98267-0308	98267-0310	
15	98267-0832	98267-0834	98267-0836	98267-0838	98267-0840	98267-0842	98267-0844	98267-0846	98267-0848	98267-0850	98267-0852	
16	98267-0312	98267-0314	98267-0315	98267-0318	98267-0320	98267-0322	98267-0324	98267-0326	98267-0328	98267-0330	98267-0332	
17	98267-0854	98267-0856	98267-0858	98267-0860	98267-0862	98267-0864	98267-0866	98267-0868	98267-0870	98267-0872	98267-0874	
18	98267-0334	98267-0336	98267-0338	98267-0340	98267-0342	98267-0344	98267-0346	98267-0348	98267-0350	98267-0352	98267-0354	
19	98267-0876	98267-0878	98267-0880	98267-0882	98267-0884	98267-0886	98267-0888	98267-0890	98267-0892	98267-0894	98267-0896	
20	98267-0356	98267-0358	98267-0360	98267-0362	98267-0364	98267-0366	98267-0368	98267-0370	98267-0372	98267-0374	98267-0376	
21	98267-0898	98267-0900	98267-0902	98267-0904	98267-0906	98267-0908	98267-0910	98267-0912	98267-0914	98267-0916	98267-0918	
22	98267-0378	98267-0380	98267-0382	98267-0384	98267-0386	98267-0388	98267-0390	98267-0392	98267-0394	98267-0396	98267-0398	Yes
23	98267-0920	98267-0922	98267-0924	98267-0926	98267-0928	98267-0930	98267-0932	98267-0934	98267-0936	98267-0938	98267-0940	
24	98267-0400	98267-0402	98267-0404	98267-0406	98267-0408	98267-0410	98267-0412	98267-0414	98267-0416	98267-0418	98267-0420	
25	98267-0942	98267-0944	98267-0946	98267-0948	98267-0950	98267-0952	98267-0954	98267-0956	98267-0958	98267-0960	98267-0962	
26	98267-0422	98267-0424	98267-0426	98267-0428	98267-0430	98267-0432	98267-0434	98267-0436	98267-0438	98267-0440	98267-0442	
27	98267-0964	98267-0966	98267-0968	98267-0970	98267-0972	98267-0974	98267-0976	98267-0978	98267-0980	98267-0982	98267-0984	
28	98267-0444	98267-0446	98267-0448	98267-0450	98267-0452	98267-0454	98267-0456	98267-0458	98267-0460	98267-0462	98267-0464	
29	98267-0986	98267-0988	98267-0990	98267-0992	98267-0994	98267-0996	98267-0998	98267-1000	98267-1002	98267-1004	98267-1006	
30	98267-0466	98267-0468	98267-0470	98267-0472	98267-0474	98267-0476	98267-0478	98267-0480	98267-0482	98267-0484	98267-0486	
31	98267-1008	98267-1010	98267-1012	98267-1014	98267-1016	98267-1018	98267-1020	98267-1022	98267-1024	98267-1026	98267-1028	
32	21039-0488	98267-0490	98267-0492	98267-0494	98267-0496	98267-0498	98267-0500	98267-0502	98267-0504	98267-0506	98267-0508	
33	98267-1030	98267-1032	98267-1034	98267-1036	98267-1038	98267-1040	98267-1042	98267-1044	98267-1046	98267-1048	98267-1050	
34	98267-0510	98267-0512	98267-0514	98267-0516	98267-0518	98267-0520	98267-0522	98267-0524	98267-0526	98267-0528	98267-0530	
35	98267-1052	98267-1054	98267-1056	98267-1058	98267-1060	98267-1062	98267-1064	98267-1066	98267-1068	98267-1070	98267-1072	
36	98267-0532	98267-0534	98267-0536	98267-0538	98267-0540	98267-0542	98267-0544	98267-0546	98267-0548	98267-0550	98267-0552	
37	98267-1074	98267-1076	98267-1078	98267-1080	98267-1082	98267-1084	98267-1086	98267-1088	98267-1090	98267-1092	98267-1094	
38	98267-0554	98267-0556	98267-0558	98267-0560	98267-0562	98267-0564	98267-0566	98267-0568	98267-0570	98267-0572	98267-0574	
39	98267-1096	98267-1098	98267-1100	98267-1102	98267-1104	98267-1106	98267-1108	98267-1110	98267-1112	98267-1114	98267-1116	
40	98267-0576	98267-0578	98267-0580	98267-0582	98267-0584	98267-0586	98267-0588	98267-0590	98267-0592	98267-0594	98267-0596	

1.25mm (.049") Pitch Premo-Flex™ Flat Flex Cable Jumpers

21049
Standard



Molex introduces a complete line of 1.25mm (.049") pitch Flat Flex Cable jumpers. These jumpers are used to connect 2 PC boards and terminate to either ZIF or Non-ZIF FFC Connectors.

Molex 1.25mm (.049") Flat Flex Cable jumpers are available in a wide variety of lengths and circuit sizes. These standard lengths are easy to order and feature shorter lead times.

Reference Information
UL Style No.: 2896
Mates With: Any 1.25mm (.049") pitch Molex FFC/FPC connector
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 1.2A

Physical
Strip Length: 5.0mm (.197")
Reinforcement Length: 10.00mm (.394")
Width: (N + 1) 1.25mm
Span: (N - 1) 1.25mm
Margin: 0.85mm (.033")
Conductor Width: 0.80mm (.031")
Conductor Thickness: 0.10mm (.004")
End Thickness: 0.30 ± 0.05mm (.012 ± .002")

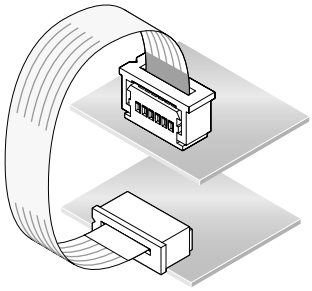
Type A FFC Jumpers—Contacts on same side (Preferred version in North America)

Circuits	Order No. Overall Length											Lead-free
	30.00mm (1.181")	51.00mm (2.00")	76.00mm (3.00")	102.00mm (4.00")	127.00mm (5.00")	152.00mm (6.00")	178.00mm (7.00")	203.00mm (8.00")	229.00mm (9.00")	254.00mm (10.00")	305.00mm (12.00")	
4	21049-0701	21049-0703	21049-0705	21049-0707	21049-0709	21049-0711	21049-0713	21049-0715	21049-0717	21049-0719	21049-0721	
5	21049-0723	21049-0725	21049-0727	21049-0729	21049-0731	21049-0733	21049-0735	21049-0737	21049-0739	21049-0741	21049-0743	
6	21049-0101	21049-0103	21049-0105	21049-0107	21049-0109	21049-0111	21049-0113	21049-0115	21049-0117	21049-0119	21049-0121	
7	21049-0745	21049-0747	21049-0749	21049-0751	21049-0753	21049-0755	21049-0757	21049-0759	21049-0761	21049-0763	21049-0765	
8	21049-0123	21049-0125	21049-0127	21049-0129	21049-0131	21049-0133	21049-0135	21049-0137	21049-0139	21049-0141	21049-0143	
9	21049-0767	21049-0769	21049-0771	21049-0773	21049-0775	21049-0777	21049-0779	21049-0781	21049-0783	21049-0785	21049-0787	
10	21049-0145	21049-0147	21049-0149	21049-0151	21049-0153	21049-0155	21049-0157	21049-0159	21049-0161	21049-0163	21049-0165	
11	21049-0789	21049-0791	21049-0793	21049-0795	21049-0797	21049-0799	21049-0801	21049-0803	21049-0805	21049-0807	21049-0809	
12	21049-0167	21049-0169	21049-0171	21049-0173	21049-0175	21049-0177	21049-0179	21049-0181	21049-0183	21049-0185	21049-0187	
13	21049-0811	21049-0813	21049-0815	21049-0817	21049-0819	21049-0821	21049-0823	21049-0825	21049-0827	21049-0829	21049-0831	
14	21049-0189	21049-0191	21049-0193	21049-0195	21049-0197	21049-0199	21049-0201	21049-0203	21049-0205	21049-0207	21049-0209	
15	21049-0833	21049-0835	21049-0837	21049-0839	21049-0841	21049-0843	21049-0845	21049-0847	21049-0849	21049-0851	21049-0853	
16	21049-0211	21049-0213	21049-0215	21049-0217	21049-0219	21049-0221	21049-0223	21049-0225	21049-0227	21049-0229	21049-0231	
17	21049-0855	21049-0857	21049-0859	21049-0861	21049-0863	21049-0865	21049-0867	21049-0869	21049-0871	21049-0873	21049-0875	
18	21049-0233	21049-0235	21049-0237	21049-0239	21049-0241	21049-0243	21049-0245	21049-0247	21049-0249	21049-0251	21049-0253	
19	21049-0877	21049-0879	21049-0881	21049-0883	21049-0885	21049-0887	21049-0889	21049-0891	21049-0893	21049-0895	21049-0897	
20	21049-0255	21049-0257	21049-0259	21049-0261	21049-0263	21049-0265	21049-0267	21049-0269	21049-0271	21049-0273	21049-0275	
21	21049-0899	21049-0901	21049-0903	21049-0905	21049-0907	21049-0909	21049-0911	21049-0913	21049-0915	21049-0917	21049-0919	
22	21049-0277	21049-0279	21049-0281	21049-0283	21049-0285	21049-0287	21049-0289	21049-0291	21049-0293	21049-0295	21049-0297	Yes
23	21049-0921	21049-0923	21049-0925	21049-0927	21049-0929	21049-0931	21049-0933	21049-0935	21049-0937	21049-0939	21049-0941	
24	21049-0299	21049-0301	21049-0303	21049-0305	21049-0307	21049-0309	21049-0311	21049-0313	21049-0315	21049-0317	21049-0319	
25	21049-0943	21049-0945	21049-0947	21049-0949	21049-0951	21049-0953	21049-0955	21049-0957	21049-0959	21049-0961	21049-0963	
26	21049-0321	21049-0323	21049-0325	21049-0327	21049-0329	21049-0331	21049-0333	21049-0335	21049-0337	21049-0339	21049-0341	
27	21049-0965	21049-0967	21049-0969	21049-0971	21049-0973	21049-0975	21049-0977	21049-0979	21049-0981	21049-0983	21049-0985	
28	21049-0343	21049-0345	21049-0347	21049-0349	21049-0351	21049-0353	21049-0355	21049-0357	21049-0359	21049-0361	21049-0363	
29	21049-0987	21049-0989	21049-0991	21049-0993	21049-0995	21049-0997	21049-0999	21049-1001	21049-1003	21049-1005	21049-1007	
30	21049-0365	21049-0367	21049-0369	21049-0371	21049-0373	21049-0375	21049-0377	21049-0379	21049-0381	21049-0383	21049-0385	
31	21049-1009	21049-1011	21049-1013	21049-1015	21049-1017	21049-1019	21049-1021	21049-1023	21049-1025	21049-1027	21049-1029	
32	21049-0387	21049-0389	21049-0391	21049-0393	21049-0395	21049-0397	21049-0399	21049-0401	21049-0403	21049-0405	21049-0407	
33	21049-1031	21049-1033	21049-1035	21049-1037	21049-1039	21049-1041	21049-1043	21049-1045	21049-1047	21049-1049	21049-1051	
34	21049-0409	21049-0411	21049-0413	21049-0415	21049-0417	21049-0419	21049-0421	21049-0423	21049-0425	21049-0427	21049-0429	
35	21049-1053	21049-1055	21049-1057	21049-1059	21049-1061	21049-1063	21049-1065	21049-1067	21049-1069	21049-1071	21049-1073	
36	21049-0431	21049-0433	21049-0435	21049-0437	21049-0439	21049-0441	21049-0443	21049-0445	21049-0447	21049-0449	21049-0451	
37	21049-1075	21049-1077	21049-1079	21049-1081	21049-1083	21049-1085	21049-1087	21049-1089	21049-1091	21049-1093	21049-1095	
38	21049-0453	21049-0455	21049-0457	21049-0459	21049-0461	21049-0463	21049-0465	21049-0467	21049-0469	21049-0471	21049-0473	
39	21049-1097	21049-1099	21049-1101	21049-1103	21049-1105	21049-1107	21049-1109	21049-1111	21049-1113	21049-1115	21049-1117	
40	21049-0475	21049-0477	21049-0479	21049-0481	21049-0483	21049-0485	21049-0487	21049-0489	21049-0491	21049-0493	21049-0495	

Custom jumpers available

1.25mm (.049") Pitch Premo-Flex™ Flat Flex Cable Jumpers

21049
Standard



Molex introduces a complete line of 1.25mm (.049") pitch Flat Flex Cable jumpers. These jumpers are used to connect 2 PC boards and terminate to either ZIF or Non-ZIF FFC Connectors.

Molex 1.25mm (.049") Flat Flex Cable jumpers are available in a wide variety of lengths and circuit sizes. These standard lengths are easy to order and feature shorter lead times.

Reference Information
UL Style No.: 2896
Mates With: Any 1.25mm (.049") pitch Molex FFC/FPC connector
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 1.2A

Physical
Strip Length: 5.0mm (.197")
Reinforcement Length: 10.00mm (.394")
Width: (N + 1) 1.25mm
Span: (N - 1) 1.25mm
Margin: 0.85mm (.033")
Conductor Width: 0.80mm (.031")
Conductor Thickness: 0.10mm (.004")
End Thickness: 0.30 ± 0.05mm (.012 ± .002")

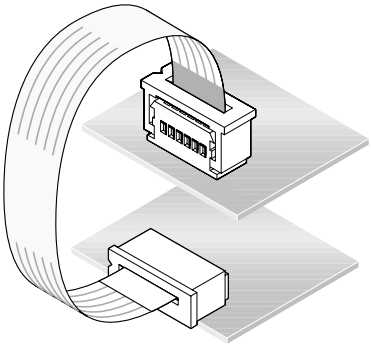
Type D FFC Jumpers—Contacts on opposite sides (Preferred version in North America)

Circuits	Order No.											Lead-free
	Overall Length											
	30.00mm (1.181")	51.00mm (2.00")	76.00mm (3.00")	102.00mm (4.00")	127.00mm (5.00")	152.00mm (6.00")	178.00mm (7.00")	203.00mm (8.00")	229.00mm (9.00")	254.00mm (10.00")	305.00mm (12.00")	
4	21049-0700	21049-0702	21049-0704	21049-0706	21049-0708	21049-0710	21049-0712	21049-0714	21049-0716	21049-0718	21049-0720	
5	21049-0722	21049-0724	21049-0726	21049-0728	21049-0730	21049-0732	21049-0734	21049-0736	21049-0738	21049-0740	21049-0742	
6	21049-0102	21049-0104	21049-0106	21049-0108	21049-0110	21049-0112	21049-0114	21049-0116	21049-0118	21049-0120	21049-0122	
7	21049-0744	21049-0746	21049-0748	21049-0750	21049-0752	21049-0754	21049-0756	21049-0758	21049-0760	21049-0762	21049-0764	
8	20149-0124	20149-0126	21049-0128	21049-0130	21049-0132	21049-0134	21049-0136	21049-0138	21049-0140	21049-0142	21049-0144	
9	21049-0766	21049-0768	21049-0770	21049-0772	21049-0774	21049-0776	21049-0778	21049-0780	21049-0782	21049-0784	21049-0786	
10	21049-0146	20149-0148	21049-0150	21049-0152	21049-0154	21049-0156	21049-0158	21049-0160	21049-0162	21049-0164	21049-0166	
11	21049-0788	21049-0790	21049-0792	21049-0794	21049-0796	21049-0798	21049-0800	21049-0802	21049-0804	21049-0806	21049-0808	
12	21049-0168	21049-0170	21049-0172	21049-0174	21049-0176	21049-0178	21049-0180	21049-0182	21049-0184	21049-0186	21049-0188	
13	21049-0810	21049-0812	21049-0814	21049-0816	21049-0818	21049-0820	21049-0822	21049-0824	21049-0826	21049-0828	21049-0830	
14	21049-0190	21049-0192	21049-0194	21049-0196	21049-0198	21049-0200	21049-0202	21049-0204	21049-0206	21049-0208	21049-0210	
15	21049-0832	21049-0834	21049-0836	21049-0838	21049-0840	21049-0842	21049-0844	21049-0846	21049-0848	21049-0850	21049-0852	
16	21049-0212	21049-0214	21049-0216	21049-0218	21049-0220	21049-0222	21049-0224	21049-0226	21049-0228	21049-0230	21049-0232	
17	21049-0854	21049-0856	21049-0858	21049-0860	21049-0862	21049-0864	21049-0866	21049-0868	21049-0870	21049-0872	21049-0874	
18	21049-0234	21049-0236	21049-0238	21049-0240	21049-0242	21049-0244	21049-0246	21049-0248	21049-0250	21049-0252	21049-0254	
19	21049-0876	21049-0878	21049-0880	21049-0882	21049-0884	21049-0886	21049-0888	21049-0890	21049-0892	21049-0894	21049-0896	
20	21049-0256	21049-0258	21049-0260	21049-0262	21049-0264	21049-0266	21049-0268	21049-0270	21049-0272	21049-0274	21049-0276	
21	21049-0898	21049-0900	21049-0902	21049-0904	21049-0906	21049-0908	21049-0910	21049-0912	21049-0914	21049-0916	21049-0918	
22	21049-0278	21049-0280	21049-0282	21049-0284	21049-0286	21049-0288	21049-0290	21049-0292	21049-0294	21049-0296	21049-0298	Yes
23	21049-0920	21049-0922	21049-0924	21049-0926	21049-0928	21049-0930	21049-0932	21049-0934	21049-0936	21049-0938	21049-0940	
24	21049-0300	21049-0302	21049-0304	21049-0306	21049-0308	21049-0310	21049-0312	21049-0314	21049-0316	21049-0318	21049-0320	
25	21049-0942	21049-0944	21049-0946	21049-0948	21049-0950	21049-0952	21049-0954	21049-0956	21049-0958	21049-0960	21049-0962	
26	21049-0322	21049-0324	21049-0326	21049-0328	21049-0330	21049-0332	21049-0334	21049-0336	21049-0338	21049-0340	21049-0342	
27	21049-0964	21049-0966	21049-0968	21049-0970	21049-0972	21049-0974	21049-0976	21049-0978	21049-0980	21049-0982	21049-0984	
28	21049-0344	21049-0346	21049-0348	21049-0350	21049-0352	21049-0354	21049-0356	21049-0358	21049-0360	21049-0362	21049-0364	
29	21049-0986	21049-0988	21049-0990	21049-0992	21049-0994	21049-0996	21049-0998	21049-1000	21049-1002	21049-1004	21049-1006	
30	21049-0366	21049-0368	21049-0370	21049-0372	21049-0374	21049-0376	21049-0378	21049-0380	21049-0382	21049-0384	21049-0386	
31	21049-1008	21049-1010	21049-1012	21049-1014	21049-1016	21049-1018	21049-1020	21049-1022	21049-1024	21049-1026	21049-1028	
32	21049-0388	21049-0390	21049-0392	21049-0394	21049-0396	21049-0398	21049-0400	21049-0402	21049-0404	21049-0406	21049-0408	
33	21049-1030	21049-1032	21049-1034	21049-1036	21049-1038	21049-1040	21049-1042	21049-1044	21049-1046	21049-1048	21049-1050	
34	21049-0410	21049-0412	21049-0414	21049-0416	21049-0418	21049-0420	21049-0422	21049-0424	21049-0426	21049-0428	21049-0430	
35	21049-1052	21049-1054	21049-1056	21049-1058	21049-1060	21049-1062	21049-1064	21049-1066	21049-1068	21049-1070	21049-1072	
36	21049-0432	21049-0434	21049-0436	21049-0438	21049-0440	21049-0442	21049-0444	21049-0446	21049-0448	21049-0450	21049-0452	
37	21049-1074	21049-1076	21049-1078	21049-1080	21049-1082	21049-1084	21049-1086	21049-1088	21049-1090	21049-1092	21049-1094	
38	21049-0454	21049-0456	21049-0458	21049-0460	21049-0462	21049-0464	21049-0466	21049-0468	21049-0470	21049-0472	21049-0474	
39	21049-1096	21049-1098	21049-1100	21049-1102	21049-1104	21049-1106	21049-1108	21049-1110	21049-1112	21049-1114	21049-1116	
40	21049-0476	21049-0478	21049-0480	21049-0482	21049-0484	21049-0486	21049-0488	21049-0490	21049-0492	21049-0494	21049-0496	

Custom jumpers available

1.25mm (.049") Pitch Premo-Flex™ Flat Flex Cable Jumpers

98268
Standard



Molex introduces a complete line of 1.25mm (.049") pitch Flat Flex Cable jumpers. These jumpers are used to connect 2 PC boards and terminate to either ZIF or Non-ZIF FFC connectors.

Molex 1.25mm (.049") Flat Flex Cable jumpers are available in a wide variety of lengths and circuit sizes. These standard lengths are easy to order and feature shorter lead times.

We are also able to offer customized lengths and circuit sizes.

Reference Information
Product Specification: PS-98268-001
Packaging: Box
UL Style No.: 20706
Mates With: Any 1.25mm (.049") Pitch Molex FFC/FPC connector
Designed In: Millimeters

Electrical
Voltage: 60V
Current: 1.4A

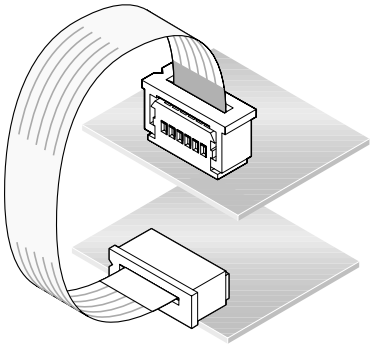
Physical
Strip Length: 5.0mm (.197")
Reinforcement Length: 10.0mm (.394")
Width: (N + 1) 1.25mm
Span: (N - 1) 1.25mm
Margin: 0.85mm (.033")
Conductor Width: 0.80mm (.031")
Conductor Thickness: 0.10mm (.004")
End Thickness: 0.30 ± 0.05mm (.012 ± .002")

Type A Jumpers—Contacts on same side (Preferred version in Europe)

Circuits	Order No.											Lead-free
	Overall Length											
	30mm (1.81")	51mm (2.00")	76mm (3.00")	102mm (4.00")	127mm (5.00")	152mm (6.00")	178mm (7.00")	203mm (8.00")	229mm (9.00")	254mm (10.00")	305mm (12.00")	
4	98268-0701	98268-0703	98268-0705	98268-0707	98268-0709	98268-0711	98268-0713	98268-0715	98268-0717	98268-0719	98268-0721	
5	98268-0723	98268-0725	98268-0727	98268-0729	98268-0731	98268-0733	98268-0735	98268-0737	98268-0739	98268-0741	98268-0743	
6	98268-0101	98268-0103	98268-0105	98268-0107	98268-0109	98268-0111	98268-0113	98268-0115	98268-0117	98268-0119	98268-0121	
7	98268-0745	98268-0747	98268-0749	98268-0751	98268-0753	98268-0755	98268-0757	98268-0759	98268-0761	98268-0763	98268-0765	
8	98268-0123	98268-0125	98268-0127	98268-0129	98268-0131	98268-0133	98268-0135	98268-0137	98268-0139	98268-0141	98268-0143	
9	98268-0767	98268-0769	98268-0771	98268-0773	98268-0775	98268-0777	98268-0779	98268-0781	98268-0783	98268-0785	98268-0787	
10	98268-0145	98268-0147	98268-0149	98268-0151	98268-0153	98268-0155	98268-0157	98268-0159	98268-0161	98268-0163	98268-0165	
11	98268-0789	98268-0791	98268-0793	98268-0795	98268-0797	98268-0799	98268-0801	98268-0803	98268-0805	98268-0807	98268-0809	
12	98268-0167	98268-0169	98268-0171	98268-0173	98268-0175	98268-0177	98268-0179	98268-0181	98268-0183	98268-0185	98268-0187	
13	98268-0811	98268-0813	98268-0815	98268-0817	98268-0819	98268-0821	98268-0823	98268-0825	98268-0827	98268-0829	98268-0831	
14	98268-0189	98268-0191	98268-0193	98268-0195	98268-0197	98268-0199	98268-0201	98268-0203	98268-0205	98268-0207	98268-0209	
15	98268-0833	98268-0835	98268-0837	98268-0839	98268-0841	98268-0843	98268-0845	98268-0847	98268-0849	98268-0851	98268-0853	
16	98268-0211	98268-0213	98268-0215	98268-0217	98268-0219	98268-0221	98268-0223	98268-0225	98268-0227	98268-0229	98268-0231	
17	98268-0855	98268-0857	98268-0859	98268-0861	98268-0863	98268-0865	98268-0867	98268-0869	98268-0871	98268-0873	98268-0875	
18	98268-0233	98268-0235	98268-0237	98268-0239	98268-0241	98268-0243	98268-0245	98268-0247	98268-0249	98268-0251	98268-0253	
19	98268-0877	98268-0879	98268-0881	98268-0883	98268-0885	98268-0887	98268-0889	98268-0891	98268-0893	98268-0895	98268-0897	
20	98268-0255	98268-0257	98268-0259	98268-0261	98268-0263	98268-0265	98268-0267	98268-0269	98268-0271	98268-0273	98268-0275	
21	98268-0899	98268-0901	98268-0903	98268-0905	98268-0907	98268-0909	98268-0911	98268-0913	98268-0915	98268-0917	98268-0919	
22	98268-0277	98268-0279	98268-0281	98268-0283	98268-0285	98268-0287	98268-0289	98268-0291	98268-0293	98268-0295	98268-0297	Yes
23	98268-0921	98268-0923	98268-0925	98268-0927	98268-0929	98268-0931	98268-0933	98268-0935	98268-0937	98268-0939	98268-0941	
24	98268-0299	98268-0301	98268-0303	98268-0305	98268-0307	98268-0309	98268-0311	98268-0313	98268-0315	98268-0317	98268-0319	
25	98268-0943	98268-0945	98268-0947	98268-0949	98268-0951	98268-0953	98268-0955	98268-0957	98268-0959	98268-0961	98268-0963	
26	98268-0321	98268-0323	98268-0325	98268-0327	98268-0329	98268-0331	98268-0333	98268-0335	98268-0337	98268-0339	98268-0341	
27	98268-0965	98268-0967	98268-0969	98268-0971	98268-0973	98268-0975	98268-0977	98268-0979	98268-0981	98268-0983	98268-0985	
28	98268-0343	98268-0345	98268-0347	98268-0349	98268-0351	98268-0353	98268-0355	98268-0357	98268-0359	98268-0361	98268-0363	
29	98268-0987	98268-0989	98268-0991	98268-0993	98268-0995	98268-0997	98268-0999	98268-1001	98268-1003	98268-1005	98268-1007	
30	98268-0365	98268-0367	98268-0369	98268-0371	98268-0373	98268-0375	98268-0377	98268-0379	98268-0381	98268-0383	98268-0385	
31	98268-1009	98268-1011	98268-1013	98268-1015	98268-1017	98268-1019	98268-1021	98268-1023	98268-1025	98268-1027	98268-1029	
32	98268-0387	98268-0389	98268-0391	98268-0393	98268-0395	98268-0397	98268-0399	98268-0401	98268-0403	98268-0405	98268-0407	
33	98268-1031	98268-1033	98268-1035	98268-1037	98268-1039	98268-1041	98268-1043	98268-1045	98268-1047	98268-1049	98268-1051	
34	98268-0409	98268-0411	98268-0413	98268-0415	98268-0417	98268-0419	98268-0421	98268-0423	98268-0425	98268-0427	98268-0429	
35	98268-1053	98268-1055	98268-1057	98268-1059	98268-1061	98268-1063	98268-1065	98268-1067	98268-1069	98268-1071	98268-1073	
36	98268-0431	98268-0433	98268-0435	98268-0437	98268-0439	98268-0441	98268-0443	98268-0445	98268-0447	98268-0449	98268-0451	
37	98268-1075	98268-1077	98268-1079	98268-1081	98268-1083	98268-1085	98268-1087	98268-1089	98268-1091	98268-1093	98268-1095	
38	98268-0453	98268-0455	98268-0457	98268-0459	98268-0461	98268-0463	98268-0465	98268-0467	98268-0469	98268-0471	98268-0473	
39	98268-1097	98268-1099	98268-1101	98268-1103	98268-1105	98268-1107	98268-1109	98268-1111	98268-1113	98268-1115	98268-1117	
40	98268-0475	98268-0477	98268-0479	98268-0481	98268-0483	98268-0485	98268-0487	98268-0489	98268-0491	98268-0493	98268-0495	

1.25mm (.049") Pitch Premo-Flex™ Flat Flex Cable Jumpers

98268
Standard



Molex introduces a complete line of 1.25mm (.049") pitch Flat Flex Cable jumpers. These jumpers are used to connect 2 PC boards and terminate to either ZIF or Non-ZIF FFC connectors.

Molex 1.25mm (.049") Flat Flex Cable jumpers are available in a wide variety of lengths and circuit sizes. These standard lengths are easy to order and feature shorter lead times.

We are also able to offer customized lengths and circuit sizes.

Reference Information
Product Specification: PS-98268-001
Packaging: Box
UL Style No.: 20706
Mates With: Any 1.25mm (.049") Pitch Molex FFC/FPC connector
Designed In: Millimeters

Electrical
Voltage: 60V
Current: 1.4A

Physical
Strip Length: 5.0mm (.197")
Reinforcement Length: 10.0mm (.394")
Width: (N + 1) 1.25mm
Span: (N - 1) 1.25mm
Margin: 0.85mm (.033")
Conductor Width: 0.80mm (.031")
Conductor Thickness: 0.10mm (.004")
End Thickness: 0.30 ± 0.05mm (.012 ± .002")

Type D Jumpers—Contacts on opposite side (Preferred version in Europe)

Circuits	Order No. Overall Length											Lead-free
	30mm (1.81")	51mm (2.00")	76mm (3.00")	102mm (4.00")	127mm (5.00")	152mm (6.00")	178mm (7.00")	203mm (8.00")	229mm (9.00")	254mm (10.00")	305mm (12.00")	
4	98268-0700	98268-0702	98268-0704	98268-0706	98268-0708	98268-0710	98268-0712	98268-0714	98268-0716	98268-0718	98268-0720	
5	98268-0722	98268-0724	98268-0726	98268-0728	98268-0730	98268-0732	98268-0734	98268-0736	98268-0738	98268-0740	98268-0742	
6	98268-0102	98268-0104	98268-0106	98268-0108	98268-0110	98268-0112	98268-0114	98268-0116	98268-0118	98268-0120	98268-0122	
7	98268-0744	98268-0746	98268-0748	98268-0750	98268-0752	98268-0754	98268-0756	98268-0758	98268-0760	98268-0762	98268-0764	
8	98268-0124	98268-0126	98268-0128	98268-0130	98268-0132	98268-0134	98268-0136	98268-0138	98268-0140	98268-0142	98268-0144	
9	98268-0766	98268-0768	98268-0770	98268-0772	98268-0774	98268-0776	98268-0778	98268-0780	98268-0782	98268-0784	98268-0786	
10	98268-0146	98268-0148	98268-0150	98268-0152	98268-0154	98268-0156	98268-0158	98268-0160	98268-0162	98268-0164	98268-0166	
11	98268-0788	98268-0790	98268-0792	98268-0794	98268-0796	98268-0798	98268-0800	98268-0802	98268-0804	98268-0806	98268-0808	
12	98268-0168	98268-0170	98268-0172	98268-0174	98268-0176	98268-0178	98268-0180	98268-0182	98268-0184	98268-0186	98268-0188	
13	98268-0810	98268-0812	98268-0814	98268-0816	98268-0818	98268-0820	98268-0822	98268-0824	98268-0826	98268-0828	98268-0830	
14	98268-0190	98268-0192	98268-0194	98268-0196	98268-0198	98268-0200	98268-0202	98268-0204	98268-0206	98268-0208	98268-0210	
15	98268-0832	98268-0834	98268-0836	98268-0838	98268-0840	98268-0842	98268-0844	98268-0846	98268-0848	98268-0850	98268-0852	
16	98268-0212	98268-0214	98268-0216	98268-0218	98268-0220	98268-0222	98268-0224	98268-0226	98268-0228	98268-0230	98268-0232	
17	98268-0854	98268-0856	98268-0858	98268-0860	98268-0862	98268-0864	98268-0866	98268-0868	98268-0870	98268-0872	98268-0874	
18	98268-0234	98268-0236	98268-0238	98268-0240	98268-0242	98268-0244	98268-0246	98268-0248	98268-0250	98268-0252	98268-0254	
19	98268-0876	98268-0878	98268-0880	98268-0882	98268-0884	98268-0886	98268-0888	98268-0890	98268-0892	98268-0894	98268-0896	
20	98268-0256	98268-0258	98268-0260	98268-0262	98268-0264	98268-0266	98268-0268	98268-0270	98268-0272	98268-0274	98268-0276	
21	98268-0898	98268-0900	98268-0902	98268-0904	98268-0906	98268-0908	98268-0910	98268-0912	98268-0914	98268-0916	98268-0918	
22	98268-0278	98268-0280	98268-0282	98268-0284	98268-0286	98268-0288	98268-0290	98268-0292	98268-0294	98268-0296	98268-0298	Yes
23	98268-0920	98268-0922	98268-0924	98268-0926	98268-0928	98268-0930	98268-0932	98268-0934	98268-0936	98268-0938	98268-0940	
24	98268-0300	98268-0302	98268-0304	98268-0306	98268-0308	98268-0310	98268-0312	98268-0314	98268-0316	98268-0318	98268-0320	
25	98268-0942	98268-0944	98268-0946	98268-0948	98268-0950	98268-0952	98268-0954	98268-0956	98268-0958	98268-0960	98268-0962	
26	98268-0322	98268-0324	98268-0326	98268-0328	98268-0330	98268-0332	98268-0334	98268-0336	98268-0338	98268-0340	98268-0342	
27	98268-0964	98268-0966	98268-0968	98268-0970	98268-0972	98268-0974	98268-0976	98268-0978	98268-0980	98268-0982	98268-0984	
28	98268-0344	98268-0346	98268-0348	98268-0350	98268-0352	98268-0354	98268-0356	98268-0358	98268-0360	98268-0362	98268-0364	
29	98268-0986	98268-0988	98268-0990	98268-0992	98268-0994	98268-0996	98268-0998	98268-1000	98268-1002	98268-1004	98268-1006	
30	98268-0366	98268-0368	98268-0370	98268-0372	98268-0374	98268-0376	98268-0378	98268-0380	98268-0382	98268-0384	98268-0386	
31	98268-1008	98268-1010	98268-1012	98268-1014	98268-1016	98268-1018	98268-1020	98268-1022	98268-1024	98268-1026	98268-1028	
32	98268-0388	98268-0390	98268-0392	98268-0394	98268-0396	98268-0398	98268-0400	98268-0402	98268-0404	98268-0406	98268-0408	
33	98268-1030	98268-1032	98268-1034	98268-1036	98268-1038	98268-1040	98268-1042	98268-1044	98268-1046	98268-1048	98268-1050	
34	98268-0410	98268-0412	98268-0414	98268-0416	98268-0418	98268-0420	98268-0422	98268-0424	98268-0426	98268-0428	98268-0430	
35	98268-1052	98268-1054	98268-1056	98268-1058	98268-1060	98268-1062	98268-1064	98268-1066	98268-1068	98268-1070	98268-1072	
36	98268-0432	98268-0434	98268-0436	98268-0438	98268-0440	98268-0442	98268-0444	98268-0446	98268-0448	98268-0450	98268-0452	
37	98268-1074	98268-1076	98268-1078	98268-1080	98268-1082	98268-1084	98268-1086	98268-1088	98268-1090	98268-1092	98268-1094	
38	98268-0454	98268-0456	98268-0458	98268-0460	98268-0462	98268-0464	98268-0466	98268-0468	98268-0470	98268-0472	98268-0474	
39	98268-1096	98268-1098	98268-1100	98268-1102	98268-1104	98268-1106	98268-1108	98268-1110	98268-1112	98268-1114	98268-1116	
40	98268-0476	98268-0478	98268-0480	98268-0482	98268-0484	98268-0486	98268-0488	98268-0490	98268-0492	98268-0494	98268-0496	

Ribbon Cable Connectors

1.27mm (.050") Pitch – Picoflex™ PF-50
- IDT Connectors G-2
- Headers ..... G-3 to G-7
- Custom Cable Harness ..... G-7 to G-8

Connectors for 1.27mm (.050") Pitch Ribbon Cable – QF-50™
- Receptacles ..... G-11 to G-12
- Strain Relief G-12
- Shrouded Headers ..... G-13 to G-16

2.54mm (.010") Pitch Connectors – SL™ G-17

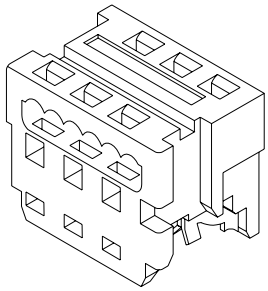
Wire Traps

2.00mm (.079") Pitch G-18

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

1.27mm (.050") Pitch Picoflex™ PF-50 Connector

90327
Low Profile, IDT



Features and Benefits
- 1-piece housing assures precise positioning of cable
- Molded-in polarization
- 4 points of contact with ribbon cable
- Preloaded contacts
- Accepts 28 or 26 AWG (7 strand) ribbon cable
- Tape option for high-speed termination, contact Molex for part numbers

Reference Information
Product Specification: PS-99020-0011
Packaging: Bag (tape optional)
Tooling Information: See end of section
UL File No.: E29179
CSA File No.: LR19980-181
Mates With: 90325, 90779, 90800, 90814, 91330 and 91714
Use Molex Cable: 6800, 8863 and 40158
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.2A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 750V rms
Insulation Resistance: 1000 Megohms min.

Mechanical
Mating Force: Tin—1.7N; Gold—1.1N
Unmating Force: Tin—0.25N; Gold—0.25N
Durability: Tin—30 cycles max.
Gold—100 cycles max. (using extraction tool)

Physical
Housing: White polyester, UL 94V-0
Contact: Phosphor Bronze Alloy
Plating: See Table
Cable Accommodation: 26 and 28 AWG stranded

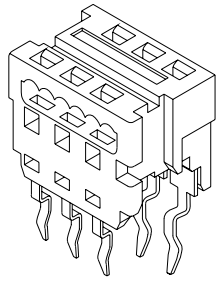
Circuits	Order No.		Lead-free
	Plating 1	Plating 2	
4	90327-0304	90327-3304	Yes
6	90327-0306	90327-3306	
8	90327-0308	90327-3308	
10	90327-0310	90327-3310	
12	90327-0312	90327-3312	
14	90327-0314	90327-3314	

Circuits	Order No.		Lead-free
	Plating 1	Plating 2	
16	90327-0316	90327-3316	Yes
18	90327-0318	90327-3318	
20	90327-0320	90327-3320	
22	90327-0322	90327-3322	
24	90327-0324	90327-3324	
26	90327-0326	90327-3326	

Plating 1: 2-4µm (80-160µ") Tin
Plating 2: 0.76µm (30µ") Select Gold

1.27mm (.050") Pitch Picoflex™ PF-50 Connector

90584
Low Profile, IDT Board-In



Features and Benefits
- For permanent wire-to-board connections
- Kinked solder tails for board retention during solder process
- Fits same board layout pattern as male header
- Height from board when soldered and terminated only 6.40mm (.252")
- 2 points of contact in IDT section
- Accepts 26 to 28 AWG, 7 strands, ribbon cable

Reference Information
Product Specification: PS-99020-0011
Packaging: Tube (2 options)
Tooling Information: See end of section
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.2A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 1000 Megohms min.

Physical
Housing: White polyester, UL 94V-0
Contact: Phosphor Bronze Alloy
Plating: 2-4µm (80-160µ") Tin over Nickel

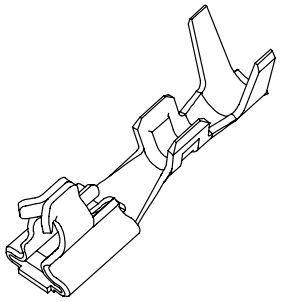
Circuits	Order No.		Lead-free
	Individual Tube	Stacked Tube	
4	90584-1304	90584-2304	Yes
6	90584-1306	90584-2306	
8	90584-1308	90584-2308	
10	90584-1310	90584-2310	
12	90584-1312	90584-2312	
14	90584-1314	90584-2314	

Circuits	Order No.		Lead-free
	Individual Tube	Stacked Tube	
16	90584-1316	90584-2316	Yes
18	90584-1318	90584-2318	
20	90584-1320	90584-2320	
22	90584-1322	90584-2322	
24	90584-1324	90584-2324	
26	90584-1326	90584-2326	

Note: Stacked tube is a group of 7 individual tubes in a stack

1.27mm (.050") Pitch Picoflex™ PF-50 Crimp Terminal

91821



Features and Benefits
- High current capability
- Two points of contact with male pin
- Can be used in low current/high temperature/ high vibration applications

Reference Information
Product Specification: PS-99020-0011
Packaging: Reel
Mates With: 90814, 90325, 90779, 90800, 91714 and 91330
Use With: 91935
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 2.4A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 750V rms
Insulation Resistance: 1000 Megohms min.

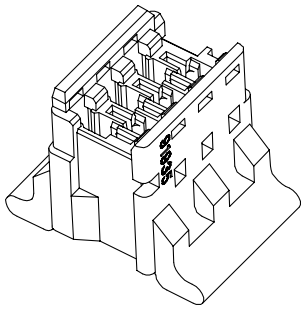
Mechanical
Contact Insertion Force: 1.7N
Contact Retention to Housing: 15N
Wire Pull-Out Force: 10 to 30N
Durability: 30 cycles min.

Physical
Contact: Phosphor Bronze
Plating: Contact Area—Tin/Gold
Underplating—Nickel
Insulation Diameter: 1.50mm max.
Strip Length: 2.00 to 2.50mm
Wire Gauge: 24 to 28AWG

Order No.		Lead-free
Tin	Gold	
91821-0001	91821-0003	Yes

1.27mm (.050") Pitch Picoflex™ PF-50 Crimp Housing

91935



Features and Benefits
- Glow wire compatible 750˚C
- Termination windows for visual check on crimp termination
- Friction lock
- Polarized housing
- Finger grips for ease of use

Reference Information
Product Specification: PS-99020-0011
Packaging: Bag
Mates With: 90814, 90325, 90779, 90800, 91714 and 91330
Use With: 91821
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 2.4A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 750V rms
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Insertion Force: 1.7N
Contact Retention to Housing: 15N
Durability: 30 cycles min.

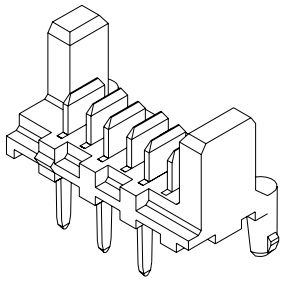
Physical
Housing: Natural 30% glass-filled PET, UL 94V-0

Circuits	Order No.	Lead-free
4	91935-9004	Yes
6	91935-9006	
8	91935-9008	
10	91935-9010	
12	91935-9012	
14	91935-9014	

Circuits	Order No.	Lead-free
16	91935-9016	Yes
18	91935-9018	
20	91935-9020	
22	91935-9022	
24	91935-9024	
26	91935-9026	

1.27mm (.050") Pitch Picoflex™ PF-50 Header

90325
Low Profile



Features and Benefits
- Polarizing side posts and PCB pegs
- Stamped contacts with in-line, flat blades
- 2 points of contact with female terminal
- Rigid, staggered solder tails
- Friction lock
- Tube option packaging for robotic delivery, contact Molex for part numbers

Reference Information
Product Specification: PS-99020-0011
Packaging: Bag or tube
UL File No.: E29179
CSA File No.: LR19980-181
Mates With: 90327 and 91935
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.2A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 750V rms
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 7N
Mating Force: Tin—1.7N; Gold—1.1N
Unmating Force: Tin—0.25N; Gold—0.25N
Durability: Tin—30 cycles max.
Gold—100 cycles max. (using extraction tool)

Physical
Housing: Black 15% glass-filled polyester, UL 94V-0
Contact: Brass
Plating: See Table

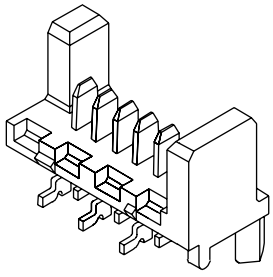
Circuits	Order No.		Lead-free
	Plating 1	Plating 2	
4	90325-0004	90325-3004	Yes
6	90325-0006	90325-3006	
8	90325-0008	90325-3008	
10	90325-0010	90325-3010	
12	90325-0012	90325-3012	
14	90325-0014	90325-3014	
16	90325-0016	90325-3016	

Circuits	Order No.		Lead-free
	Plating 1	Plating 2	
14	90325-0014	90325-3014	Yes
16	90325-0016	90325-3016	
18	90325-0018	90325-3018	
20	90325-0020	90325-3020	
22	90325-0022	90325-3022	
24	90325-0024	90325-3024	
26	90325-0026	90325-3026	

Plating 1: 3-5µm (120-200µ") Tin
Plating 2: 0.76µm (30µ") Select Gold

1.27mm (.050") Pitch Picoflex™ PF-50 Header

90814
SMT



Features and Benefits
- Polarizing side posts and PCB pegs
- Stamped SMT contacts with in-line, flat blades
- 2 points of contact with female terminal
- Rigid, staggered SMT solder tails
- Friction lock

Reference Information
Product Specification: PS-99020-0011
Packaging: Tube or blister pack (contact Molex)
Mates With: 90327 and 91935
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.2A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 750V rms
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 7N
Mating Force: Tin—1.7N; Gold—1.1N
Unmating Force: Tin—0.25N; Gold—0.25N
Durability: Tin—30 cycles max.
Gold—100 cycles max. (using extraction tool)

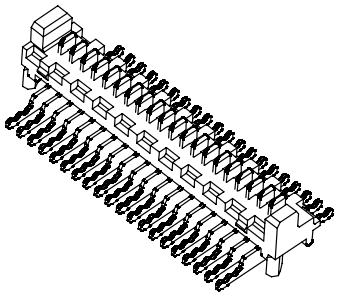
Physical
Housing: Natural 30% glass-filled nylon, UL 94V-0
Contact: Brass
Plating: See Table

Circuits	Order No.				Lead-free
	Tube Pack		Blister Pack		
	120-200µ" (3-5µm) Tin	30µ" (0.76µm) Select Gold	120-200µ" (3-5µm) Tin	30µ" (0.76µm) Select Gold	
4	90814-0804	90814-3804	90814-0904	90814-3904	Yes
6	90814-0806	90814-3806	90814-0906	90814-3906	
8	90814-0808	90814-3808	90814-0908	90814-3908	
10	90814-0810	90814-3810	90814-0910	90814-3910	
12	90814-0812	90814-3812	90814-0912	90814-3912	
14	90814-0814	90814-3814	90814-0914	90814-3914	
16	90814-0816	90814-3816	90814-0916	90814-3916	
18	90814-0818	90814-3818	90814-0918	90814-3918	
20	90814-0820	90814-3820	90814-0920	90814-3920	
22	90814-0822	90814-3822	90814-0922	90814-3922	
24	90814-0824	90814-3824	90814-0924	90814-3924	
26	90814-0826	90814-3826	90814-0926	90814-3926	

1.27mm (.050") Pitch Picoflex™ PF-50 Header

91330

Low Profile, Bottom Entry SMT



Features and Benefits

- Polarizing side posts and PCB pegs
- Stamped SMT contacts
- Two points of contact with female terminal
- Friction lock
- Can be used in RoHS lead-free process up to 260°C
- Kapton tape for pick and place during SMT assembly
- Low profile application which creates a double-sided board effect with a single-side SMT process

Reference Information

Product Specification: PS-99020-0011
Packaging: Tape and Reel
Mates With: 90327 and 91935
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 1.2 to 2.4A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 750V rms
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Insertion Force: 1.7N
Contact Retention to Housing: 7N
Durability: 30 cycles max.

Physical

Housing: Natural 30% glass-filled Nylon, UL 94V-0
Contact: Brass
Plating: Contact Area—Tin
Solder Tail Area—Tin
Underplating—Tin
PCB Thickness: 1.57mm ±0.13

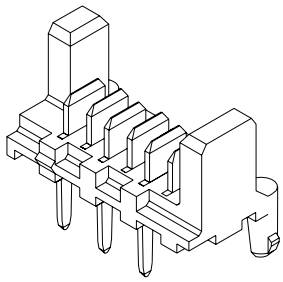
Circuits	Order No.	Lead-free
6	91330-0006	Yes
8	91330-0008	
10	91330-0010	
12	91330-0012	
14	91330-0014	
16	91330-0016	

Circuits	Order No.	Lead-free
18	91330-0018	Yes
20	91330-0020	
22	91330-0022	
24	91330-0024	
26	91330-0026	

1.27mm (.050") Pitch Picoflex™ PF-50 Header

90779

Low Profile High Temperature



Features and Benefits

- Polarizing side posts and PCB pegs
- Stamped contacts with in-line, flat blades
- 2 points of contact with female terminal
- Rigid, staggered solder tails
- Friction Lock
- High-temperature Surface Mount Compatible housing

Reference Information

Product Specification: PS-99020-0011
Packaging: Bag (contact Molex for tube part numbers)
Mates With: 90327 and 91935
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 1.2A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 750V rms
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 7N
Mating Force: Tin—1.7N; Gold—1.1N
Unmating Force: Tin—0.25N; Gold—0.25N
Durability: Tin—30 cycles max.
Gold—100 cycles max. (using extraction tool)

Physical

Housing: Natural 30% glass-filled nylon, UL 94V-0
Contact: Brass
Plating: See Table

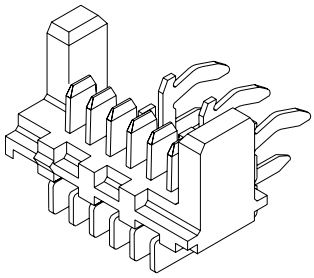
Circuits	Order No.		Lead-free
	Plating 1	Plating 2	
4	90779-0001	90779-3001	Yes
6	90779-0002	90779-3002	
8	90779-0003	90779-3003	
10	90779-0004	90779-3004	
12	90779-0005	90779-3005	
14	90779-0006	90779-3006	

Circuits	Order No.		Lead-free
	Plating 1	Plating 2	
16	90779-0007	90779-3007	Yes
18	90779-0008	90779-3008	
20	90779-0010	90779-3010	
22	90779-0011	90779-3011	
24	90779-0012	90779-3012	
26	90779-0013	90779-3013	

Plating 1: Tin 4-6µm (160-240µ")
Plating 2: Select Gold .76µm (30µ")

1.27mm (.050") Pitch Picoflex™ PF-50 Header

90800
Right Angle, Low Profile



Features and Benefits
- Polarizing side posts
- Stamped contacts
- 2 points of contact with female terminal
- Kinked solder tails for board retention during solder process
- Friction lock

Reference Information
Packaging: Tube
Tooling Information: See end of section
Mates With: 90327
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.2A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 7N
Mating Force: Tin—1.7N
Unmating Force: Tin—0.25N
Durability: Tin—30 cycles max. (using extraction tool)

Physical
Housing: Black 15% glass-filled polyester, UL 94V-0
Contact: Brass
Plating: See Table

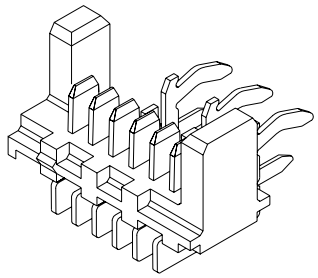
Circuits	Order No.		Lead-free
	Plating 1	Plating 2	
4	90800-0004	90800-3004	Yes
6	90800-0006	90800-3006	
8	90800-0008		
10	90800-0010		
12	90800-0012	90800-3012	
14	90800-0014	90800-3014	

Circuits	Order No.		Lead-free
	Plating 1	Plating 2	
16	90800-0016		Yes
18	90800-0018		
20	90800-0020	90800-3020	
22	90800-0022		
24	90800-0024	90800-3024	
26	90800-0026	90800-3026	

Plating 1: Tin 3-5µm Tin over Nickel
Plating 2: Select Gold .76µm (30µ")

1.27mm (.050") Pitch Picoflex™ PF-50 Header

91714
Right Angle, Low Profile High Temperature Through Hole



Features and Benefits
- Polarizing side posts
- Stamped contacts
- Two points of contact with female terminal
- Kinked solder tails for board retention during solder process
- Friction lock
- High-temperature Surface Mount Compatible housing

Reference Information
Product Specification: PS-99020-0011
Packaging: Tube
Mates With: 90327 and 91935
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.2 to 2.4A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 750V rms
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Insertion Force: 1.7N
Contact Retention to Housing: 7N
Durability: 30 cycles min.

Physical
Housing: Natural 30% glass-filled Nylon, UL 94V-0
Contact: Brass
Plating: Contact Area—Tin/Gold
Solder Tail Area—Tin
Underplating—Nickel
PCB Thickness: 1.60mm ±0.20

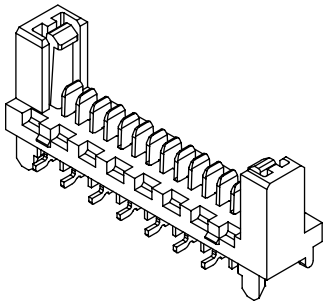
Circuits	Order No.		Lead-free
	Tin	Gold	
4	91714-0004	91714-3004	Yes
6	91714-0006	91714-3006	
8	91714-0008	91714-3008	
10	91714-0010	91714-3010	
12	91714-0012	91714-3012	
14	91714-0014	91714-3014	

Circuits	Order No.		Lead-free
	Tin	Gold	
16	91714-0016	91714-3016	Yes
18	91714-0018	91714-3018	
20	91714-0020	91714-3020	
22	91714-0022	91714-3022	
24	91714-0024	91714-3024	
26	91714-0026	91714-3026	

1.27mm (.050") Pitch Picoflex™ PF-50 Latched Header

90816

SMT



Features and Benefits

- Positive latch for increased retention
- Polarizing side posts and PCB pegs
- Stamped SMT contacts with in-line, flat blades
- 2 points of contact with female terminal
- Rigid, staggered SMT solder tails
- Can be used in RMS lead-free process up to 260°

Reference Information

Product Specification: PS-99020-0011
Packaging: Tube or blister pack (contact Molex)
Mates With: 90327
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 1.2A
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 750V rms
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 7N
Mating Force: Tin—1.7N; Gold—1.1N
Unmating Force: Tin—0.25N; Gold—0.25N
Durability: Tin—5 cycles max. (using extraction tool)
Gold—5 cycles max. (using extraction tool)

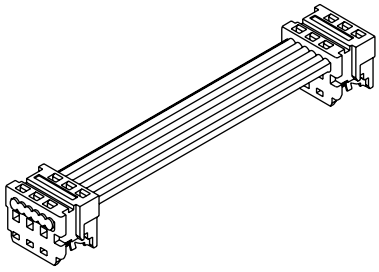
Physical

Housing: Black Polyphthalamide 30% glass-filled
Contact: Brass
Plating: See Table

Circuits	Order No.				Lead-free
	Tube Pack		Blister Pack		
	120-200µ" (3-5µm) Tin	30µ" (0.76µm) Select Gold	120-200µ" (3-5µm) Tin	30µ" (0.76µm) Select Gold	
4	90816-0004	90816-3004			Yes
6	90816-0006	90816-3006	90816-0206	90816-3206	
8	90816-0008	90816-3008	90816-0208	90816-3208	
10	90816-0010	90816-3010	90816-0210	90816-3210	
12	90816-0012	90816-3012	90816-0212	90816-3212	
14	90816-0014	90816-3014	90816-0214	90816-3214	
16	90816-0016	90816-3016	90816-0216	90816-3216	
18	90816-0018	90816-3018	90816-0218	90816-3218	
20	90816-0020	90816-3020	90816-0220	90816-3220	
22	90816-0022	90816-3022	90816-0222	90816-3222	
24	90816-0024	90816-3024	90816-0224	90816-3224	
26	90816-0026	90816-3026	90816-0226	90816-3226	

1.27mm (.050") Pitch Picoflex™ PF-50 Custom Cable Harness

92315



Features and Benefits

- Cable assembly with two 90327 connectors, C-style
- Sizes 4 to 26
- UL 2651, 28 AWG (7 strand) ribbon cable
- Lengths from 6 to 120cm

Reference Information

Packaging: Bag
Mates With: 90325, 90800, 90814, 90715 and 90779
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 1.2A

Mechanical

Mating Force: 1.7N
Unmating Force: 0.25N
Durability: 30 cycles max.

Physical

Housing: 6/6 nylon, UL 94V-0
Contact: Phosphor Bronze Alloy
Plating: 3 to 6µ" Tin
Insulation: Cable—Gray PVC
Wire Range: 28 AWG

Circuits	Order No.	Lead-free
4	92315-04XX	Yes
6	92315-06XX	
8	92315-08XX	
10	92315-10XX	
12	92315-12XX	
14	92315-14XX	

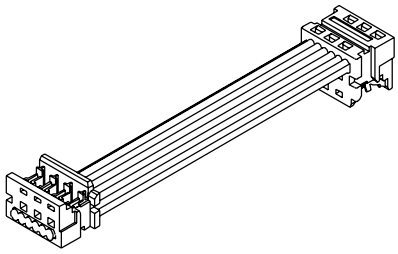
Circuits	Order No.	Lead-free
16	92315-16XX	Yes
18	92315-18XX	
20	92315-20XX	
22	92315-22XX	
24	92315-24XX	
26	92315-26XX	

Length	XX
6-99cm	06-99
100cm	01
105cm	02
110cm	03
115cm	04
120cm	05

Replace XX with length in cm (min. 6cm, max. 120cm), see table
Example: 92315-0832 is a cable with two 90327-0308, 32cm long

1.27mm (.050") Pitch Picoflex™ PF-50 Custom Cable Harness

92317



Features and Benefits
- Cable assembly with two 90327 connectors, Z-style
- Sizes 4 to 26
- UL 2651, 28 AWG (7 strand) ribbon cable
- Lengths from 6 to 120cm

Reference Information
Packaging: Bag
Mates With: 90325, 90800, 90814, 90715 and 90779
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.2A

Mechanical
Mating Force: 1.7N
Unmating Force: 0.25N
Durability: 30 cycles max.

Physical
Housing: 6/6 nylon, UL 94V-0
Contact: Phosphor Bronze Alloy
Plating: 3 to 6µ" Tin
Insulation: Cable—Gray PVC
Wire Range: 28 AWG

Circuits	Order No.	Lead-free
4	92317-04XX	Yes
6	92317-06XX	
8	92317-08XX	
10	92317-10XX	
12	92317-12XX	
14	92317-14XX	

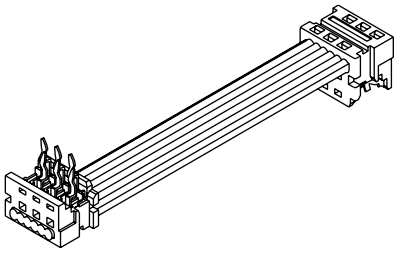
Circuits	Order No.	Lead-free
16	92317-16XX	Yes
18	92317-18XX	
20	92317-20XX	
22	92317-22XX	
24	92317-24XX	
26	92317-26XX	

Length	XX
6-99cm	06-99
100cm	01
105cm	02
110cm	03
115cm	04
120cm	05

Replace XX with length in cm (min. 6cm, max. 120cm), see table
Example: 92317-0832 is a cable with two 90327-0308, 32cm long

1.27mm (.050") Pitch Picoflex™ PF-50 Custom Cable Harness

92318



Features and Benefits
- Cable assembly with 90327 and 90584 connectors, Z-style
- Sizes 4 to 26
- UL 2651, 28 AWG (7 strand) ribbon cable
- Lengths from 6 to 120cm

Reference Information
Packaging: Tube
Mates With: 90325, 90800, 90814, 90715 and 90779
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.2A

Mechanical
Mating Force: 1.7N
Unmating Force: 0.25N
Durability: 30 cycles max.

Physical
Housing: 6/6 nylon, UL 94V-0
Contact: Phosphor Bronze Alloy
Plating: 3 to 6µ" Tin
Insulation: Cable—Gray PVC
Wire Range: 28 AWG

Circuits	Order No.	Lead-free
4	92318-04XX	Yes
6	92318-06XX	
8	92318-08XX	
10	92318-10XX	
12	92318-12XX	
14	92318-14XX	

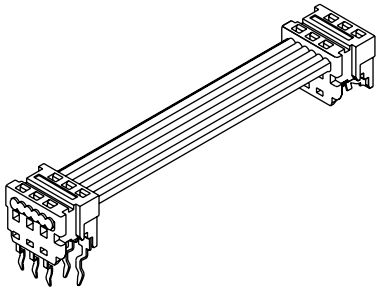
Circuits	Order No.	Lead-free
16	92318-16XX	Yes
18	92318-18XX	
20	92318-20XX	
22	92318-22XX	
24	92318-24XX	
26	92318-26XX	

Length	XX
6-99cm	06-99
100cm	01
105cm	02
110cm	03
115cm	04
120cm	05

Replace XX with length in cm (min. 6 cm, max. 120cm), see table
Example: 92318-0832 is a cable with 90327-0308 and 90584-2308, 32cm long

1.27mm (.050") Pitch Picoflex™ PF-50 Custom Cable Harness

92316



Features and Benefits

- Cable assembly with 90327 and 90584 connectors, C-style
- Sizes 4 to 26
- UL 2651, 28 AWG (7 strand) ribbon cable
- Lengths from 6 to 120cm

Reference Information

Packaging: Tube
Mates With: 90325, 90800, 90814, 90715 and 90779
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 1.2A

Mechanical

Mating Force: 1.7N
Unmating Force: 0.25N
Durability: 30 cycles max.

Physical

Housing: 6/6 nylon, UL 94V-0
Contact: Phosphor Bronze Alloy
Plating: 3 to 6µ" Tin
Insulation: Cable—Gray PVC
Wire Range: 28 AWG

Circuits	Order No.	Lead-free
4	92316-04XX	Yes
6	92316-06XX	
8	92316-08XX	
10	92316-10XX	
12	92316-12XX	
14	92316-14XX	

Circuits	Order No.	Lead-free
16	92316-16XX	Yes
18	92316-18XX	
20	92316-20XX	
22	92316-22XX	
24	92316-24XX	
26	92316-26XX	

Length	XX
6-99cm	06-99
100cm	01
105cm	02
110cm	03
115cm	04
120cm	05

Replace XX with length in cm (min. 6 cm, max. 120cm), see table
Example: 92316-0832 is a cable with 90327-0308 and 90584-2308, 32cm long

2.54mm (.100") Pitch QF-50™ Connector System For 1.27mm (.050") Pitch Ribbon Cable

Molex offers one of the widest ranges of connectors for 1.27mm (.050") ribbon cable on the market today. The QF-50 family features a variety of products conforming to industry-standard styles, such as DIN 41651, MIL-C-83503 keying, HE-10, etc. There is a choice of receptacle styles addressed to specific market requirements and a variety of designer-friendly headers.

Receptacles

Built to the highest-quality standards, 2 distinct styles are offered:

- 5320 series, incorporating a dual-contact beam independently acknowledged to out-perform others on the market
- 90635 series, a lower-cost single-contact beam product, offering all the technical performance of its dual-beam counterpart, while also offering MIL keying

Headers

Available in 3 styles:

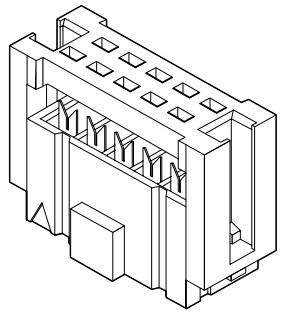
- Latch-eject style uniquely functioning with or without strain reliefs on receptacles and with ejectors that remain flush with the body, thus saving valuable PCB real estate
- Standard shrouded headers
- Low-profile headers in industry-standard styles with various options, including variable board location/ retention features and SMT-compatible insulators

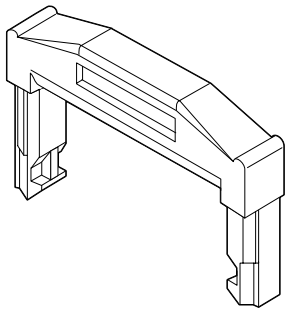
Application Tooling

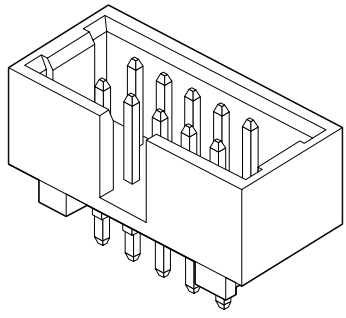
Molex has developed a choice of equipment that allows you to tailor your application tooling according to your volumes—from simple hand tools to high-volume automatic termination. Various packaging styles are available as options to optimize your applied cost. Please see end of section.

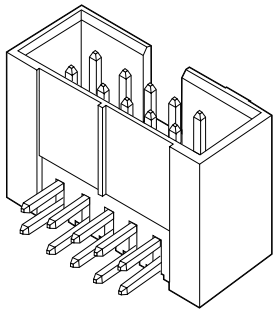
Cable

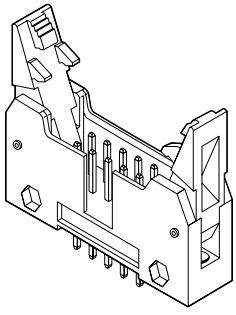
In line with the philosophy of offering our customers a complete interconnection solution, Molex also supplies the necessary cable to get you connected! Please refer to section H.

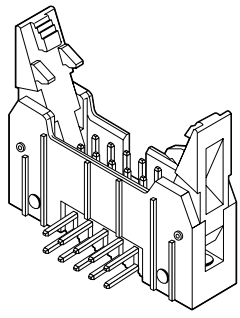






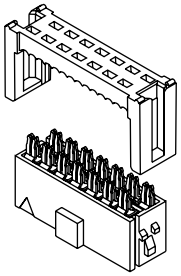






2.54mm (.100") Pitch QF-50™ Receptacle

5320-NA
Dual Row Unloaded Upper Housing



Features and Benefits
- Sizes 10 to 64 circuits
- For 1.27mm (.050") ribbon cable
- Single polarization

Reference Information
Packaging: Tray
Tooling Information: See section U
UL File No.: E29179
CSA File No.: LR19980
Mates With: 5330, 5332, 5340, 5342, 5576 and 5578
Use With: 90170 strain relief
Designed In: Millimeters

Electrical
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

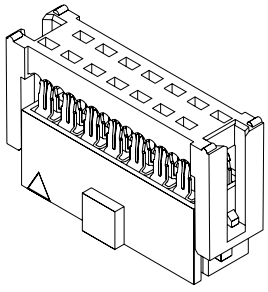
Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Phosphor Bronze Alloy
Plating: See Table
Cable Accommodation: 26 AWG stranded and 28 AWG stranded and solid
Insulation Range: 1.14mm (.045") diameter max.

Circuits	Order No.		Lead-free
	4µ" (0.1µm) Gold	35µ" (0.9µm) Tin	
10	39-53-4106	39-52-1104	Yes
14	39-53-4146	39-52-1144	
16	39-53-4166	39-52-1164	
20	39-53-4206	39-52-1204	
26	39-53-4266	39-52-1264	
30	39-53-4306	39-52-1304	

Circuits	Order No.		Lead-free
	4µ" (0.1µm) Gold	35µ" (0.9µm) Tin	
34	39-53-4346	39-52-1344	Yes
40	39-53-4406	39-52-1404	
50	39-53-4506	39-52-1504	
60	39-53-4606		
64	39-53-4646		

2.54mm (.100) Pitch QF-50™ Receptacle

5320-NB
Dual Row Preloaded Upper Housing



Features and Benefits
- Sizes 10 to 64 circuits
- For 1.27mm (.050") ribbon cable
- Single polarization

Reference Information
Packaging: Tray
UL File No.: E29179
CSA File No.: LR37272-P21
Mates With: 5330, 5332, 5340, 5342, 5576 and 5578
Use With: 90170 strain relief
Designed In: Millimeters

Electrical
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

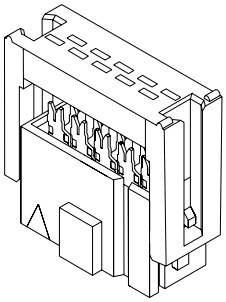
Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Phosphor Bronze Alloy
Plating: See Table
Cable Accommodation: 26 AWG stranded and 28 AWG stranded and solid
Insulation Range: 1.14mm (.045") diameter max.

Circuits	Order No.			Lead-free
	4µ" (0.1µm) Gold	30µ" (0.76µm) Gold	35µ" (0.9µm) Tin	
10	39-53-3109	39-53-4100	39-52-1105	Yes
14	39-53-3149	39-53-4140	39-52-1145	
16	39-53-3169	39-53-4160	39-52-1165	
20	39-53-3209	39-53-4200	39-52-1205	
26	39-53-3269	39-53-4260	39-52-1265	
30	39-53-3309	39-53-4300	39-52-1305	

Circuits	Order No.			Lead-free
	4µ" (0.1µm) Gold	30µ" (0.76µm) Gold	35µ" (0.9µm) Tin	
34	39-53-3349	39-53-4340	39-52-1345	Yes
40	39-53-3409	39-53-4400	39-52-1405	
50	39-53-3509	39-53-4500	39-52-1505	
60	39-53-3609	39-53-4600		
64	39-53-3649	39-53-4640		

1.27mm (.050") Pitch QF-50™ Receptacle

90635
Vertical, MIL/DIN Version



Features and Benefits
- Sizes 10 to 64 circuits
- Available with or without polarization
- Complies with industry-standard DIN 41651 and MIL-3-83503 keying
- Selective Gold plating option for contacts
- Available in various packaging styles

Reference Information
Product Specification: PS-99020-0015
Packaging: Tray (contact Molex for chain)
Tooling Information: See end of section
Mates With: 90663
Use With: 90170 strain relief
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Mating Force: 350g (0.77 lb) max. per circuit
Unmating Force: 50g (0.11 lb) min. per circuit
Durability: 300 cycles max.

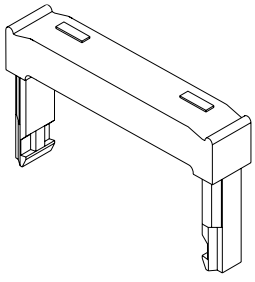
Physical
Housing: Glass-filled polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table
Cable Accommodation: 26 AWG stranded and 28 AWG stranded and solid

Circuits	Order No.						Lead-free
	With Polarization			Without Polarization			
	Plating 1	Plating 2	Plating 3	Plating 1	Plating 2	Plating 3	
10	90635-1101	90635-1102	90635-1103	90635-3101	90635-3102	90635-3103	Yes
14	90635-1141	90635-1142	90635-1143	90635-3141	90635-3142	90635-3143	
16	90635-1161	90635-1162	90635-1163	90635-3161	90635-3162	90635-3163	
20	90635-1201	90635-1202	90635-1203	90635-3201	90635-3202	90635-3203	
24	90635-1241	90635-1242	90635-1243	90635-3241	90635-3242	90635-3243	
26	90635-1261	90635-1262	90635-1263	90635-3261	90635-3262	90635-3263	
30	90635-1301	90635-1302	90635-1303	90635-3301	90635-3302	90635-3303	
34	90635-1341	90635-1342	90635-1343	90635-3341	90635-3342	90635-3343	
40	90635-1401	90635-1402	90635-1403	90635-3401	90635-3402	90635-3403	
50	90635-1501	90635-1502	90635-1503	90635-3501	90635-3502	90635-3503	
60	90635-1601	90635-1602	90635-1603	90635-3601	90635-3602	90635-3603	
64	90635-1641	90635-1642	90635-1643	90635-3641	90635-3642	90635-3643	

Plating 1: Contact area: 4µ" Gold flash min. IDT area: 39µ" min. Tin over Nickel.
Plating 2: Contact area: 30µ" Gold min. IDT area: 39µ" min. Tin over Nickel.
Plating 3: Contact area: 15µ" Gold min. IDT area: 39µ" Tin over Nickel.

QF-50™ Strain Relief

90170
DIN 41651, Standard Low Profile



Features and Benefits
- Complies with industry-standard DIN 41651

Reference Information
Product Specification: PS-99020-0015
Packaging: Bag
Use With: 5320 and 90635
Designed In: Inches

Physical
Housing: Black glass-filled polyester, UL 94V-0

Preferred Version in Europe

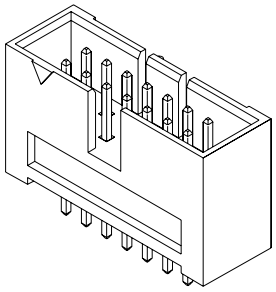
Circuits*	Order No.
10	90170-0010
14	90170-0014
16	90170-0016
20	90170-0020
26	90170-0026
30	90170-0030

Circuits*	Order No.
34	90170-0034
40	90170-0040
50	90170-0050
60	90170-0060
64	90170-0064

* Number of circuits on mating connector

2.54mm (.100") Pitch QF-50™ Shrouded Header

5332
Vertical, Dual Row Single Polarization



Features and Benefits
- Sizes 10 to 60 circuits
- Selective Gold- and Tin-plated versions

Reference Information
Packaging: Tray
UL File No.: E29179-E
Mates With: 5320-NA and 5320-NB
Designed In: Millimeters

Electrical
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

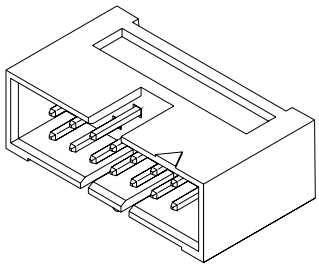
Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Brass
Contact Pin: 0.635mm (.025") square
Plating: See Table

Circuits	Order No.			Lead-free
	4µ" (0.1µm) Gold	30µ" (0.76µm) Gold	35µ" (0.9µm) Tin	
10	39-53-6104	39-53-6105	39-28-5101	Yes
14	39-53-6144	39-53-6145	39-28-5141	
16	39-53-6164	39-53-6165	39-28-5161	
20	39-53-6204	39-53-6205	39-28-5201	
26	39-53-6264	39-53-6265	39-28-5261	

Circuits	Order No.			Lead-free
	4µ" (0.1µm) Gold	30µ" (0.76µm) Gold	35µ" (0.9µm) Tin	
30	39-53-6304	39-53-6305	39-28-5301	Yes
34	39-53-6344	39-53-6345	39-28-5341	
40	39-35-6404	39-35-6405		
50	39-53-6504	39-53-6505		
60	39-53-6604	39-53-6605		

2.54mm (.100") Pitch QF-50™ Shrouded Header

5342
Right Angle, Dual Row Single Polarization



Features and Benefits
- Sizes 10 to 60 circuits
- Selective Gold- and Tin-plated versions

Reference Information
Packaging: Tray
UL File No.: E29179-E
Mates With: 5320-NA and 5320-NB
Designed In: Millimeters

Electrical
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

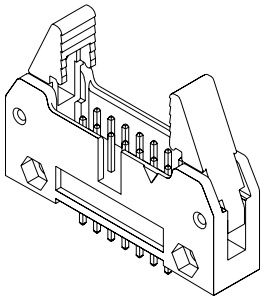
Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Brass
Contact Pin: 0.635mm (.025") square
Plating: See Table

Circuits	Order No.			Lead-free
	4µ" (0.1µm) Gold	30µ" (0.76µm) Gold	35µ" (0.9µm) Tin	
10	39-53-7104	39-53-7105	39-28-5104	Yes
14	39-53-7144	39-53-7145	39-28-5144	
16	39-53-7164	39-53-7165	39-28-5164	
20	39-53-7204	39-53-7205	39-28-5204	
26	39-53-7264	39-53-7265	39-28-5264	

Circuits	Order No.			Lead-free
	4µ" (0.1µm) Gold	30µ" (0.76µm) Gold	35µ" (0.9µm) Tin	
30	39-53-7304	39-53-7305	39-28-5304	Yes
34	39-53-7344	39-53-7345	39-28-5344	
40	39-53-7404	39-53-7405		
50	39-53-7504	39-53-7505		
60	39-53-7604	39-53-7605		

2.54mm (.100") Pitch QF-50™ Shrouded Header

5330
Vertical, Dual Row With Eject Levers



Features and Benefits
- Sizes 10 to 64 circuits
- Polarized
- Stackable side-by-side
- Latches connector with or without strain relief
- Selective Gold- and overall Tin-plated versions
- Lever spring pins—Stainless Steel

Reference Information
Packaging: Tray
UL File No.: E29179-E
CSA File No.: LR19980
Mates With: 5320-NA and 5320-NB
Designed In: Millimeters

Electrical
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

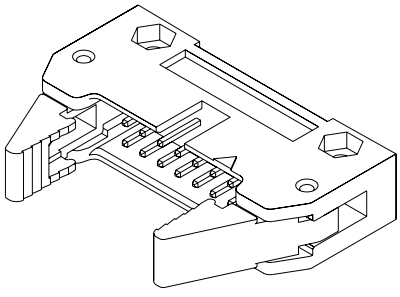
Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Brass
Contact Pins: 0.635mm (.025") square
Plating: See Table

Circuits	Order No.			Lead-free
	4µ" (0.1µm) Gold	30µ" (0.76µm) Gold	35µ" (0.9µm) Tin	
10	39-35-2106	39-53-5109	39-28-5100	Yes
14	39-35-2146	39-53-5149	39-28-5140	
16	39-35-2166	39-53-5169	39-28-5160	
20	39-35-2206	39-53-5209	39-28-5200	
26	39-35-2266	39-53-5269	39-28-5260	
30	39-35-2306	39-53-5309	39-28-5300	

Circuits	Order No.			Lead-free
	4µ" (0.1µm) Gold	30µ" (0.76µm) Gold	35µ" (0.9µm) Tin	
34	39-35-2346	39-53-5349	39-28-5340	Yes
40	39-35-2406	39-53-5409	39-28-5400	
50	39-35-2506	39-53-5509	39-28-5500	
60	39-35-2606	39-53-5609		
64	39-35-2646	39-53-5649		

2.54mm (.100") Pitch QF-50™ Shrouded Header

5340
Right Angle, Dual Row With Eject Levers



Features and Benefits
- Sizes 10 to 64 circuits
- Polarized
- Stackable side-by-side
- Selective Gold- and overall Tin-plated versions
- Lever spring pins—Stainless Steel

Reference
Packaging: Tray
UL File No.: E29179-E
Mates With: 5320-NA and 5320-NB
Designed In: Millimeters

Electrical
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

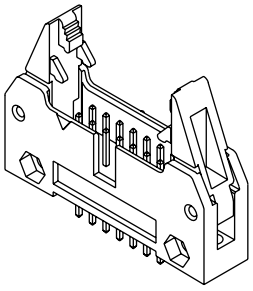
Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Brass
Contact Pin: 0.635mm (.025") square
Plating: See Table

Circuits	Order No.			Lead-free
	4µ" (0.1µm) Gold	30µ" (0.76µm) Gold	35µ" (0.9µm) Tin	
10	39-53-3107	39-53-7108	39-28-5103	Yes
14	39-53-3147	39-53-7148	39-28-5143	
16	39-53-3167	39-53-7168	39-28-5163	
20	39-53-3207	39-53-7208	39-28-5203	
26	39-53-3267	39-53-7268	39-28-5263	
30	39-53-3307	39-53-7308	39-28-5303	

Circuits	Order No.			Lead-free
	4µ" (0.1µm) Gold	30µ" (0.76µm) Gold	35µ" (0.9µm) Tin	
34	39-53-3347	39-53-7348	39-28-5343	Yes
40	39-53-3407	39-53-7408	39-28-5403	
50	39-53-3507	39-53-7508	39-28-5503	
60	39-53-3607	39-53-7608		
64	39-53-3647	39-53-7648		

2.54mm (.100") Pitch QF-50™ Shrouded Header

5576
Vertical
With Eject Levers



Features and Benefits
- 10 to 64 circuits
- Tin plated on solder tail
- Complies with industry standard DIN 41654
- Polarized
- Selective Gold plating options for contacts
- Eject levers allow end-to-end stacking with or without strain relief with no loss of board space

Reference Information
Packaging: Tray
Designed In: Millimeters
Mates With: 5320

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Glass-filled PBTP
Contact: Brass

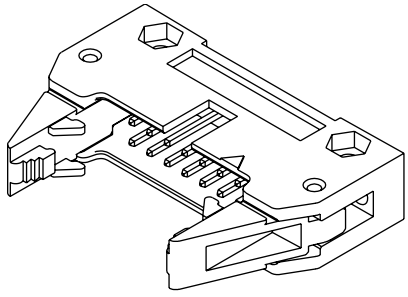
Circuits	Order No.			Lead-free
	Plating NBGS1	Plating NBGS2	Plating NBT2	
10	39-27-1103	39-27-1104	39-28-5105	Yes
14	39-27-1143	39-27-1144	39-28-5145	
16	39-27-1163	39-27-1164	39-28-5165	
20	39-27-1203	39-27-1204	39-28-5205	
26	39-27-1263	39-27-1264	39-28-5265	
30	39-27-1303	39-27-1304	39-28-5305	

Circuits	Order No.			Lead-free
	Plating NBGS1	Plating NBGS2	Plating NBT2	
34	39-27-1343	39-27-1344	39-28-5345	Yes
40	39-27-1403	39-27-1404	39-28-5405	
50	39-27-1503	39-27-1504	39-28-5505	
60	39-27-1603	39-27-1604		
64	39-27-1643	39-27-1644		

Plating NBGS1: 39µ" (1µm) min. Nickel underplate. Contact area: 0.1µm min. Gold.
Solder area: 3µm min. Tin
Plating NBGS2: 39µ" (1µm) min. Nickel underplate. Contact area: 0.76µm min. Gold.
Solder area: 3µm min. Tin
Plating NBT2: 20µ" (0.5µm) min. Nickel underplate. Contact and solder area: 39µ" (1µm) min. Tin

2.54mm (.100") Pitch QF-50™ Shrouded Header

5578
Right Angle
With Eject Levers



Features and Benefits
- 10 to 64 circuits
- Tin plated on solder tail
- Complies with industry standard DIN 41654
- Polarized
- Selective Gold plating options for contacts
- Eject levers allow end-to-end stacking with or without strain relief with no loss of board space

Reference Information
Packaging: Tray
Mates With: 5320
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Glass-filled PBTP
Contact: Brass

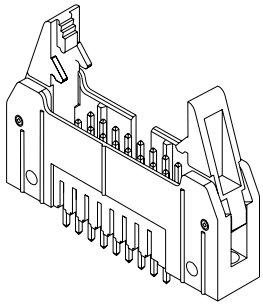
Circuits	Order No.			Lead-free
	Plating NBGS17F	Plating NBGS2	Plating NBT2	
10	39-53-6108	39-53-6109	39-28-5106	Yes
14	39-53-6148	39-53-6149	39-28-5146	
16	39-53-6168	39-53-6169	39-28-5166	
20	39-53-6208	39-53-6209	39-28-5206	
26	39-53-6268	39-53-6269	39-28-5266	
30	39-53-6308	39-53-6309	39-28-5306	

Circuits	Order No.			Lead-free
	Plating NBGS17F	Plating NBGS2	Plating NBT2	
34	39-53-6348	39-53-6349	39-28-5346	Yes
40	39-53-6408	39-53-6409	39-28-5406	
50	39-53-6508	39-53-6509	39-28-5506	
60	39-53-6608	39-53-6609		
64	39-53-6648	39-53-6649		

Plating NBGS1: 39µ" (1µm) min. Nickel underplate. Contact area: 0.1µm min. Gold.
Solder area: 3µm min. Tin.
Plating NBGS2: 39µ" (1µm) min. Nickel underplate. Contact area: 0.76µm min. Gold.
Solder area: 3µm min. Tin.
Plating NBT2: 20µ" (0.5µm) min. Nickel underplate. Contact and solder area: 39µ" (1µm) min. Tin.

2.54mm (.100") Pitch QF-50™ Shrouded Header

90663
Vertical, MIL Keying With Latch/Eject Levers



Features and Benefits
- Sizes 10 to 64 circuits
- Tin plated on solder tail
- Complies with industry-standard DIN 41651 and MIL-3-83503 keying
- Selective Gold plating options for contacts
- Eject levers allow end-to-end stacking with or without strain relief with no loss of board space
- Polarized
- Contact Molex for variations on eject levers

Reference Information
Product Specification: PS-99020-0015
Packaging: Tray
Mates With: 90635
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 2.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Pin Retention Force: 1.5kg (3.3 lb)
Mating Force: 350g (0.77 lb) max. per circuit
Unmating Force: 50g (0.11 lb) min. per circuit
Durability: 300 cycles max.

Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table

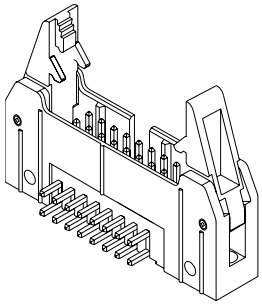
Circuits	Order No.			Lead-free
	Plating 1	Plating 2	Plating 3	
10	90663-1101	90663-1102	90663-1103	Yes
14	90663-1141	90663-1142	90663-1143	
16	90663-1161	90663-1162	90663-1163	
20	90663-1201	90663-1202	90663-1203	
26	90663-1261	90663-1262	90663-1263	
30	90663-1301	90663-1302	90663-1303	

Circuits	Order No.			Lead-free
	Plating 1	Plating 2	Plating 3	
34	90663-1341	90663-1342	90663-1343	Yes
40	90663-1401	90663-1402	90663-1403	
50	90663-1501	90663-1502	90663-1503	
60	90663-1601	90663-1602	90663-1603	
64	90663-1641	90663-1642	90663-1643	

Note: Also available with 91081 ejectors. Please contact Molex.
Plating 1: 4µ" Gold in contact area, 118µ" Tin in solder area, 39µ" Nickel underplate
Plating 2: 30µ" Gold in contact area, 118µ" Tin in solder area, 39µ" Nickel underplate
Plating 3: 10µ" Gold in contact area, 118µ" Tin in solder area, 39µ" Nickel underplate

2.54mm (.100") Pitch QF-50™ Shrouded Header

90663
Right Angle, MIL Keying With Latch/Eject Levers



Features and Benefits
- Sizes 10 to 64 circuits
- Tin plated on solder tail
- Complies with industry-standard DIN 41651 and MIL-3 83503 keying
- Selective Gold plating options for contacts
- Eject levers allow end-to-end stacking with or without strain relief with no loss of board space
- Polarized
- Contact Molex for variations on eject levers

Reference Information
Product Specification: PS-99020-0015
Packaging: Tray
Mates With: 90635
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 2.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Pin Retention Force: 1.5kg (3.3 lb)
Mating Force: 350g (0.77 lb) max. per circuit
Unmating Force: 50g (0.11 lb) min. per circuit
Durability: 300 cycles max.

Physical
Housing: Black glass-filled polyester, UL 94V-0
Contact: Copper Alloy
Plating: See Table

Circuits	Order No.			Lead-free
	Plating 1	Plating 2	Plating 3	
10	90663-3101	90663-3102	90663-3103	Yes
14	90663-3141	90663-3142	90663-3143	
16	90663-3161	90663-3162	90663-3163	
20	90663-3201	90663-3202	90663-3203	
26	90663-3261	90663-3262	90663-3263	
30	90663-3301	90663-3302	90663-3303	

Circuits	Order No.			Lead-free
	Plating 1	Plating 2	Plating 3	
34	90663-3341	90663-3342	90663-3343	Yes
40	90663-3401	90663-3402	90663-3403	
50	90663-3501	90663-3502	90663-3503	
60	90663-3601	90663-3602	90663-3603	
64	90663-3641	90663-3642	90663-3643	

Plating 1: 4µ" Gold in contact area, 118µ" Tin in solder area, 39µ" Nickel underplate
Plating 2: 30µ" Gold in contact area, 118µ" Tin in solder area, 39µ" Nickel underplate
Plating 3: 10µ" Gold in contact area, 118µ" Tin in solder area, 39µ" Nickel underplate

2.54mm (.100") Pitch SL™ Ribbon Cable Connectors

70400/70475
Single Row Cable Connector System

Please refer to section A of this catalog for more detailed information

Features and Benefits
- Sizes 2 to 25 circuits
- Modular connectors for use with SL single row shrouded headers and clips
- Terminals preloaded into housings
- Polarization and positive locking options

Reference Information
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Use Molex Cable: 7307, 7767, 8996, 8997, 24226, 24241, 24369 and 24389
Designed In: Inches

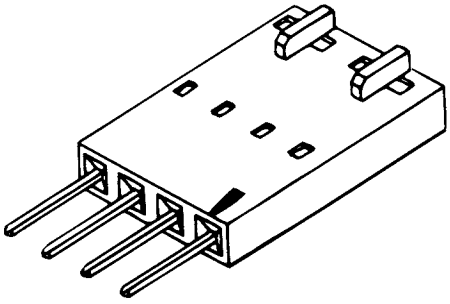
Electrical
Voltage: 250V
Current: 3.0A max
Contact Resistance: 15 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Contact Insertion Force: 3.11N (0.7 lb) max.
Contact Retention to Housing: 17.79N (4 lb) min. for 15 seconds
Durability: Tin—25 cycles; Gold—50 cycles

Physical
Housing: Polyester, UL 94V-0
Contact: Copper alloy

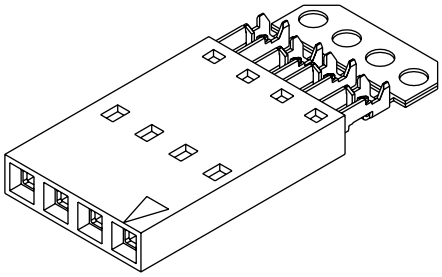
Version D — Male

70475



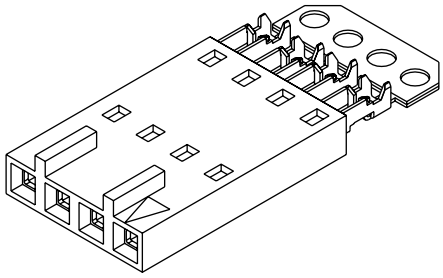
Version A — Female

70400



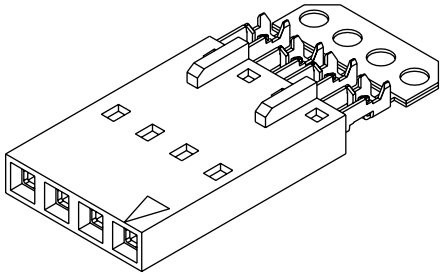
Version C — Female

70400



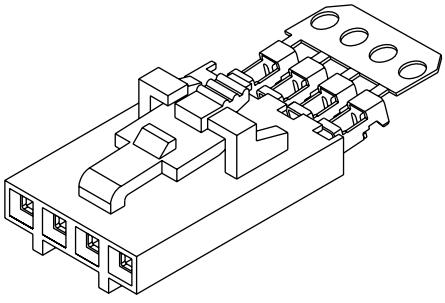
Version D — Female

70400



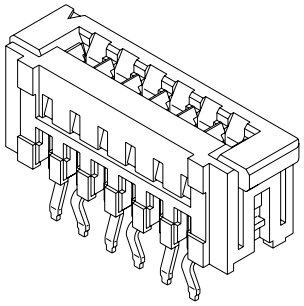
Version G — Female

70400



2.00mm (.079") Pitch Wire Trap

52147
Pull-Cover Style Vertical



Features and Benefits
- Sizes 2 to 17 circuits
- For topcoated ribbon cable
- Wire range: 26 AWG
- Insulation diameter: 1.60mm max.
- Strip length: 4.50mm

Reference Information
Product Specification: PS-52147-001
Packaging: Tray
UL File No.: E29179
Designed In: Millimeters

Electrical
Voltage: 150V max.
Current: 2.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Glass-filled PBT, UL 94V-0
Actuator: Glass-filled PBT, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin

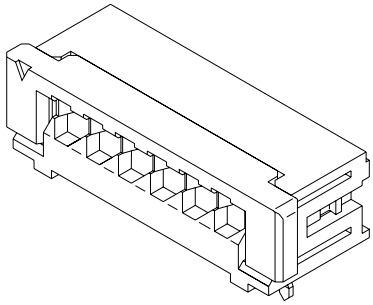
Circuits	Order No.	Lead-free
2	52147-0210	Yes
3	52147-0310	
4	52147-0410	
5	52147-0510	
6	52147-0610	
7	52147-0710	
8	52147-0810	
9	52147-0910	

Circuits	Order No.	Lead-free
10	52147-1010	Yes
11	52147-1110	
12	52147-1210	
13	52147-1310	
14	52147-1410	
15	52147-1510	
16	52147-1610	
17	52147-1710	

Note: All PC tails kinked opposite ways except two-circuit version, which has no kinks

2.00mm (.079") Pitch Wire Trap

52151
Pull-Cover Style Right Angle



Features and Benefits
- Sizes 2 to 16 circuits
- For topcoated ribbon cable
- Wire range: 26 AWG
- Insulation diameter: 1.60mm max.
- Strip length: 4.50mm

Reference Information
Product Specification: PS-52147-001
Packaging: Tray
UL File No.: E29179
Designed In: Millimeters

Electrical
Voltage: 150V max.
Current: 2.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Glass-filled PBT, UL 94V-0
Actuator: Glass-filled PBT, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin

Circuits	Order No.	Lead-free
2	52151-0210	Yes
3	52151-0310	
4	52151-0410	
5	52151-0510	
6	52151-0610	
7	52151-0710	
8	52151-0810	
9	52151-0910	

Circuits	Order No.	Lead-free
10	52151-1010	Yes
11	52151-1110	
12	52151-1210	
13	52151-1310	
14	52151-1410	
15	52151-1510	
16	52151-1610	

Note: All PC tails kinked opposite ways except two-circuit version, which has no kinks

Backplane Roadmap H-2

Impact™

2-Pair Assemblies ..... H-4 to H-5
3-Pair Assemblies ..... H-5 to H-6
4-Pair Assemblies ..... H-7 to H-8
5-Pair Assemblies ..... H-8 to H-10
6-Pair Assemblies H-11

GbX® I-trac™

7-Row ..... H-13 to H-14
11-Row ..... H-14 to H-15
15-Row H-16

GbX®

Custom Daughtercard Receptacles ..... H-17 to H-18
Backplane Headers ..... H-19 to H-22
Backplane Power Header H-25
Cable Assembly H-25

GbX L-Series

Backplane Headers ..... H-24 to H-25

VHDM-HSD™

Backplane Headers ..... H-26 to H-29

VHDM®

6-Row
- Backplane Headers ..... H-31 to H-32
- Custom Connector H-32
- Backplane Power Module H-33

8-Row
- Backplane Headers ..... H-33 to H-34
- Custom Connector H-35
- Stacking Connector H-35
- Backplane Power Module H-36

VHDM® Lite

6-Row
- Backplane Headers ..... H-37 to H-38
- Custom Daughtercard Receptacle H-38

8-Row
- Custom Daughtercard Receptacle H-39
- Backplane Headers ..... H-39 to H-40

HDM® and HDM$^{PLUS®}$

Application Information and Design Guide ..... H-41 to H-43
Backplane Headers ..... H-44 to H-45
Backplane Power Module H-46
Midplane Power Module H-46
Daughterboard Receptacle H-47
Stacking Header H-47

Ganged RF Daughtercard and Header H-48

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

Note: GbX®, VHDM-HSD™, VHDM®, HDM® and HDM$^{PLUS®}$ are trademarks or registered trademarks of Amphenol Corporation

Molex offers a variety of backplane/midplane solutions to meet the demand for increased network bandwidth and advanced technology. Each solution is designed for high performance, increased density and compatibility with industry-standard interfaces. Molex provides a user-friendly transition between the PCB-mounted connector and the backplane/midplane. The Molex Research and Development Team has extensive knowledge and expertise on high-speed interface design. Your specific needs can be customized and transformed into new manufacturable designs.

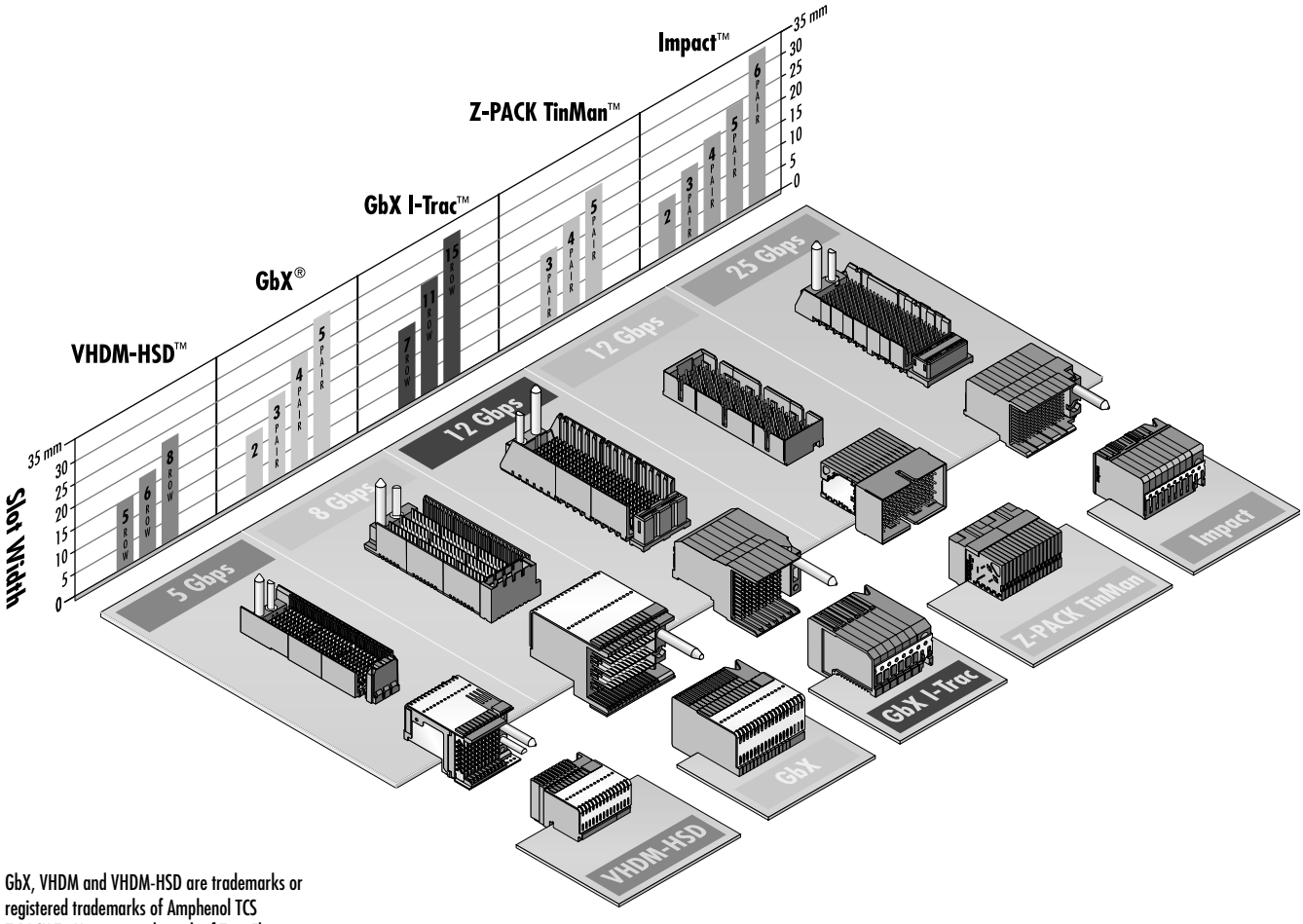
Capabilities

- High-density connector and high-speed design capabilities
- Electrical and mechanical design capabilities
- Press-Fit, SMT and through hole available for product manufacturing
- Expertise on process manufacturing
- DFM support
- Rigid and flexible backplane design
- Reference designs available on major connector configurations such as VHDM®, GbX® and GbX I-Trac™
- Specific storage backplanes reference designs (SAS/SATA)
- Cost-effective interconnect solutions

Backplane Products Configurator on molex.com

The Backplane Products Configurator is an online tool available to registered users to create custom daughtercard proposal drawings and bills of materials (BOMs) by selecting from a list of available components. This tool is available on the following Backplane Products: VHDM®, VHDM-HSD™, VHDM RAM and GbX®.

To use the backplane configurator, click on the appropriate product link in the configurator selection matrix on molex.com where you can also view a demonstration of how the configurator works.



GbX, VHDM and VHDM-HSD are trademarks or registered trademarks of Amphenol TCS
Z-PACK TinMan is a trademark of Tyco Electronics

1.90 by 1.35mm (.075 by .053") Pitch Impact™ Backplane Connector System

The Impact Backplane Connector System from Molex pushes the speed and density envelope to meet the growing demands of next-generation telecommunication and data networking equipment. The system is available in 2- to 6-pair configurations with a complete range of guidance and power-solution options

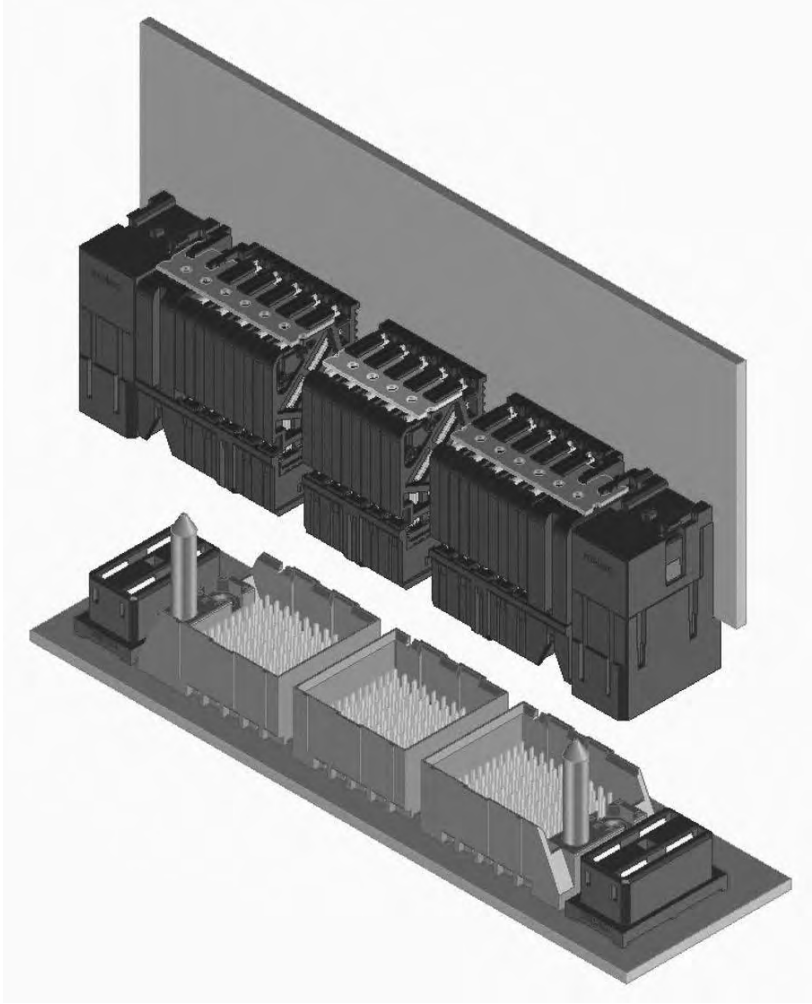
The Impact backplane connector system provides data rates up to 25 Gbps and superior signal density up to 80 differential pairs per inch. The Impact system's broad-edge-coupled transmission technology enables low cross-talk and high signal bandwidth while minimizing channel-performance variation across every differential pair within the system.

Molex's Impact connector system is available in two compliant-pin design options on both daughtercard and backplane connectors, providing customers ultimate flexibility to optimize their designs for superior mechanical and electrical performance. The Impact system's mating interface provides in-line staggered, bifurcated contacts that provide 2 points of contact for long-term reliability performance and built-in, ground-signal sequencing. This reduces the average mating force per connector to improve the mechanical mating performance of the system.

The Impact connector system is designed for traditional backplane and/or midplane architectures to meet the growing demand for next-generation telecommunication and data networking equipment manufacturers. The Impact system is available in 2-, 3-, 4-, 5- and 6-pair versions with a complete range of guidance and power-solution options. Other options available include: 2-, 3- and 4-pair coplanar, 5-pair mezzanine and 4- and 6-pair cable assemblies. For more information on Molex's Impact backplane connector system, contact impact@molex.com.

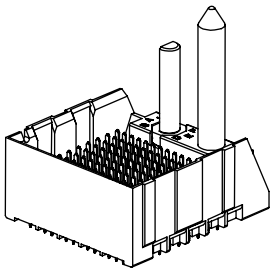
Features and Benefits

- Impact's broad edge-coupled, hybrid shielding design provides superior density, low cross-talk, low insertion loss and minimal performance variation across all high-speed channels
- At over 20 Gbps data rates, Impact provides significant channel performance headroom for future system upgradeability
- Impact is IEEE 10GBASE-KR and OIF State Eye Channel Compliant
- Molex's Impact product provides up to 80 differential pairs per linear inch, making it the fastest, densest backplane connector on the market today
- Impact provides 2 compliant-pin design options that allows customers to balance their electrical and mechanical application needs
- The Impact daughtercard mating interface utilizes an inline staggered, bifurcated contact system that reduces the mating force per pin and provides ground-signal sequencing without the need for multiple backplane signal pin heights
- Impact's simple PCB layout provides adequate spacing for high-speed routing
- The Impact system properly balances the speed, density, cost and quality requirements of our customers' current and future systems
- The Impact system is a multi-sourced backplane system (available from Molex and Tyco Electronics) which ensures intermateability and interchangeability



1.90 by 1.35mm (.075 by .053") Pitch Impact™ Backplane Header

76455
2-Pair



Features and Benefits
- Broad-edge-coupled, 100 ohm impedance, differential-pair system for superior density, low cross-talk and low insertion loss
- Differential-pair density up to 80 pairs per linear inch
- IEEE 10GBASE-KR and Optical Internetworking Forum (OIF) Stat Eye Compliant
- Two compliant-pin attach options
- Inline staggered, bifurcated contact beams in daughtercard interface for superior mating performance with two points of contact for long-term reliability and built-in ground-signal sequencing
- Data rates scalable up to 25 Gbps support future system performance upgrades

Reference Information*
Packaging: Tray
UL File No.: E28179
Designed In: Millimeters

Electrical
Voltage: 30V AC RMS/DC max.
Current: 0.75A per pin max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Mating Force: 0.30N (.066 lb) max. per pin
Compliant Pin Retention Force to PCB: 3.56N (.80 lb) per compliant pin average min.
Compliant Pin Insertion Force to PCB: 26.7N (6.0 lb max.) per contact
Durability: 200 cycles min.

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") typical

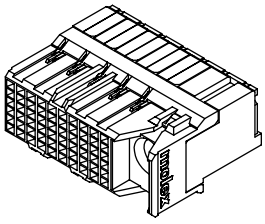
*For complete electrical and mechanical test reports, please contact impact@molex.com

Order No.	A	B	C	D	Lead-free
	Module Type	Module Size	Unguided Wall Options*	Mating Pin Length	
76455-ABCD	1 = Unguided 3 = Guide left, open right 5 = Guide right, open left 7 = Guide left, end wall right 9 = Guide right, end wall left	1 = 10 Column 6 = 16 Column	0 = Open ends 1 = Left end wall 2 = Dual end wall 3 = Right end wall	3 = 4.50mm (PTH = 0.46) 4 = 4.90mm (PTH = 0.46) 5 = 5.50mm (PTH = 0.46) 6 = 4.50mm (PTH = 0.39) 7 = 4.90mm (PTH = 0.39) 8 = 5.50mm (PTH = 0.39)	Yes

* Unguided wall options available on #0-#3 unguided module type.
Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
Custom header pin layouts using standard pin lengths fall under separate series numbers. Contact Molex for details.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.90 by 1.35mm (.075 by .053") Pitch Impact™ Daughtercard Receptacle

76460
2-Pair



Features and Benefits
- Broad-edge-coupled, 100 ohm impedance, differential-pair system for superior density, low cross-talk and low insertion loss
- Differential-pair density up to 80 pairs per linear inch
- IEEE 10GBASE-KR and Optical Internetworking Forum (OIF) Stat Eye Compliant
- Two compliant-pin attach options
- Inline staggered, bifurcated contact beams in daughtercard interface for superior mating performance with two points of contact for long-term reliability and built-in ground-signal sequencing
- Data rates scalable up to 25 Gbps support future system performance upgrades

Reference Information*
Packaging: Tray
UL File No.: E28179
Designed In: Millimeters

Electrical
Voltage: 30V AC RMS/DC max.
Current: 0.75A per pin max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Mating Force: 0.30N (.066 lb) max. per pin
Compliant Pin Retention Force to PCB: 3.56N (.80 lb) per compliant pin average min.
Compliant Pin Insertion Force to PCB: 26.7N (6.0 lb max.) per contact
Durability: 200 cycles min.

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") typical

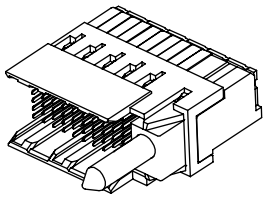
*For complete electrical and mechanical test reports, please contact impact@molex.com

Order No.	A	B	CD	Lead-free
	Module Type	Guided Key Position	Module Size	
76460-ABCD	1 = Unguided 3 = Guide left 5 = Guide right	0 = No Keying	10 = 10 Column (PTH = 0.46) 16 = 16 Column (PTH = 0.46) 20 = 10 Column (PTH = 0.39) 26 = 16 Column (PTH = 0.39)	Yes

Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.90 by 1.35mm (.075 by .053") Pitch Impact™ Coplanar Header (RAM)

76450
2-Pair



Features and Benefits
- Broad-edge-coupled, 100 ohm impedance, differential-pair system for superior density, low cross-talk and low insertion loss
- Differential-pair density up to 80 pairs per linear inch
- IEEE 10GBASE-KR and Optical Internetworking Forum (OIF) Stat Eye Compliant
- Two compliant-pin attach options
- Inline staggered, bifurcated contact beams in daughtercard interface for superior mating performance with two points of contact for long-term reliability and built-in ground-signal sequencing
- Data rates scalable up to 25 Gbps support future system performance upgrades

Reference Information*
Packaging: Tray
UL File No.: E28179
Designed In: Millimeters

Electrical
Voltage: 30V AC RMS/DC max.
Current: 0.75A per pin max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Mating Force: 0.30N (.066 lb) max. per pin
Compliant Pin Retention Force to PCB: 3.56N (.80 lb) per compliant pin average min.
Compliant Pin Insertion Force to PCB: 26.7N (6.0 lb max.) per contact
Durability: 200 cycles min.

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") typical

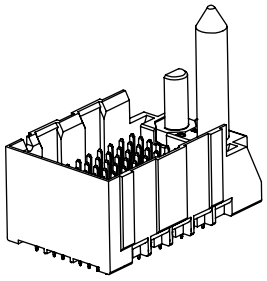
*For complete electrical and mechanical test reports, please contact impact@molex.com

Order No.	A	B	C	D	Lead-free
	Module Type	Module Size	Unguided Wall Options*	Mating Pin Length	
76450-ABCD	1 = Unguided 3 = Guide left 5 = Guide right 7 = Guide left, end wall right 9 = Guide right, end wall left	1 = 10 Column 6 = 16 Column	0 = Open ends 1 = Left end wall 2 = Dual end wall 3 = Right end wall	4 = 4.90mm (PTH = 0.46) 5 = 5.50mm (PTH = 0.46) 7 = 4.90mm (PTH = 0.39) 8 = 5.50mm (PTH = 0.39)	Yes

* Unguided wall options available on #0-#3 unguided module type.
Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
A guide left Coplanar mates to a guide right Daughtercard and vice versa. They are opposite.
For Tin/Lead and Keying options, please visit www.molex.com.

1.90 by 1.35mm (.075 by .053") Pitch Impact™ Backplane Header

76165
3-Pair



Features and Benefits
- Broad-edge-coupled, 100 ohm impedance, differential-pair system for superior density, low cross-talk and low insertion loss
- Differential-pair density up to 80 pairs per linear inch
- IEEE 10GBASE-KR and Optical Internetworking Forum (OIF) Stat Eye Compliant
- Two compliant-pin attach options
- Inline staggered, bifurcated contact beams in daughtercard interface for superior mating performance with two points of contact for long-term reliability and built-in ground-signal sequencing
- Data rates scalable up to 25 Gbps support future system performance upgrades

Reference Information*
Packaging: Tray
UL File No.: E28179
Designed In: Millimeters

Electrical
Voltage: 30V AC RMS/DC max.
Current: 0.75A per pin max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Mating Force: 0.30N (.066 lb) max. per pin
Compliant Pin Retention Force to PCB: 3.56N (.80 lb) per compliant pin average min.
Compliant Pin Insertion Force to PCB: 26.7N (6.0 lb max.) per contact
Durability: 200 cycles min.

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") typical

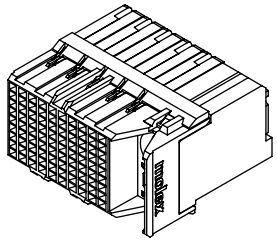
*For complete electrical and mechanical test reports, please contact impact@molex.com

Order No.	A	B	C	D	Lead-free
	Module Type	Module Size	Unguided Wall Options*	Mating Pin Length	
76165-ABCD	1 = Unguided 3 = Guide left, open right 5 = Guide right, open left 7 = Guide left, end wall right 9 = Guide right, end wall left	8 = 8 Column 1 = 10 Column 6 = 16 Column	0 = Open ends 1 = Left end wall 2 = Dual end wall 3 = Right end wall	3 = 4.50mm (PTH = 0.46) 4 = 4.90mm (PTH = 0.46) 5 = 5.50mm (PTH = 0.46) 6 = 4.50mm (PTH = 0.39) 7 = 4.90mm (PTH = 0.39) 8 = 5.50mm (PTH = 0.39)	Yes

* Unguided wall options available on #0-#3 unguided module type.
Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
Custom header pin layouts using standard pin lengths fall under separate series numbers. Contact Molex for details.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.90 by 1.35mm (.075 by .053") Pitch Impact™ Daughtercard Receptacle

76170
3-Pair



Features and Benefits
- Broad-edge-coupled, 100 ohm impedance, differential-pair system for superior density, low cross-talk and low insertion loss
- Differential-pair density up to 80 pairs per linear inch
- IEEE 10GBASE-KR and Optical Internetworking Forum (OIF) Stat Eye Compliant
- Two compliant-pin attach options
- Inline staggered, bifurcated contact beams in daughtercard interface for superior mating performance with two points of contact for long-term reliability and built-in ground-signal sequencing
- Data rates scalable up to 25 Gbps support future system performance upgrades

Reference Information*
Packaging: Tray
UL File No.: E28179
Designed In: Millimeters

Electrical
Voltage: 30V AC RMS/DC max.
Current: 0.75A per pin max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Mating Force: 0.30N (.066 lb) max. per pin
Compliant Pin Retention Force to PCB: 3.56N (.80 lb) per compliant pin average min.
Compliant Pin Insertion Force to PCB: 26.7N (6.0 lb max.) per contact
Durability: 200 cycles min.

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") typical

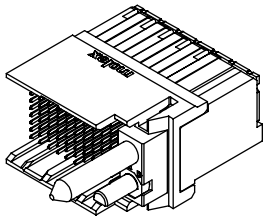
*For complete electrical and mechanical test reports, please contact impact@molex.com

Order No.	A	B	CD	Lead-free
	Module Type	Guided Key Position	Module Size	
76170-ABCD	1 = Unguided 3 = Guide left 5 = Guide right	0 = No Keying	08 = 8 Column (PTH = 0.46) 10 = 10 Column (PTH = 0.46) 16 = 16 Column (PTH = 0.46) 20 = 10 Column (PTH = 0.39) 26 = 16 Column (PTH = 0.39) 38 = 8 Column (PTH = 0.39)	Yes

Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.90 by 1.35mm (.075 by .053") Pitch Impact™ Coplanar Header (RAM)

76410
3-Pair



Features and Benefits
- Broad-edge-coupled, 100 ohm impedance, differential-pair system for superior density, low cross-talk and low insertion loss
- Differential-pair density up to 80 pairs per linear inch
- IEEE 10GBASE-KR and Optical Internetworking Forum (OIF) Stat Eye Compliant
- Two compliant-pin attach options
- Inline staggered, bifurcated contact beams in daughtercard interface for superior mating performance with two points of contact for long-term reliability and built-in ground-signal sequencing
- Data rates scalable up to 25 Gbps support future system performance upgrades

Reference Information*
Packaging: Tray
UL File No.: E28179
Designed In: Millimeters

Electrical
Voltage: 30V AC RMS/DC max.
Current: 0.75A per pin max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Mating Force: 0.30N (.066 lb) max. per pin
Compliant Pin Retention Force to PCB: 3.56N (.80 lb) per compliant pin average min.
Compliant Pin Insertion Force to PCB: 26.7N (6.0 lb max.) per contact
Durability: 200 cycles min.

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") typical

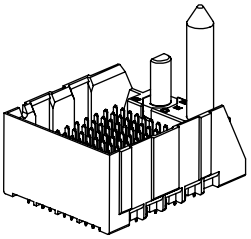
*For complete electrical and mechanical test reports, please contact impact@molex.com

Order No.	A	B	C	D	Lead-free
	Module Type	Module Size	Unguided Wall Options*	Mating Pin Length	
76410-ABCD	1 = Unguided 3 = Guide left 5 = Guide right 7 = Guide left, end wall right 9 = Guide right, end wall left	1 = 10 Column 6 = 16 Column 8 = 8 Column	0 = Open ends 1 = Left end wall 2 = Dual end wall 3 = Right end wall	4 = 4.90mm (PTH = 0.46) 5 = 5.50mm (PTH = 0.46) 7 = 4.90mm (PTH = 0.39) 8 = 5.50mm (PTH = 0.39)	Yes

* Unguided wall options available on #0-#3 unguided module type.
Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
A guide left Coplanar mates to a guide right Daughtercard and vice versa. They are opposite.
For Tin/Lead and Keying options, please visit www.molex.com.

1.90 by 1.35mm (.075 by .053") Pitch Impact™ Backplane Header

76155
4-Pair



Features and Benefits
- Broad-edge-coupled, 100 ohm impedance, differential-pair system for superior density, low cross-talk and low insertion loss
- Differential-pair density up to 80 pairs per linear inch
- IEEE 10GBASE-KR and Optical Internetworking Forum (OIF) Stat Eye Compliant
- Two compliant-pin attach options
- Inline staggered, bifurcated contact beams in daughtercard interface for superior mating performance with two points of contact for long-term reliability and built-in ground-signal sequencing
- Data rates scalable up to 25 Gbps support future system performance upgrades

Reference Information*
Packaging: Tray
UL File No.: E28179
Designed In: Millimeters

Electrical
Voltage: 30V AC RMS/DC max.
Current: 0.75A per pin max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Mating Force: 0.30N (.066 lb) max. per pin
Compliant Pin Retention Force to PCB: 3.56N (.80 lb) per compliant pin average min.
Compliant Pin Insertion Force to PCB: 26.7N (6.0 lb max.) per contact
Durability: 200 cycles min.

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") typical

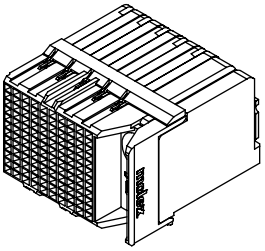
*For complete electrical and mechanical test reports, please contact impact@molex.com

Order No.	A	B	C	D	Lead-free
	Module Type	Module Size	Unguided Wall Options*	Mating Pin Length	
76155-ABCD	1 = Unguided 3 = Guide left, open right 5 = Guide right, open left 7 = Guide left, end wall right 9 = Guide right, end wall left	8 = 8 Column 1 = 10 Column 6 = 16 Column	0 = Open ends 1 = Left end wall 2 = Dual end wall 3 = Right end wall	3 = 4.50mm (PTH = 0.46) 4 = 4.90mm (PTH = 0.46) 5 = 5.50mm (PTH = 0.46) 6 = 4.50mm (PTH = 0.39) 7 = 4.90mm (PTH = 0.39) 8 = 5.50mm (PTH = 0.39)	Yes

* Unguided wall options available on #0-#3 unguided module type.
Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
Custom header pin layouts using standard pin lengths fall under separate series numbers. Contact Molex for details.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.90 by 1.35mm (.075 by .053") Pitch Impact™ Daughtercard Receptacle

76160
4-Pair



Features and Benefits
- Broad-edge-coupled, 100 ohm impedance, differential-pair system for superior density, low cross-talk and low insertion loss
- Differential-pair density up to 80 pairs per linear inch
- IEEE 10GBASE-KR and Optical Internetworking Forum (OIF) Stat Eye Compliant
- Two compliant-pin attach options
- Inline staggered, bifurcated contact beams in daughtercard interface for superior mating performance with two points of contact for long-term reliability and built-in ground-signal sequencing
- Data rates scalable up to 25 Gbps support future system performance upgrades

Reference Information*
Packaging: Tray
UL File No.: E28179
Designed In: Millimeters

Electrical
Voltage: 30V AC RMS/DC max.
Current: 0.75A per pin max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Mating Force: 0.30N (.066 lb) max. per pin
Compliant Pin Retention Force to PCB: 3.56N (.80 lb) per compliant pin average min.
Compliant Pin Insertion Force to PCB: 26.7N (6.0 lb max.) per contact
Durability: 200 cycles min.

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") typical

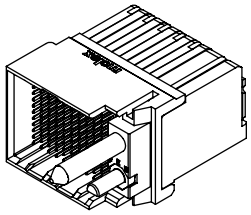
*For complete electrical and mechanical test reports, please contact impact@molex.com

Order No.	A	B	CD	Lead-free
	Module Type	Guided Key Position	Module Size	
76160-ABCD	1 = Unguided 3 = Guide left 5 = Guide right	0 = No Keying	08 = 8 Column (PTH = 0.46) 10 = 10 Column (PTH = 0.46) 16 = 16 Column (PTH = 0.46) 20 = 10 Column (PTH = 0.39) 26 = 16 Column (PTH = 0.39) 38 = 8 Column (PTH = 0.39)	Yes

Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.90 by 1.35mm (.075 by .053") Pitch Impact™ Coplanar Header (RAM)

76500
4-Pair



Features and Benefits
- Broad-edge-coupled, 100 ohm impedance, differential-pair system for superior density, low cross-talk and low insertion loss
- Differential-pair density up to 80 pairs per linear inch
- IEEE 10GBASE-KR and Optical Internetworking Forum (OIF) Stat Eye Compliant
- Two compliant-pin attach options
- Inline staggered, bifurcated contact beams in daughtercard interface for superior mating performance with two points of contact for long-term reliability and built-in ground-signal sequencing
- Data rates scalable up to 25 Gbps support future system performance upgrades

Reference Information*
Packaging: Tray
UL File No.: E28179
Designed In: Millimeters

Electrical
Voltage: 30V AC RMS/DC max.
Current: 0.75A per pin max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Mating Force: 0.30N (.066 lb) max. per pin
Compliant Pin Retention Force to PCB: 3.56N (.80 lb) per compliant pin average min.
Compliant Pin Insertion Force to PCB: 26.7N (6.0 lb max.) per contact
Durability: 200 cycles min.

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") typical

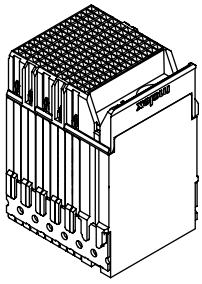
*For complete electrical and mechanical test reports, please contact impact@molex.com

Order No.	A	B	C	D	Lead-free
	Module Type	Module Size	Unguided Wall Options*	Mating Pin Length	
76500-ABCD	1 = Unguided 3 = Guide left 5 = Guide right 7 = Guide left, end wall right 9 = Guide right, end wall left	1 = 10 Column 6 = 16 Column 8 = 8 Column	0 = Open ends 1 = Left end wall 2 = Dual end wall 3 = Right end wall	4 = 4.90mm (PTH = 0.46) 5 = 5.50mm (PTH = 0.46) 7 = 4.90mm (PTH = 0.39) 8 = 5.50mm (PTH = 0.39)	Yes

* Unguided wall options available on #0-#3 unguided module type.
Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
A guide left Coplanar mates to a guide right Daughtercard and vice versa. They are opposite.
For Tin/Lead and Keying options, please visit www.molex.com.

1.90 by 1.35mm (.075 by .053") Pitch Impact™ Mezzanine

76530
5-Pair



Features and Benefits
- Broad-edge-coupled, 100 ohm impedance, differential-pair system for superior density, low cross-talk and low insertion loss
- Differential-pair density up to 80 pairs per linear inch
- IEEE 10GBASE-KR and Optical Internetworking Forum (OIF) Stat Eye Compliant
- Two compliant-pin attach options
- Inline staggered, bifurcated contact beams in daughtercard interface for superior mating performance with two points of contact for long-term reliability and built-in ground-signal sequencing
- Data rates scalable up to 25 Gbps support future system performance upgrades

Reference Information*
Packaging: Tray
UL File No.: E28179
Designed In: Millimeters

Electrical
Voltage: 30V AC RMS/DC max.
Current: 0.75A per pin max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Mating Force: 0.30N (.066 lb) max. per pin
Compliant Pin Retention Force to PCB: 3.56N (.80 lb) per compliant pin average min.
Compliant Pin Insertion Force to PCB: 26.7N (6.0 lb max.) per contact
Durability: 200 cycles min.

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") typical

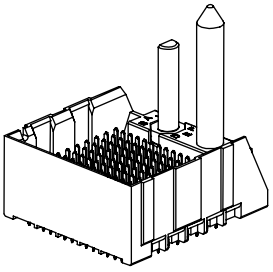
*For complete electrical and mechanical test reports, please contact impact@molex.com

Order No.	A	B	CD	Lead-free
	Module Type	Guided Key Position	Module Size	
76530-ABCD	1 = Unguided 3 = Guide left 5 = Guide right	0 = No Keying	10 = 10 Column (PTH = 0.46) 16 = 16 Column (PTH = 0.46) 20 = 10 Column (PTH = 0.39) 26 = 16 Column (PTH = 0.39)	Yes

Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.90 by 1.35mm (.075 by .053") Pitch Impact™ Backplane Header

76055
5-Pair



Features and Benefits
- Broad-edge-coupled, 100 ohm impedance, differential-pair system for superior density, low cross-talk and low insertion loss
- Differential-pair density up to 80 pairs per linear inch
- IEEE 10GBASE-KR and Optical Internetworking Forum (OIF) Stat Eye Compliant
- Two compliant-pin attach options
- Inline staggered, bifurcated contact beams in daughtercard interface for superior mating performance with two points of contact for long-term reliability and built-in ground-signal sequencing
- Data rates scalable up to 25 Gbps support future system performance upgrades

Reference Information*
Packaging: Tray
UL File No.: E28179
Designed In: Millimeters

Electrical
Voltage: 30V AC RMS/DC max.
Current: 0.75A per pin max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Mating Force: 0.30N (.066 lb) max. per pin
Compliant Pin Retention Force to PCB: 3.56N (.80 lb) per compliant pin average min.
Compliant Pin Insertion Force to PCB: 26.7N (6.0 lb max.) per contact
Durability: 200 cycles min.

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") typical

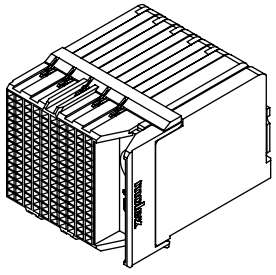
*For complete electrical and mechanical test reports, please contact impact@molex.com

Order No.	A	B	C	D	Lead-free
	Module Type	Module Size	Unguided Wall Options*	Mating Pin Length	
76055-ABCD	1 = Unguided 3 = Guide left, open right 5 = Guide right, open left 7 = Guide left, end wall right 9 = Guide right, end wall left	1 = 10 Column 2 = 12 Column 6 = 16 Column	0 = Open ends 1 = Left end wall 2 = Dual end wall 3 = Right end wall	3 = 4.50mm (PTH = 0.46) 4 = 4.90mm (PTH = 0.46) 5 = 5.50mm (PTH = 0.46) 6 = 4.50mm (PTH = 0.39) 7 = 4.90mm (PTH = 0.39) 8 = 5.50mm (PTH = 0.39)	Yes

* Unguided wall options available on #0-#3 unguided module type.
Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
Custom header pin layouts using standard pin lengths fall under separate series numbers. Contact Molex for details.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.90 by 1.35mm (.075 by .053") Pitch Impact™ Daughtercard Receptacle

76060
5-Pair



Features and Benefits
- Broad-edge-coupled, 100 ohm impedance, differential-pair system for superior density, low cross-talk and low insertion loss
- Differential-pair density up to 80 pairs per linear inch
- IEEE 10GBASE-KR and Optical Internetworking Forum (OIF) Stat Eye Compliant
- Two compliant-pin attach options
- Inline staggered, bifurcated contact beams in daughtercard interface for superior mating performance with two points of contact for long-term reliability and built-in ground-signal sequencing
- Data rates scalable up to 25 Gbps support future system performance upgrades

Reference Information*
Packaging: Tray
UL File No.: E28179
Designed In: Millimeters

Electrical
Voltage: 30V AC RMS/DC max.
Current: 0.75A per pin max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Mating Force: 0.30N (.066 lb) max. per pin
Compliant Pin Retention Force to PCB: 3.56N (.80 lb) per compliant pin average min.
Compliant Pin Insertion Force to PCB: 26.7N (6.0 lb max.) per contact
Durability: 200 cycles min.

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") typical

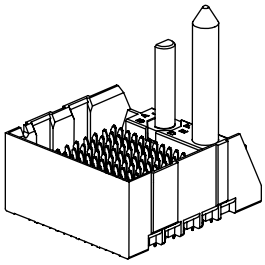
*For complete electrical and mechanical test reports, please contact impact@molex.com

Order No.	A	B	CD	Lead-free
	Module Type	Guided Key Position	Module Size	
76060-ABCD	1 = Unguided 3 = Guide left 5 = Guide right	0 = No Keying	10 = 10 Column (PTH = 0.46) 12 = 12 Column (PTH = 0.46) 16 = 16 Column (PTH = 0.46) 20 = 10 Column (PTH = 0.39) 22 = 12 Column (PTH = 0.39) 26 = 16 Column (PTH = 0.39)	Yes

Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.90 by 1.35mm (.075 by .053") Pitch Impact™ Backplane Header

76775
5-Pair, 85 Ohm



Features and Benefits
- Broad-edge-coupled, 85 ohm impedance, differential-pair system for superior density, low cross-talk and low insertion loss
- Differential-pair density up to 80 pairs per linear inch
- IEEE 10GBASE-KR and Optical Internetworking Forum (OIF) Stat Eye Compliant
- Two compliant-pin attach options
- Inline staggered, bifurcated contact beams in daughtercard interface for superior mating performance with two points of contact for long-term reliability and built-in ground-signal sequencing
- Data rates scalable up to 25 Gbps support future system performance upgrades

Reference Information*
Packaging: Tray
UL File No.: E28179
Designed In: Millimeters

Electrical
Voltage: 30V AC RMS/DC max.
Current: 0.75A per pin max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Mating Force: 0.30N (.066 lb) max. per pin
Compliant Pin Retention Force to PCB: 3.56N (.80 lb) per compliant pin average min.
Compliant Pin Insertion Force to PCB: 26.7N (6.0 lb max.) per contact
Durability: 200 cycles min.

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") typical

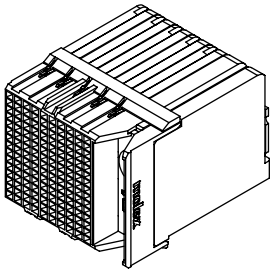
*For complete electrical and mechanical test reports, please contact impact@molex.com

Order No.	A	B	C	D	Lead-free
	Module Type	Module Size	Unguided Wall Options*	Mating Pin Length	
76775-ABCD	1 = Unguided 3 = Guide left, open right 5 = Guide right, open left 7 = Guide left, end wall right 9 = Guide right, end wall left	1 = 10 Column 2 = 12 Column 6 = 16 Column	0 = Open ends 1 = Left end wall 2 = Dual end wall 3 = Right end wall	3 = 4.50mm (PTH = 0.46) 4 = 4.90mm (PTH = 0.46) 5 = 5.50mm (PTH = 0.46) 6 = 4.50mm (PTH = 0.39) 7 = 4.90mm (PTH = 0.39) 8 = 5.50mm (PTH = 0.39)	Yes

* Unguided wall options available on #0-#3 unguided module type.
Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
Custom header pin layouts using standard pin lengths fall under separate series numbers. Contact Molex for details.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.90 by 1.35mm (.075 by .053") Pitch Impact™ Daughtercard Receptacle

76780
5-Pair, 85 Ohm



Features and Benefits
- Broad-edge-coupled, 85 ohm impedance, differential-pair system for superior density, low cross-talk and low insertion loss
- Differential-pair density up to 80 pairs per linear inch
- IEEE 10GBASE-KR and Optical Internetworking Forum (OIF) Stat Eye Compliant
- Two compliant-pin attach options
- Inline staggered, bifurcated contact beams in daughtercard interface for superior mating performance with two points of contact for long-term reliability and built-in ground-signal sequencing
- Data rates scalable up to 25 Gbps support future system performance upgrades

Reference Information*
Packaging: Tray
UL File No.: E28179
Designed In: Millimeters

Electrical
Voltage: 30V AC RMS/DC max.
Current: 0.75A per pin max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Mating Force: 0.30N (.066 lb) max. per pin
Compliant Pin Retention Force to PCB: 3.56N (.80 lb) per compliant pin average min.
Compliant Pin Insertion Force to PCB: 26.7N (6.0 lb max.) per contact
Durability: 200 cycles min.

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") typical

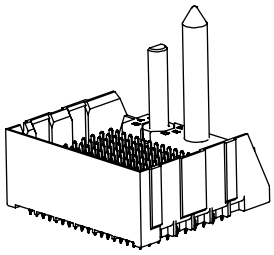
*For complete electrical and mechanical test reports, please contact impact@molex.com

Order No.	A	B	CD	Lead-free
	Module Type	Guided Key Position	Module Size	
76780-ABCD	1 = Unguided 3 = Guide left 5 = Guide right	0 = No Keying	10 = 10 Column (PTH = 0.46) 12 = 12 Column (PTH = 0.46) 16 = 16 Column (PTH = 0.46) 20 = 10 Column (PTH = 0.39) 22 = 12 Column (PTH = 0.39) 26 = 16 Column (PTH = 0.39)	Yes

Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.90 by 1.35mm (.075 by .053") Pitch Impact™ Backplane Header

76145
6-Pair



Features and Benefits
- Broad-edge-coupled, 100 ohm impedance, differential-pair system for superior density, low cross-talk and low insertion loss
- Differential-pair density up to 80 pairs per linear inch
- IEEE 10GBASE-KR and Optical Internetworking Forum (OIF) Stat Eye Compliant
- Two compliant-pin attach options
- Inline staggered, bifurcated contact beams in daughtercard interface for superior mating performance with two points of contact for long-term reliability and built-in ground-signal sequencing
- Data rates scalable up to 25 Gbps support future system performance upgrades

Reference Information*
Packaging: Tray
UL File No.: E28179
Designed In: Millimeters

Electrical
Voltage: 30V AC RMS/DC max.
Current: 0.75A per pin max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Mating Force: 0.30N (.066 lb) max. per pin
Compliant Pin Retention Force to PCB: 3.56N (.80 lb) per compliant pin average min.
Compliant Pin Insertion Force to PCB: 26.7N (6.0 lb max.) per contact
Durability: 200 cycles min.

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") typical

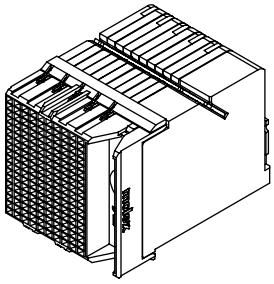
*For complete electrical and mechanical test reports, please contact impact@molex.com

Order No.	A	B	C	D	Lead-free
	Module Type	Module Size	Unguided Wall Options*	Mating Pin Length	
76145-ABCD	1 = Unguided 3 = Guide left, open right 5 = Guide right, open left 7 = Guide left, end wall right 9 = Guide right, end wall left	1 = 10 Column 6 = 16 Column 7 = 14 Column	0 = Open ends 1 = Left end wall 2 = Dual end wall 3 = Right end wall	3 = 4.50mm (PTH = 0.46) 4 = 4.90mm (PTH = 0.46) 5 = 5.50mm (PTH = 0.46) 6 = 4.50mm (PTH = 0.39) 7 = 4.90mm (PTH = 0.39) 8 = 5.50mm (PTH = 0.39)	Yes

* Unguided wall options available on #0-#3 unguided module type.
Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
Custom header pin layouts using standard pin lengths fall under separate series numbers. Contact Molex for details.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.90 by 1.35mm (.075 by .053") Pitch Impact™ Daughtercard Receptacle

76150
6-Pair



Features and Benefits
- Broad-edge-coupled, 100 ohm impedance, differential-pair system for superior density, low cross-talk and low insertion loss
- Differential-pair density up to 80 pairs per linear inch
- IEEE 10GBASE-KR and Optical Internetworking Forum (OIF) Stat Eye Compliant
- Two compliant-pin attach options
- Inline staggered, bifurcated contact beams in daughtercard interface for superior mating performance with two points of contact for long-term reliability and built-in ground-signal sequencing
- Data rates scalable up to 25 Gbps support future system performance upgrades

Reference Information*
Packaging: Tray
UL File No.: E28179
Designed In: Millimeters

Electrical
Voltage: 30V AC RMS/DC max.
Current: 0.75A per pin max.
Insulation Resistance: 10,000 Megohms min.

Mechanical
Mating Force: 0.30N (.066 lb) max. per pin
Compliant Pin Retention Force to PCB: 3.56N (.80 lb) per compliant pin average min.
Compliant Pin Insertion Force to PCB: 26.7N (6.0 lb max.) per contact
Durability: 200 cycles min.

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") typical

*For complete electrical and mechanical test reports, please contact impact@molex.com

Order No.	A	B	CD	Lead-free
	Module Type	Guided Key Position	Module Size	
76150-ABCD	1 = Unguided 3 = Guide left 5 = Guide right	0 = No Keying	10 = 10 Column (PTH = 0.46) 14 = 14 Column (PTH = 0.46) 16 = 16 Column (PTH = 0.46) 20 = 10 Column (PTH = 0.39) 24 = 14 Column (PTH = 0.39) 26 = 16 Column (PTH = 0.39)	Yes

Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.85 by 3.70mm (.073 by .146") Pitch GbX I-Trac™ Backplane Connector System

The GbX I-Trac backplane system effectively balances electrical performance, differential-pair density, mechanical robustness and cost savings to meet customer application needs. It is designed to support the telecommunications, data networking and storage markets.

At 12.5 Gbps data rates, the GbX I-Trac broadside-coupled, skew equalized design provides multiple benefits, including superior impedance control, lower cross-talk and lower insertion loss versus other open pin-field or metal shielded-backplane products.

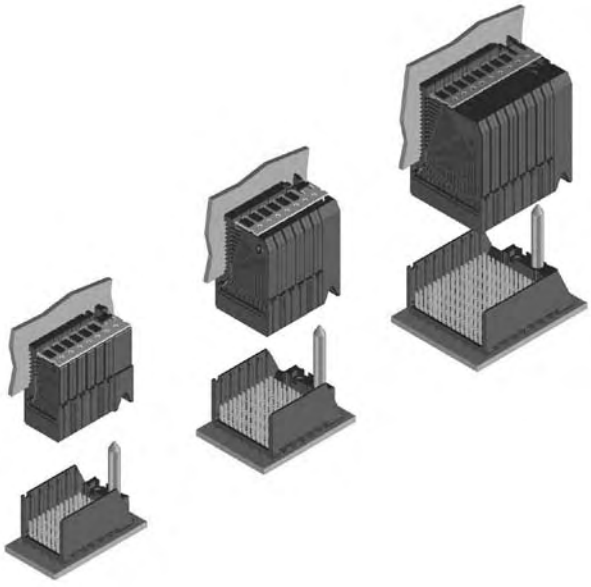
GbX I-Trac's open pin-field design allows customers the flexibility to assign high-speed differential pairs, low-speed signals, power and ground contacts anywhere within the pin- field. The broadside-coupling design allows the entire pinfield to be utilized for high-speed signals. GbX I-Trac is designed for both standard backplane architectures, as well as orthogonal backplane architectures, using the same connector part numbers. GbX I-Trac is a press-fit, flexible, mono-block based system with integrated guidance, power and signals that can be stacked end-to-end to meet customer pin-count requirements.

Features and Benefits

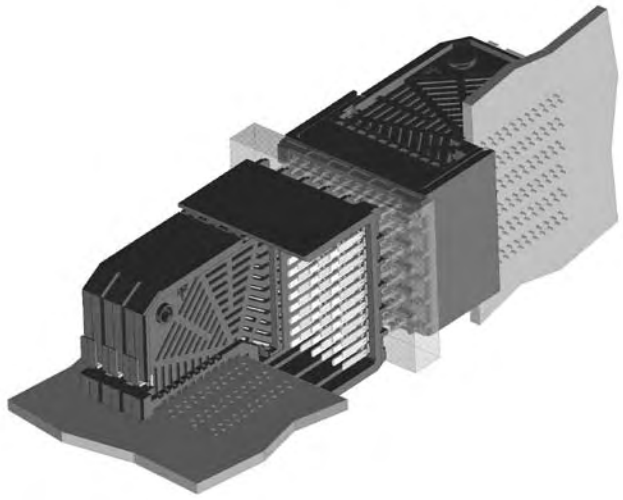
- The versatile design allows the headers to be rotated 90° on opposite sides of the midplane creating an orthogonal architecture, eliminating the need for PCB traces by using shared vias through the midplane. The same header and daughtercard part numbers are used for both standard and orthogonal configurations.
- Offers printed-circuit-board designers the flexibility to quad route the signal traces (2 pairs per layer) reducing the PCB layer count.
- Integrated guidance options and stand alone guidance options ensure superior mating performance and design flexibility.
- Power modules capable of supporting over 250.0A of current per linear inch.
- Available in backplane signal header modules, daughtercard signal modules and right angle male signal modules (coplanar).
- 7-, 11- and 15-row versions with Press-Fit module sizes ranging from 56 to 300 circuits.

The GbX I-Trac backplane system is offered in the following options:

- The 7-row product is available in 4, 6 or 10 column (56, 84 or 140 circuits) with backplane, daughtercard, coplanar and power module options
- The 11-row product is available in 5, 6, 8 or 10 column (110, 132, 176 or 220 circuits) with backplane, daughtercard, coplanar and power module options
- The 15-row product is available in 8, 9 or 10 column (240, 270 or 300 circuits) with backplane, daughtercard and power module options



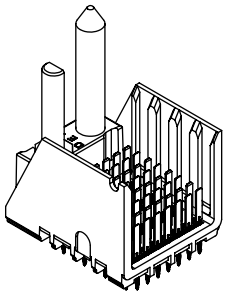
GbX I-Trac Backplane Connector System



GbX I-Trac Backplane Connector System for Orthogonal Architectures

1.85 by 3.70mm (.073 by .146") Pitch GbX I-Trac™ Backplane Signal Module

76015
7-Row



Features and Benefits
- Data rates of 12.5 Gbps or higher support future system performance upgrade
- Broadside-coupled, 100 ohm impedance, skew-equalized, differential pair system offers superior impedance control, low crosstalk and low insertion loss
- Allows standard and orthogonal connections using the same parts allows design flexibility, connector and PCB cost savings
- Quad PCB routing capability reduces PCB layers required to route high-speed lines, reducing PCB cost
- Bifurcated contact beams in daughtercard interface provides greater reliability with 2 points of contact to the header pin

Reference Information*
Packaging: Tray
UL File No.: E29179
Designed In: Millimeters

Electrical
Signal Contact Current Rating: 1.0A
Contact to Plated Through-Hole Resistance:
1.0 milliohm max.
Dielectric Withstanding Voltage: 750V RMS
Insulation Resistance: 1,000 Megaohms min.

Mechanical
Contact Insertion Force: 35.6N (8.0 lb) max. per contact
Contact Retention Force: 4.45N (1.0 lb) min. per contact
Mating Force: 0.69N (0.15 lb) max. per contact
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") min.

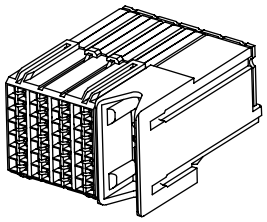
*For complete electrical and mechanical test reports, please contact i-trac@molex.com

Order No.	A	B	C	D	Lead-free
	Module Type	Module Size	Unguided Wall Options or Guided Key Position	Mating Pin Length	
76015-ABCD	1 = Unguided 3 = Guide left, open right 5 = Guide right, open left 7 = Guide left, end wall right 9 = Guide right, end wall left	4 = 4 Column 6 = 6 Column 1 = 10 Column	0 = Open ends 1 = Left end wall 2 = Dual end wall 3 = Right end wall	2 = 3.90mm 3 = 4.70mm 4 = 5.70mm 5 = 4.70 and 5.70 Staggered	Yes

Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
Custom header pin layouts using standard pin lengths fall under separate series numbers. Contact Molex for details.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.85 by 3.70mm (.073 by .146") Pitch GbX I-Trac™ Daughtercard Signal Module

76020
7-Row



Features and Benefits
- Data rates of 12.5 Gbps or higher support future system performance upgrade
- Broadside-coupled, 100 ohm impedance, skew-equalized, differential pair system offers superior impedance control, low crosstalk and low insertion loss
- Allows standard and orthogonal connections using the same parts allows design flexibility, connector and PCB cost savings
- Quad PCB routing capability reduces PCB layers required to route high-speed lines, reducing PCB cost
- Bifurcated contact beams in daughtercard interface provides greater reliability with 2 points of contact to the header pin

Reference Information*
Packaging: Tray
UL File No.: E29179
Designed In: Millimeters

Electrical
Signal Contact Current Rating: 1.0A
Contact to Plated Through-Hole Resistance:
1.0 milliohm max.
Dielectric Withstanding Voltage: 750V RMS
Insulation Resistance: 1,000 Megaohms min.

Mechanical
Contact Insertion Force: 35.6N (8.0 lb) max. per contact
Contact Retention Force: 4.45N (1.0 lb) min. per contact
Mating Force: 0.69N (0.15 lb) max. per contact
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") min.

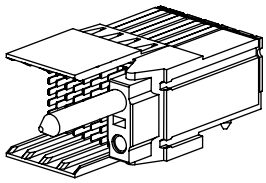
*For complete electrical and mechanical test reports, please contact i-trac@molex.com

Order No.	A	B	CD	Lead-free
	Module Type	Guided Key Position	Module Size	
76020-ABCD	1 = Unguided 3 = Guide left 5 = Guide right	0 = No Keying	04 = 4 Column 06 = 6 Column 10 = 10 Column	Yes

Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.85 by 3.70mm (.073 by .146") Pitch GbX I-Trac™ Coplanar Signal Module

76011
7-Row



Features and Benefits
- Data rates of 12.5 Gbps or higher support future system performance upgrade
- Broadside-coupled, 100 ohm impedance, skew-equalized, differential pair system offers superior impedance control, low crosstalk and low insertion loss
- Allows standard and orthogonal connections using the same parts allows design flexibility, connector and PCB cost savings
- Quad PCB routing capability reduces PCB layers required to route high-speed lines, reducing PCB cost
- Bifurcated contact beams in daughtercard interface provides greater reliability with 2 points of contact to the header pin

Reference Information*
Packaging: Tray
UL File No.: E29179
Designed In: Millimeters

Electrical
Signal Contact Current Rating: 1.0A
Contact to Plated Through-Hole Resistance:
1.0 milliohm max.
Dielectric Withstanding Voltage: 750V RMS
Insulation Resistance: 1,000 Megaohms min.

Mechanical
Contact Insertion Force: 35.6N (8.0 lb) max. per contact
Contact Retention Force: 4.45N (1.0 lb) min. per contact
Mating Force: 0.69N (0.15 lb) max. per contact
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") min.

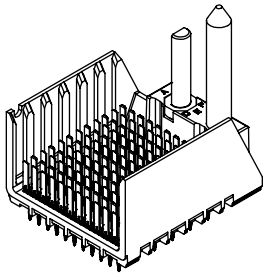
*For complete electrical and mechanical test reports, please contact i-trac@molex.com

Order No.	A	B	C	D	Lead-free
	Module Type	Module Size	Unguided Wall Options or Guided Key Position	Mating Pin Length	
76011-ABCD	1 = Unguided 3 = Guide left 5 = Guide right 7 = Guide left, end wall right 9 = Guide right, end wall lef	6 = 6 Column 1 = 10 Column	0 = Open ends 1 = Left end wall 2 = Right end wall or coplanar guide pin 3 = Dual end wall or inverted guide pin	3 = 4.70mm 5 = 3.80 and 4.70 Staggered 6 = 3.80 and 4.70 Staggered (Reference drawings for staggering options)	Yes

Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.85 by 3.70mm (.073 by .146") Pitch GbX I-Trac™ Backplane Signal Module

75705
11-Row



Features and Benefits
- Data rates of 12.5 Gbps or higher support future system performance upgrade
- Broadside-coupled, 100 ohm impedance, skew-equalized, differential pair system offers superior impedance control, low crosstalk and low insertion loss
- Allows standard and orthogonal connections using the same parts allows design flexibility, connector and PCB cost savings
- Quad PCB routing capability reduces PCB layers required to route high-speed lines, reducing PCB cost
- Bifurcated contact beams in daughtercard interface provides greater reliability with 2 points of contact to the header pin

Reference Information*
Packaging: Tray
UL File No.: E29179
Designed In: Millimeters

Electrical
Signal Contact Current Rating: 1.0A
Contact to Plated Through-Hole Resistance:
1.0 milliohm max.
Dielectric Withstanding Voltage: 750V RMS
Insulation Resistance: 1,000 Megaohms min.

Mechanical
Contact Insertion Force: 35.6N (8.0 lb) max. per contact
Contact Retention Force: 4.45N (1.0 lb) min. per contact
Mating Force: 0.69N (0.15 lb) max. per contact
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") min.

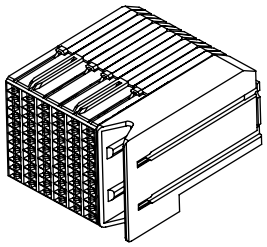
*For complete electrical and mechanical test reports, please contact i-trac@molex.com

Order No.	A	B	C	D	Lead-free
	Module Type	Module Size	Unguided Wall Options or Guided Key Position*	Mating Pin Length	
75705-ABCD	1 = Unguided 3 = Guide left, open right 5 = Guide right, open left 7 = Guide left, end wall right 9 = Guide right, end wall left	5 = 5 Column 6 = 6 Column 8 = 8 Column 1 = 10 Column	0 = Open ends 1 = Left end wall 2 = Dual end wall 3 = Right end wall	2 = 3.90mm 3 = 4.70mm 4 = 5.70mm 5 = 4.70 and 5.70 Staggered	Yes

Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
Custom header pin layouts using standard pin lengths fall under separate series numbers. Contact Molex for details.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.85 by 3.70mm (.073 by .146") Pitch GbX I-Trac™ Daughtercard Signal Module

75710
11-Row



Features and Benefits
- Data rates of 12.5 Gbps or higher support future system performance upgrade
- Broadside-coupled, 100 ohm impedance, skew-equalized, differential pair system offers superior impedance control, low crosstalk and low insertion loss
- Allows standard and orthogonal connections using the same parts allows design flexibility, connector and PCB cost savings
- Quad PCB routing capability reduces PCB layers required to route high-speed lines, reducing PCB cost
- Bifurcated contact beams in daughtercard interface provides greater reliability with 2 points of contact to the header pin

Reference Information*
Packaging: Tray
UL File No.: E29179
Designed In: Millimeters

Electrical
Signal Contact Current Rating: 1.0A
Contact to Plated Through-Hole Resistance:
1.0 milliohm max.
Dielectric Withstanding Voltage: 750V RMS
Insulation Resistance: 1,000 Megaohms min.

Mechanical
Contact Insertion Force: 35.6N (8.0 lb) max. per contact
Contact Retention Force: 4.45N (1.0 lb) min. per contact
Mating Force: 0.69N (0.15 lb) max. per contact
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") min.

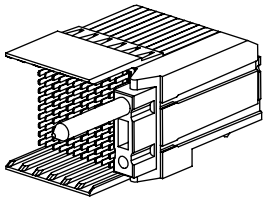
*For complete electrical and mechanical test reports, please contact i-trac@molex.com

Order No.	A	B	CD	Lead-free
	Module Type	Guided Key Position	Module Size	
75710-ABCD	1 = Unguided 3 = Guide left 5 = Guide right	0 = No Keying	05 = 5 Column 06 = 6 Column 08 = 8 Column 10 = 10 Column	Yes

Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.85 by 3.70mm (.073 by .146") Pitch GbX I-Trac™ Coplanar Signal Module

75910
11-Row



Features and Benefits
- Data rates of 12.5 Gbps or higher support future system performance upgrade
- Broadside-coupled, 100 ohm impedance, skew-equalized, differential pair system offers superior impedance control, low crosstalk and low insertion loss
- Allows standard and orthogonal connections using the same parts allows design flexibility, connector and PCB cost savings
- Quad PCB routing capability reduces PCB layers required to route high-speed lines, reducing PCB cost
- Bifurcated contact beams in daughtercard interface provides greater reliability with 2 points of contact to the header pin

Reference Information*
Packaging: Tray
UL File No.: E29179
Designed In: Millimeters

Electrical
Signal Contact Current Rating: 1.0A
Contact to Plated Through-Hole Resistance:
1.0 milliohm max.
Dielectric Withstanding Voltage: 750V RMS
Insulation Resistance: 1,000 Megaohms min.

Mechanical
Contact Insertion Force: 35.6N (8.0 lb) max. per contact
Contact Retention Force: 4.45N (1.0 lb) min. per contact
Mating Force: 0.69N (0.15 lb) max. per contact
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") min.

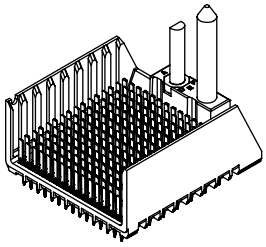
*For complete electrical and mechanical test reports, please contact i-trac@molex.com

Order No.	A	B	C	D	Lead-free
	Module Type	Module Size	Unguided Wall Options or Guided Options	Mating Pin Length	
75910-ABCD	1 = Unguided 3 = Guide left 5 = Guide right 7 = Guide left, end wall right 9 = Guide right, end wall left	5 = 5 Column 6 = 6 Column 1 = 10 Column	0 = Open ends 1 = Left end wall 2 = Right end wall or coplanar guide pin 3 = Dual end wall or inverted guide pin	3 = 4.70mm 5 = 3.80 and 4.70 Staggered	Yes

Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.85 by 3.70mm (.073 by .146") Pitch GbX I-Trac™ Backplane Signal Module

76035
15-Row



Features and Benefits
- Data rates of 12.5 Gbps or higher support future system performance upgrade
- Broadside-coupled, 100 ohm impedance, skew-equalized, differential pair system offers superior impedance control, low crosstalk and low insertion loss
- Allows standard and orthogonal connections using the same parts allows design flexibility, connector and PCB cost savings
- Quad PCB routing capability reduces PCB layers required to route high-speed lines, reducing PCB cost
- Bifurcated contact beams in daughtercard interface provides greater reliability with 2 points of contact to the header pin

Reference Information*
Packaging: Tray
UL File No.: E29179
Designed In: Millimeters

Electrical
Signal Contact Current Rating: 1.0A
Contact to Plated Through-Hole Resistance:
1.0 milliohm max.
Dielectric Withstanding Voltage: 750V RMS
Insulation Resistance: 1,000 Megaohms min.

Mechanical
Contact Insertion Force: 35.6N (8.0 lb) max. per contact
Contact Retention Force: 4.45N (1.0 lb) min. per contact
Mating Force: 0.69N (0.15 lb) max. per contact
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") min.

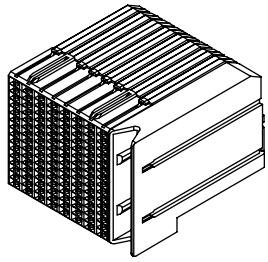
*For complete electrical and mechanical test reports, please contact i-trac@molex.com

Order No.	A	B	C	D	Lead-free
	Module Type	Module Size	Unguided Wall Options or Guided Key Position	Mating Pin Length	
76035-ABCD	1 = Unguided 3 = Guide left, open right 5 = Guide right, open left 7 = Guide left, end wall right 9 = Guide right, end wall left	8 = 8 Column 9 = 9 Column 1 = 10 Column	0 = Open ends 1 = Left end wall 2 = Dual end wall 3 = Right end wall	2 = 3.90mm 3 = 4.70mm 4 = 5.70mm 5 = 4.70 and 5.70 Staggered	Yes

Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
Custom header pin layouts using standard pin lengths fall under separate series numbers. Contact Molex for details.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.85 by 3.70mm (.073 by .146") Pitch GbX I-Trac™ Daughtercard Signal Module

76040
15-Row



Features and Benefits
- Data rates of 12.5 Gbps or higher support future system performance upgrade
- Broadside-coupled, 100 ohm impedance, skew-equalized, differential pair system offers superior impedance control, low crosstalk and low insertion loss
- Allows standard and orthogonal connections using the same parts allows design flexibility, connector and PCB cost savings
- Quad PCB routing capability reduces PCB layers required to route high-speed lines, reducing PCB cost
- Bifurcated contact beams in daughtercard interface provides greater reliability with 2 points of contact to the header pin

Reference Information*
Packaging: Tray
UL File No.: E29179
Designed In: Millimeters

Electrical
Signal Contact Current Rating: 1.0A
Contact to Plated Through-Hole Resistance:
1.0 milliohm max.
Dielectric Withstanding Voltage: 750V RMS
Insulation Resistance: 1,000 Megaohms min.

Mechanical
Contact Insertion Force: 35.6N (8.0 lb) max. per contact
Contact Retention Force: 4.45N (1.0 lb) min. per contact
Mating Force: 0.69N (0.15 lb) max. per contact
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: High performance Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin or Tin/Lead
Underplating—Nickel
PCB Thickness: 1.60mm (.062") min.

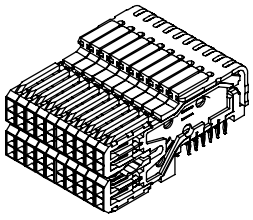
*For complete electrical and mechanical test reports, please contact i-trac@molex.com

Order No.	A	B	CD	Lead-free
	Module Type	Guided Key Position	Module Size	
76040-ABCD	1 = Unguided 3 = Guide left 5 = Guide right	0 = No Keying	08 = 8 Column 09 = 9 Column 10 = 10 Column	Yes

Note: Replace A, B, C, D with the values listed to the right to configure your Order Number.
A guide left backplane mates to a guide left daughtercard and vice versa. They are the same.
For Tin/Lead and Keying options, please visit www.molex.com.

1.85mm (.073") Pitch GbX® Board-to-Board Custom Daughtercard Receptacle

75650/75670/75676
Right Angle
2 Pair Daughtercards



Features and Benefits
- Signal wafers, GbX L-Series blocks, guide modules and power modules are mounted onto a metal stiffener to make a custom connector. Assemblies are assigned a custom part number (see ordering information below)
- Data rates up to 10 Gbps support future daughtercard speed upgrades
- Up to 27 real differential pairs per linear inch (11 real differential pairs per 10.00mm)
- Optimized differential pair contacts promote easier board trace routing
- GbX L-Series is a lower cost, unshielded version of GbX designed for lower-speed requirements
- GbX L-Series blocks are manufactured in 5 column blocks, consisting of 5 signal circuits per column for 2 pair, and can be combined on same stiffener with standard GbX wafers to create a hybrid daughtercard assembly

Reference Information
Product Specification: PS-75221-999
Packaging: Tray
UL File No.: E29179
Mates With: 75827 and 75861
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 1 milliohm max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force to PCB: 45N max. per press-fit pin
Contact Retention Force: 9N min. per press-fit pin
Mating Force: .6N per circuit
Unmating Force: .3N per circuit
Signal Normal Force: .4N min.
Durability: 200 cycles

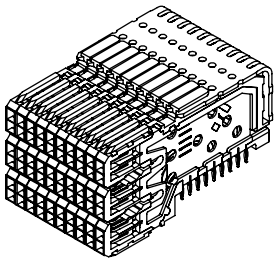
Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact—Select Gold
Tail—Tin/Lead
PCB Thickness: 1.60mm (.063") min.

Order No.	Description	Lead-free
75650-****	2 Pair Daughtercard	RoHS compliant by exemption
75670-****	2 L Daughtercard	
75676-****	2 Pair Hybrid Daughtercard	

Note: GbX® is a registered trademark of Amphenol Corporation
Please visit the Backplane Configurator at www.molex.com/configurator.html to configure your own custom daughtercard.

1.85mm (.073") Pitch GbX® Board-to-Board Custom Daughtercard Receptacle

75370/75660/75666
Right Angle
3 Pair Daughtercards



Features and Benefits
- Signal wafers, GbX L-Series blocks, guide modules and power modules are mounted onto a metal stiffener to make a custom connector. Assemblies are assigned a custom part number (see ordering information below)
- Data rates up to 10 Gbps support future daughtercard speed upgrades
- Up to 41 real differential pairs per linear inch (16 real differential pairs per 10.00mm)
- Optimized differential pair contacts promote easier board trace routing
- GbX L-Series is a lower-cost, unshielded version of GbX designed for lower-speed requirements
- GbX L-Series blocks are manufactured in 5 column blocks, consisting of 8 signal circuits per column for 3 pair, and can be combined on same stiffener with standard GbX wafers to create a hybrid daughtercard assembly

Reference Information
Product Specification: PS-75221-999
Packaging: Tray
UL File No.: E29179
Mates With: 75433/75649
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 1 milliohm max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force to PCB: 45N max. per press-fit pin
Contact Retention Force: 9N min. per press-fit pin
Mating Force: .6N per circuit
Unmating Force: .3N per circuit
Signal Normal Force: .4N min.
Durability: 200 cycles

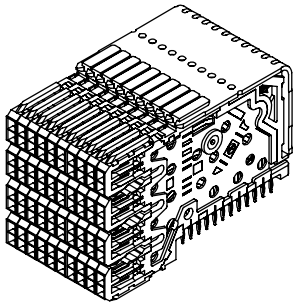
Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact—Select Gold
Tail—Tin/Lead
PCB Thickness: 1.60mm (.063") min.

Order No.	Description	Lead-free
75370-****	3 Pair Daughtercard	RoHS compliant by exemption
75660-****	3 L Daughtercard	
75666-****	3 Pair Hybrid Daughtercard	

Note: GbX® is a registered trademark of Amphenol Corporation
Please visit the Backplane Configurator at www.molex.com/configurator.html to configure your own custom daughtercard.

1.85mm (.073") Pitch GbX® Board-to-Board Custom Daughtercard Receptacle

75220/75420/75426
Right Angle 4 Pair Daughtercards



Order No.	Description	Lead-free
75220-****	4 Pair Daughtercard	RoHS compliant by exemption
75420-****	4 L Daughtercard	
75426-****	4 Pair Hybrid Daughtercard	

Note: GbX® is a registered trademark of Amphenol Corporation
Please visit the Backplane Configurator at www.molex.com/configurator.html to configure your own custom daughtercard.

Features and Benefits
- Signal wafers, GbX L-Series blocks, guide modules and power modules are mounted onto a metal stiffener to make a custom connector. Assemblies are assigned a custom part number (see ordering information below)
- Data rates up to 10 Gbps support future daughtercard speed upgrades
- Up to 55 real differential pairs per linear inch (22 real differential pairs per 10.00mm)
- Optimized differential pair contacts promote easier board trace routing
- GbX L-Series is a lower-cost, unshielded version of GbX designed for lower-speed requirements
- GbX L-Series blocks are manufactured in 5 column blocks, consisting of 11 signal circuits per column for 4 pair, and can be combined on same stiffener with standard GbX wafers to create a hybrid daughtercard assembly

Reference Information
Product Specification: PS-75221-999
Packaging: Tray
UL File No.: E29179
Mates With: 75235 and 75465
Designed In: Millimeters

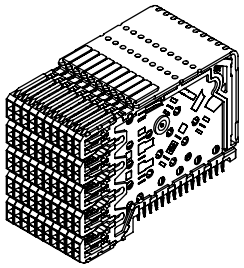
Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 1 milliohm max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force to PCB: 45N max. per press-fit pin
Contact Retention Force: 9N min. per press-fit pin
Mating Force: .6N per circuit
Unmating Force: .3N per circuit
Signal Normal Force: .4N min.
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact—Select Gold
Tail—Tin/Lead
PCB Thickness: 1.60mm (.063") min.

1.85mm (.073") Pitch GbX® Board-to-Board Custom Daughtercard Receptacle

75360
Right Angle 5 Pair Daughtercard



Order No.	Description	Lead-free
75360-****	5 Pair Daughtercard	RoHS compliant by exemption

Note: GbX® is a registered trademark of Amphenol Corporation
Please visit the Backplane Configurator at www.molex.com/configurator.html to configure your own custom daughtercard.

Features and Benefits
- Signal wafers, guide modules and power modules are mounted onto a metal stiffener to make a custom connector. Assemblies are assigned a custom part number (see ordering information below)
- Data rates up to 10 Gbps support future daughtercard speed upgrades
- Up to 69 real differential pairs per linear inch (27 real differential pairs per 10.00mm)
- Optimized differential pair contacts promote easier board trace routing

Reference Information
Product Specification: PS-75221-999
Packaging: Tray
UL File No.: E29179
Mates With: 75237
Designed In: Millimeters

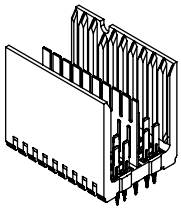
Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 1 milliohm max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force to PCB: 45N max. per press-fit pin
Contact Retention Force: 9N min. per press-fit pin
Mating Force: .6N per circuit
Unmating Force: .3N per circuit
Signal Normal Force: .4N min.
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact—Select Gold
Tail—Tin/Lead
PCB Thickness: 1.60mm (.063") min.

1.85mm (.073") Pitch GbX® Board-to-Board Backplane Header

75827
Vertical
2 Pair Open Backplane



Features and Benefits
- Up to 27 real differential pairs per linear inch (11 real differential pairs per 10.00mm)
- Optimized differential pair contacts promote easier board trace routing
- Data rates greater than 6 Gbps, up to 10 Gbps, support future daughtercard speed upgrades

Reference Information
Product Specification: PS-75221-999
Packaging: Tray
UL File No.: E29179
Mates With: 75650 and 75676
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 1 milliohm max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force to PCB: 45N max. per press-fit pin
Contact Retention Force: 9N min. per press-fit pin
Mating Force: .6N per circuit
Unmating Force: 0.3N per circuit
Normal Force: 40g min.
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold
Tail—Tin/Lead
PCB Thickness: 1.60mm (.063") min.

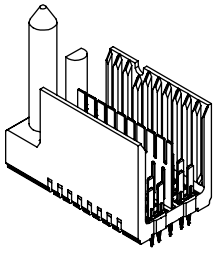
Circuits	Order No.	Description	Lead-free
40	75827-010X	2 Pair by 10 Column	RoHS compliant by exemption
100	75827-020X	2 Pair by 25 Column	

The last digit in the Molex part number sequence defines the length of the signal pin.
3 = 3.55mm (.140") Contact Wipe = 1.00mm (.039")
4 = 4.55mm (.179") Contact Wipe = 2.00mm (.079")
5 = 5.55mm (.219") Contact Wipe = 3.00mm (.118")

Custom pinouts available, please contact Molex
Note: GbX is a registered trademark of Amphenol Corporation

1.85mm (.073") Pitch GbX® Board-to-Board Backplane Header

75827
Vertical
2 Pair Guided Backplane



Features and Benefits
- Up to 27 real differential pairs per linear inch (11 real differential pairs per 10.00mm)
- Optimized differential pair contacts promote easier board trace routing
- Data rates greater than 6 Gbps, up to 10 Gbps, support future daughtercard speed upgrades

Reference Information
Product Specification: PS-75221-999
Packaging: Tray
UL File No.: E29179
Mates With: 75650 and 75676
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 1 milliohm max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force to PCB: 45N max. per press-fit pin
Contact Retention Force: 9N min. per press-fit pin
Mating Force: .6N per circuit
Unmating Force: 0.3N per circuit
Normal Force: 40g min.
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold
Tail—Tin/Lead
PCB Thickness: 1.60mm (.063") min.

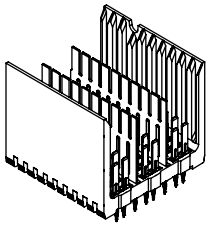
Circuits	Order No.	Description	Guide	Code Key	Lead-free
40	75827-210X	2 Pair by 10 Column	Left	No Code Key	RoHS compliant by exemption
	75827-21XX			Code Key "X"	
	75827-410X	2 Pair by 10 Column	Right	No Code Key	
	75827-41XX			Code Key "X"	
100	75827-220X	2 Pair by 25 Column	Left	No Code Key	
	75827-22XX			Code Key "X"	
	75827-420X	2 Pair by 25 Column	Right	No Code Key	
	75827-42XX			Code Key "X"	

The "X" in the second to last position of the Molex part number is replaced by a digit to define the keying position. There are 8 different keying positions available: A = 1, B = 2, C = 3, D = 4, E = 5, F = 6, G = 7, H = 8
The last digit in the Molex part number sequence defines the length of the signal pin.
3 = 3.55mm (.140") Contact Wipe = 1.00mm (.039")
4 = 4.55mm (.179") Contact Wipe = 2.00mm (.079")
5 = 5.55mm (.219") Contact Wipe = 3.00mm (.118")

Custom pinouts available, please contact Molex
Note: GbX is a registered trademark of Amphenol Corporation

1.85mm (.073") Pitch GbX® Board-to-Board Backplane Header

75433
Vertical
3 Pair Open Backplane



Features and Benefits
- Up to 41 real differential pairs per linear inch (16 real differential pairs per 10.00mm)
- Optimized differential pair contacts promote easier board trace routing
- Data rates greater than 6 Gbps, up to 10 Gbps, support future daughtercard speed upgrades

Reference Information
Product Specification: PS-75221-999
Packaging: Tube
UL File No.: E29179
Mates With: 75370 and 75666
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 1 milliohm max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force to PCB: 45N max. per press-fit pin
Contact Retention Force: 9N min. per press-fit pin
Mating Force: .6N per circuit
Unmating Force: .3N per circuit
Normal Force: 40g min.
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold
Tail—Tin/Lead
PCB Thickness: 1.60mm (.063") min.

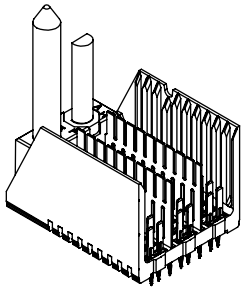
Circuits	Order No.	Description	Lead-free
30	75433-050X	3 Pair by 5 Column	RoHS compliant by exemption
60	75433-010X	3 Pair by 10 Column	
150	75433-020X	3 Pair by 25 Column	

The last digit in the Molex part number sequence defines the length of the signal pin.
3 = 3.55mm (.140") Contact Wipe = 1.00mm (.039")
4 = 4.55mm (.179") Contact Wipe = 2.00mm (.079")
5 = 5.55mm (.219") Contact Wipe = 3.00mm (.118")

Custom pinouts available, please contact Molex
Note: GbX is a registered trademark of Amphenol Corporation

1.85mm (.073") Pitch GbX® Board-to-Board Backplane Header

75433
Vertical
3 Pair Guided Backplane



Features and Benefits
- Up to 41 real differential pairs per linear inch (16 real differential pairs per 10.00mm)
- Optimized differential pair contacts promote easier board trace routing
- Data rates greater than 6 Gbps, up to 10 Gbps, support future daughtercard speed upgrades

Reference Information
Product Specification: PS-75221-999
Packaging: Tube
UL File No.: E29179
Mates With: 75370 and 75666
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 1 milliohm max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force to PCB: 45N max. per press-fit pin
Contact Retention Force: 9N min. per press-fit pin
Mating Force: .6N per circuit
Unmating Force: .3N per circuit
Normal Force: 40g min
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold
Tail—Tin/Lead
PCB Thickness: 1.60mm (.063") min.

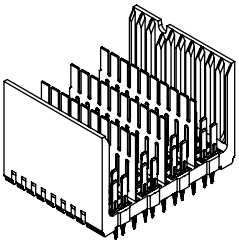
Circuits	Order No.	Description	Guide	Code Key	Lead-free
60	75433-210X	3 Pair by 10 Column	Left	No Code Key	RoHS compliant by exemption
	75433-21XX			Code Key "X"	
	75433-410X	3 Pair by 10 Column	Right	No Code Key	
	75433-41XX			Code Key "X"	
150	75433-220X	3 Pair by 25 Column	Left	No Code Key	
	75433-22XX			Code Key "X"	
	75433-420X	3 Pair by 25 Column	Right	No Code Key	
	75433-42XX			Code Key "X"	

The "X" in the second to last position of the Molex part number is replaced by a digit to define the keying position. There are 8 different keying positions available: A = 1, B = 2, C = 3, D = 4, E = 5, F = 6, G = 7, H = 8
The last digit in the Molex part number sequence defines the length of the signal pin.
3 = 3.55mm (.140") Contact Wipe = 1.00mm (.039")
4 = 4.55mm (.179") Contact Wipe = 2.00mm (.079")
5 = 5.55mm (.219") Contact Wipe = 3.00mm (.118")

Custom pinouts available, please contact Molex
Note: GbX is a registered trademark of Amphenol Corporation

1.85mm (.073") Pitch GbX® Board-to-Board Backplane Header

75235
Vertical
4 Pair Open Backplane



Features and Benefits
- Up to 55 real differential pairs per linear inch (22 real differential pairs per 10.00mm)
- Optimized differential pair contacts promote easier board trace routing
- Data rates greater than 6 Gbps, up to 10 Gbps, support future daughtercard speed upgrades

Reference Information
Product Specification: PS-75221-999
Packaging: Tray
UL File No.: E29179
Mates With: 75220 and 75426
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 1 milliohm max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force to PCB: 45N max. per press-fit pin
Contact Retention Force: 9N min. per press-fit pin
Mating Force: .6N per circuit
Unmating Force: .3N per circuit
Normal Force: 40g min.
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold
Tail—Tin/Lead
PCB Thickness: 1.60mm (.063") min.

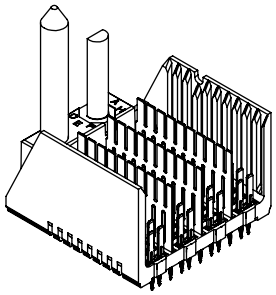
Circuits	Order No.	Desciption	Lead-free
56	75235-070X	4 Pair by 7 Column	RoHS compliant by exemption
80	75235-010X	4 Pair by 10 Column	
200	75235-020X	4 Pair by 25 Column	

The last digit in the Molex part number sequence defines the length of the signal pin.
3 = 3.55mm (.140") Contact Wipe = 1.00mm (.039")
4 = 4.55mm (.179") Contact Wipe = 2.00mm (.079")
5 = 5.55mm (.219") Contact Wipe = 3.00mm (.118")

Custom pinouts available, please contact Molex
Note: GbX is a registered trademark of Amphenol Corporation

1.85mm (.073") Pitch GbX® Board-to-Board Backplane Header

75235
Vertical
4 Pair Guided Backplane



Features and Benefits
- Up to 55 real differential pairs per linear inch (22 real differential pairs per 10.00mm)
- Optimized differential pair contacts promote easier board trace routing
- Data rates greater than 6 Gbps, up to 10 Gbps, support future daughtercard speed upgrades

Reference Information
Product Specification: PS-75221-999
Packaging: Trays
UL File No.: E29179
Mates With: 75220 and 75426
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 1 milliohm max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force to PCB: 45N max. per press-fit pin
Contact Retention Force: 9N min. per press-fit pin
Mating Force: .6N per circuit
Unmating Force: .3N per circuit
Normal Force: 40g min
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold
Tail—Tin/Lead
PCB Thickness: 1.60mm (.063") min.

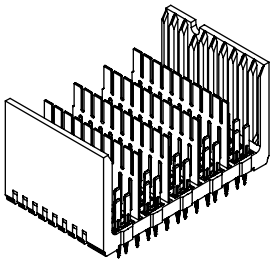
Circuits	Order No.	Description	Guide	Code Key	Lead-free
56	75235-270X	4 Pair by 7 Column	Left	No Code Key	RoHS compliant by exemption
	75235-27XX			Code Key "X"	
	75235-470X	4 Pair by 7 Column	Right	No Code Key	
	75235-47XX			Code Key "X"	
80	75235-210X	4 Pair by 10 Column	Left	No Code Key	
	75235-21XX			Code Key "X"	
	75235-410X	4 Pair by 10 Column	Right	No Code Key	
	75235-41XX			Code Key "X"	
200	75235-220X	4 Pair by 25 Column	Left	No Code Key	
	75235-22XX			Code Key "X"	
	75235-420X	4 Pair by 25 Column	Right	No Code Key	
	75235-42XX			Code Key "X"	

The "X" in the second to last position of the Molex part number is replaced by a digit to define the keying position. There are 8 different keying positions available: A = 1, B = 2, C = 3, D = 4, E = 5, F = 6, G = 7, H = 8
The last digit in the Molex part number sequence defines the length of the signal pin.
3 = 3.55mm (.140") Contact Wipe = 1.00mm (.039")
4 = 4.55mm (.179") Contact Wipe = 2.00mm (.079")
5 = 5.55mm (.219") Contact Wipe = 3.00mm (.118")

Custom pinouts available, please contact Molex
Note: GbX is a registered trademark of Amphenol Corporation

1.85mm (.073") Pitch GbX® Board-to-Board Backplane Header

75237
Vertical
5 Pair Open Backplane



Features and Benefits
- Up to 69 real differential pairs per linear inch (27 real differential pairs per 10.00mm)
- Optimized differential pair contacts promote easier board trace routing
- Data rates greater than 6 Gbps, up to 10 Gbps, support future daughtercard speed upgrades

Reference Information
Product Specification: PS-75221-999
Packaging: Tray
UL File No.: E29179
Mates With: 75360
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 1 milliohm max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force to PCB: 45N max. per press-fit pin
Contact Retention Force: 9N min. per press-fit pin
Mating Force: .6N per circuit
Unmating Force: .3N per circuit
Normal Force: 40g min.
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold
Tail—Tin/Lead
PCB Thickness: 1.60mm (.063") min.

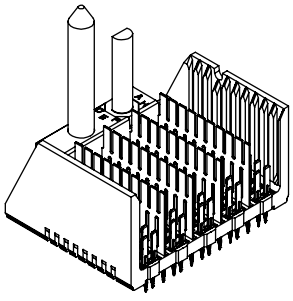
Circuits	Order No.	Description	Lead-free
100	75237-010X	5 Pair by 10 Column	RoHS compliant by exemption
250	75237-020X	5 Pair by 25 Column	

Custom pinouts available, please contact Molex
Note: GbX is a registered trademark of Amphenol Corporation

The last digit in the Molex part number sequence defines the length of the signal pin.
3 = 3.55mm (.140") Contact Wipe = 1.00mm (.039")
4 = 4.55mm (.179") Contact Wipe = 2.00mm (.079")
5 = 5.55mm (.219") Contact Wipe = 3.00mm (.118")

1.85 mm (.073") Pitch GbX® Board-to-Board Backplane Header

75237
Vertical
5 Pair Guided Backplane



Features and Benefits
- Up to 69 real differential pairs per linear inch (27 real differential pairs per 10.00mm)
- Optimized differential pair contacts promote easier board trace routing
- Data rates greater than 6 Gbps, up to 10 Gbps, support future daughtercard speed upgrades

Reference Information
Product Specification: PS-75221-999
Packaging: Tray
UL File No.: E29179
Mates With: 75360
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 1 milliohm max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force to PCB: 45N max. per press-fit pin
Contact Retention Force: 9N min. per press-fit pin
Mating Force: .6N per circuit
Unmating Force: .3N per circuit
Normal Force: 40g min.
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold
Tail—Tin/Lead
PCB Thickness: 1.60mm (.063") min.

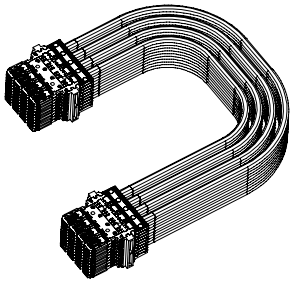
Circuits	Order No.	Description	Guide	Code Key	Lead-free
100	75235-210X	5 Pair by 10 Column	Left	No Code Key	RoHS compliant by exemption
	75235-21XX			Code Key "X"	
	75235-410X	5 Pair by 10 Column	Right	No Code Key	
	75235-41XX			Code Key "X"	
250	75235-220X	5 Pair by 25 Column	Left	No Code Key	
	75235-22XX			Code Key "X"	
	75235-420X	5 Pair by 25 Column	Right	No Code Key	
	75235-42XX			Code Key "X"	

Custom pinouts available, please contact Molex
Note: GbX is a registered trademark of Amphenol Corporation

The "X" in the second to last position of the Molex part number is replaced by a digit to define the keying position. There are 8 different keying positions available: A = 1, B = 2, C = 3, D = 4, E = 5, F = 6, G = 7, H = 8
The last digit in the Molex part number sequence defines the length of the signal pin.
3 = 3.55mm (.140") Contact Wipe = 1.00mm (.039")
4 = 4.55mm (.179") Contact Wipe = 2.00mm (.079")
5 = 5.55mm (.219") Contact Wipe = 3.00mm (.118")

1.85 x 1.85mm (.073 x .073") Pitch GbX® Cable Assembly

4 Pair



Features and Benefit

- Bifurcated contact beams provide greater reliability with two points of contact to header pins
- GbX 4-pair configuration provides high density (55 real-differential pairs per linear inch) with more differential pairs than similar backplane products (2, 3 and 5 pair configurations are possible extensions*)
- Ground shield for individual parts reduces crosstalk at the mating interface for improved system performance
- Opposed gap-resistance welding re-flows cable conductor into the signal contact, providing a clean electrical path
- Low-pressure, strain-relief insert molding provides strain relief for the termination area and allows tighter cable shield to conductor tolerances for better impedance control

Reference Information

Mates With: 75235 and 75717
Designed In: Millimeters

Electrical

Current: 1.0A
Dielectric Withstanding Voltage: 250V
Insulation Resistance: 40 Megohms min.

Mechanical

Contact Insertion Force: 44.48N (10.00 lbf) typical per contact
Contact Retention to Housing: 8.90N (2.00 lbf) min. per contact
Insertion Force to PCB: 0.59N (0.13 lbf) max. per contact
Mating Force: 0.59N (0.13 lbf) max. per contact
Unmating Force: 0.29N (0.07 lbf) min. per contact
Durability: 250 cycles max.

Physical

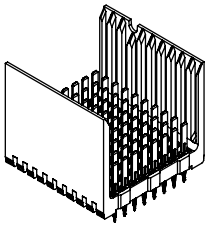
Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold min.
Solder Tail Area—Tin
Underplating—Nickel
PCB Thickness: 1.60mm (.062") typical

Order No.	Wafer Configuration	Lead-free
GbX cables only sold as terminated cable assemblies. Part numbers and sales drawings will be established based on specific customer design requirements. Contact Molex for tooling justification	4 pair	Yes

Cable Length: Dependent upon customer design. Contact Molex with specific requirements.
Note: GbX is a registered trademark of Amphenol Corporation

1.85mm (.073") Pitch GbX® L-Series Board-to-Board Backplane Header

75649
Vertical 3 Pair GbX L-Series Open Backplane



Features and Benefits
- GbX L-Series is a lower-cost, unshielded version of GbX designed for lower-speed circuits
- GbX L-Series allows customers to customize their daughtercards to their specific needs with a mix of low and high speeds
- End-to-end stackable with standard GbX headers

Reference Information
Product Specification: PS-75221-999
Packaging: Tube
UL File No.: E29179
Mates With: 75660 and 75666
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0 A
Contact Resistance: 1 milliohm max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force to PCB: 45N max. per press-fit pin
Contact Retention Force: 9N min. per press-fit pin
Mating Force: .6N per circuit
Unmating Force: .3N per circuit
Normal Force: 40g min.
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold
Tail—Tin/Lead
PCB Thickness: 1.60mm (.063") min.

Circuits	Order No.	Description	Lead-free
40	75649-050X	3 L by 5 Column	RoHS compliant by exemption
80	75649-010X	3 L by 10 Column	

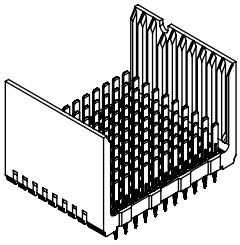
Custom pinouts available, please contact Molex
Note: GbX is a registered trademark of Amphenol Corporation

The last digit in the Molex part number sequence defines the length of the signal pin.

3 = 3.55mm (.140")	Contact Wipe = 1.00mm (.039")
4 = 4.55mm (.179")	Contact Wipe = 2.00mm (.079")
5 = 5.55mm (.219")	Contact Wipe = 3.00mm (.118")

1.85mm (.073") Pitch GbX® L-Series Board-to-Board Backplane Header

75465
Vertical 4 Pair GbX L-Series Open Backplane



Features and Benefits
- GbX L-Series is a lower-cost, unshielded version of GbX designed for lower-speed circuits
- GbX L-Series allows customers to customize their daughtercards to their specific needs with a mix of low and high speeds
- End-to-end stackable with standard GbX headers

Reference Information
Product Specification: PS-75221-999
Packaging: Tray
UL File No.: E29179
Mates With: 75420 and 75426
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 1 milliohm max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force to PCB: 45N max. per press-fit pin
Contact Retention Force: 9N min. per press-fit pin
Mating Force: .6N per circuit
Unmating Force: .3N per circuit
Normal Force: 40g min.
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold
Tail—Tin/Lead
PCB Thickness: 1.60mm (.063") min.

Circuits	Order No.	Description	Lead-free
55	75465-050X	4 L by 5 Column	RoHS compliant by exemption
110	75465-010X	4 L by 10 Column	

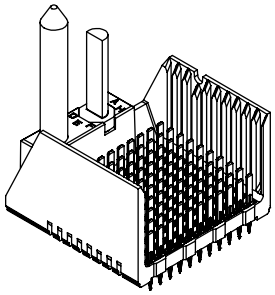
Custom pinouts available, please contact Molex
Note: GbX is a registered trademark of Amphenol Corporation

The last digit in the Molex part number sequence defines the length of the signal pin.

3 = 3.55mm (.140")	Contact Wipe = 1.00mm (.039")
4 = 4.55mm (.179")	Contact Wipe = 2.00mm (.079")
5 = 5.55mm (.219")	Contact Wipe = 3.00mm (.118")

1.85mm (.073") Pitch GbX® L-Series Board-to-Board Backplane Header

75465
Vertical
4 Pair GbX L-Series Guided Backplane



Features and Benefits
- GbX L-Series is a lower-cost, unshielded version of GbX designed for lower-speed circuits
- GbX L-Series allows customers to customize their daughtercards to their specific needs with a mix of low and high speeds
- End-to-end stackable with standard GbX headers

Reference Information
Product Specification: PS-75221-999
Packaging: Trays
UL File No.: E29179
Mates With: 75420/75426
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 1 milliohm max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force to PCB: 45N max. per press-fit pin
Contact Retention Force: 9N min. per press-fit pin
Mating Force: .6N per circuit
Unmating Force: .3N per circuit
Normal Force: 40g min
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold
Tail—Tin/Lead
PCB Thickness: 1.60mm (.063") min.

Circuits	Order No.	Description	Guide	Code Key	Lead-free
55	75465-250X	4 Pair by 5 Column	Left	No Code Key	RoHS compliant by exemption
	75465-25XX			Code Key "X"	
	75465-450X	4 Pair by 5 Column	Right	No Code Key	
	75465-45XX			Code Key "X"	
110	75465-210X	4 Pair by 10 Column	Left	No Code Key	
	75465-21XX			Code Key "X"	
	75465-410X	4 Pair by 10 Column	Right	No Code Key	
	75465-41XX			Code Key "X"	
275	75465-220X	4 Pair by 25 Column	Left	No Code Key	
	75465-22XX			Code Key "X"	
	75465-420X	4 Pair by 25 Column	Right	No Code Key	
	75465-42XX			Code Key "X"	

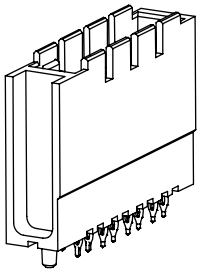
The "X" in the second to last position of the Molex part number is replaced by a digit to define the keying position. There are 8 different keying positions available: A = 1, B = 2, C = 3, D = 4, E = 5, F = 6, G = 7, H = 8
The last digit in the Molex part number sequence defines the length of the signal pin.

3 = 3.55mm (.140")	Contact Wipe = 1.00mm (.039")
4 = 4.55mm (.179")	Contact Wipe = 2.00mm (.079")
5 = 5.55mm (.219")	Contact Wipe = 3.00mm (.118")

Custom pinouts available, please contact Molex
Note: GbX is a registered trademark of Amphenol Corporation

1.85mm (.073") Pitch GbX® Board-to-Board Backplane Power Header

75492/75331/75341/75510
Vertical



Features and Benefits
- Dual beam independent contacts ensure reliable connection
- Power blade pairs available in 3 lengths for sequential mating or hot swap applications

Reference Information
Product Specification: PS-75221-999
Packaging: Tube
UL File No.: E29179
Mates With: GbX Daughtercards
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 6.0A per blade
Contact Resistance: 1 milliohm max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force to PCB: 45N max. per press-fit pin
Contact Retention Force: 9N min. per press-fit pin
Mating Force: .6N per circuit
Unmating Force: .3N per circuit
Normal Force: 40g min.
Durability: 200 cycles

Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact—50µ" Gold
Tail—Tin/Lead
PCB Thickness: 1.60mm (.063") min.

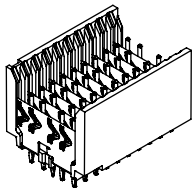
Circuits	Order No.	Description	Lead-free
4	75492-10XX	2 Pair Power	RoHS compliant by exemption
6	75331-0XXX	3 Pair Power	
8	75341-XXXX	4 Pair Power	
10	7551X-XXXX	5 Pair Power	

The last digits in the Molex part number sequence defines the wipe length of the power contacts in their respective row positions.
0 = Void
4 = 4.55mm (.179")
6 = 6.00mm (.236")
7 = 7.55mm (.297")

Note: GbX is a registered trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM-HSD™ Board-to-Board Backplane Header

74695
Vertical 5-Row Open Signal Module



Features and Benefits
- 10 and 25 column versions available
- Stackable end-to-end
- Ground planes between signal columns
- Press-fit construction
- High-temperature plastic housing are Surface Mount Compatible

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 74670
Use With: Daughtercard modules
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: See 74670
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9.00N per press-fit pin
Insertion Force to PCB: 45.00N per press-fit pin
Mating Force: .040N per press-fit pin
Unmating Force: 1.50N per press-fit pin
Normal Force: 0.50N per press-fit pin
Durability: 200 cycles

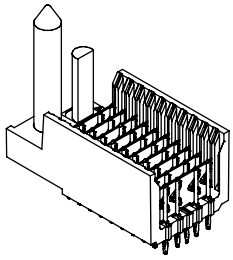
Physical
Housing: LCP Liquid Crystal Polymer
Contact: Tin/lead
Plating: Contact Area—Copper Alloy
PCB Thickness: 1.80mm (.071") min.

Order No. 30µ" Gold	Pin Length	Lead-free
74695-1001	4.75mm (.187")	RoHS compliant by exemption
74695-1002	6.25mm (.246")	
74695-1003	4.25mm (.167")	
74695-1004	5.15mm (.203")	
74695-2501	4.75mm (.187")	
74695-2502	6.25mm (.246")	
74695-2503	4.25mm (.167")	
74695-2504	5.15mm (.203")	

Note: VHDM-HSD™ is a trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM-HSD™ Board-to-Board Backplane Header

74696
Vertical 5-Row Guide Pin Signal Module Pin End Version



Features and Benefits
- 10 and 25 column versions available
- Metal guide pin integrated into the header body
- Coding Key provides 8 different codes (A through H)
- Stackable end-to-end
- Ground planes between signal columns
- Press-fit construction
- High-temperature plastic housings are Surface Mount Compatible

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 74670
Use With: Daughtercard modules
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: See 74670
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9.00N per press-fit pin
Insertion Force to PCB: 45.00N per press-fit pin
Mating Force: .040N per press-fit pin
Unmating Force: 1.50N per press-fit pin
Normal Force: 0.50N per press-fit pin
Durability: 200 cycles

Physical
Housing: LCP Liquid Crystal Polymer
Contact: Tin/lead
Plating: Contact Area—Copper Alloy
PCB Thickness: 1.80mm (.071") min.

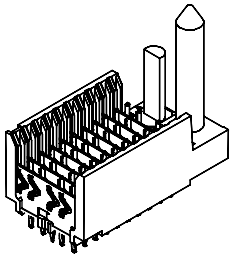
Circuits	Order No.	Pin Length	Code Key	Lead-free
40	74696-1001	4.75mm (.187")	no code key	RoHS compliant by exemption
	74696-1012	6.25mm (.246")	code key A	
	74696-1013	4.25mm (.167")		
	74696-1014	5.15mm (.203")		
100	74696-2501	4.75mm (.187")	no code key	
	74696-2512	6.25mm (.246")	code key A	
	74696-2513	4.25mm (.167")		
	74696-2514	5.15mm (.203")		

Other codes are available, visit www.molex.com
Note: VHDM-HSD™ is a trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM-HSD™ Board-to-Board Backplane Header

74697

Vertical
5-Row Guide Pin Signal Module
Shield Version



Features and Benefits
- 10 and 25 column versions available
- Metal guide pin integrated into the header body
- Coding Key provides 8 different codes (A through H)
- Stackable end-to-end
- Ground planes between signal columns
- Press-fit construction
- High-temperature plastic housings are Surface Mount Compatible

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 74670
Use With: Daughtercard modules
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: See 74670
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9.00N per press-fit pin
Insertion Force to PCB: 45.00N per press-fit pin
Mating Force: .040N per press-fit pin
Unmating Force: 1.50N per press-fit pin
Normal Force: 0.50N per press-fit pin
Durability: 200 cycles

Physical
Housing: LCP Liquid Crystal Polymer
Contact: Tin/lead
Plating: Contact Area—Copper Alloy
PCB Thickness: 1.80mm (.071") min.

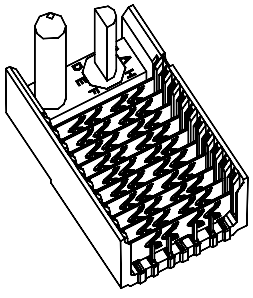
Circuits	Order No.	Pin Length	Code Key	Lead-free
40	74697-1001	4.75mm (.187")	no code key	RoHS compliant by exemption
	74697-1012	6.25mm (.246")	code key A	
	74697-1013	4.25mm (.167")		
	74697-1014	5.15mm (.203")		
100	74697-2501	4.75mm (.187")	no code key	
	74697-2512	6.25mm (.246")	code key A	
	74697-2513	4.25mm (.167")		
	74697-2514	5.15mm (.203")		

Other codes are available, visit www.molex.com
Note: VHDM-HSD™ is a trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM-HSD™ Board-to-Board Backplane Header

74980

Vertical
6-Row Guide Pin Signal Module
Pin End Version



Features and Benefits
- 10 and 25 column versions available
- Metal guide pin integrated into the header body
- Coding Key provides 8 different codes (A through H)
- Stackable end-to-end
- Ground planes between signal columns
- Press-fit construction
- High-temperature plastic housings are Surface Mount Compatible

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 74880
Use With: Daughtercard modules
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: See 74880
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9.00N per press-fit pin
Insertion Force to PCB: 45.00N per press-fit pin
Mating Force: .040N per press-fit pin
Unmating Force: 1.50N per press-fit pin
Normal Force: 0.50N per press-fit pin
Durability: 200 cycles

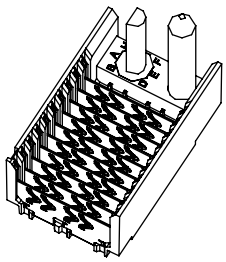
Physical
Housing: LCP Liquid Crystal Polymer
Contact: Tin/lead
Plating: Contact Area—Copper Alloy
PCB Thickness: 1.80mm (.071") min.

Circuits	Order No.	Pin Length	Code Key	Lead-free
40	74980-1001	4.75mm (.187")	no code key	RoHS compliant by exemption
	74980-1012	6.25mm (.246")	code key A	
	74980-1013	4.25mm (.167")		
	74980-1014	5.15mm (.203")		
100	74980-2501	4.75mm (.187")	no code key	
	74980-2512	6.25mm (.246")	code key A	
	74980-2513	4.25mm (.167")		
	74980-2514	5.15mm (.203")		

Other codes are available, visit www.molex.com
Note: VHDM-HSD™ is a trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM-HSD™ Board-to-Board Backplane Header

74981
Vertical
6-Row Guide Pin Signal Module
Shield End Version



Features and Benefits
- 10 and 25 column versions available
- Metal guide pin integrated into the header body
- Coding Key provides 8 different codes (A through H)
- Stackable end-to-end
- Ground planes between signal columns
- Press-fit construction
- High-temperature plastic housings are Surface Mount Compatible

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 74880
Use With: Daughtercard modules
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: See 74880
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9.00N per press-fit pin
Insertion Force to PCB: 45.00N per press-fit pin
Mating Force: .040N per press-fit pin
Unmating Force: 1.50N per press-fit pin
Normal Force: 0.50N per press-fit pin
Durability: 200 cycles

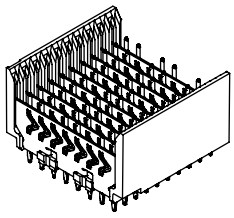
Physical
Housing: LCP Liquid Crystal Polymer
Contact: Tin/lead
Plating: Contact Area—Copper Alloy
PCB Thickness: 1.80mm (.071") min.

Circuits	Order No.	Pin Length	Code Key	Lead-free
40	74981-1001	4.75mm (.187")	no code key	RoHS compliant by exemption
	74981-1012	6.25mm (.246")	code key A	
	74981-1013	4.25mm (.167")		
	74981-1014	5.15mm (.203")		
100	74981-2501	4.75mm (.187")	no code key	
	74981-2512	6.25mm (.246")	code key A	
	74981-2513	4.25mm (.167")		
	74981-2514	5.15mm (.203")		

Other codes are available, visit www.molex.com
Note: VHDM-HSD™ is a trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM-HSD™ Board-to-Board Backplane Header

74649
Vertical
8-Row Open Signal Module



Features and Benefits
- 10 and 25 column versions available
- Stackable end-to-end
- Ground planes between signal columns
- Press-fit construction
- High-temperature plastic housings are Surface Mount Compatible

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 74680 and 74686
Use With: Daughtercard modules
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: See 74680
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9.00N per press-fit pin
Insertion Force to PCB: 45.00N per press-fit pin
Mating Force: .040N per press-fit pin
Unmating Force: 1.50N per press-fit pin
Normal Force: 0.50N per press-fit pin
Durability: 200 cycles

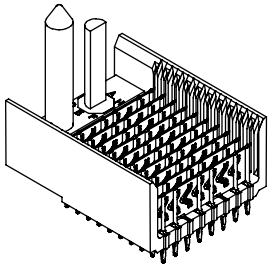
Physical
Housing: LCP Liquid Crystal Polymer
Contact: Tin/lead
Plating: Contact Area—Copper Alloy
PCB Thickness: 1.80mm (.071") min.

Order No. 30µ" Gold	Pin Length	Lead-free
74649-1001	4.75mm (.187")	RoHS compliant by exemption
74649-1002	6.25mm (.246")	
74649-1003	4.25mm (.167")	
74649-1004	5.15mm (.203")	
74649-2501	4.75mm (.187")	
74649-2502	6.25mm (.246")	
74649-2503	4.25mm (.167")	
74649-2504	5.15mm (.203")	

Note: VHDM-HSD™ is a trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM-HSD™ Board-to-Board Backplane Header

74650
Vertical 8-Row Guide Pin Signal Module Pin End Version



Features and Benefits
- 10 and 25 column versions available
- Metal guide pin integrated into the header body
- Coding Key provides 8 different codes (A through H)
- Stackable end-to-end
- Ground planes between signal columns
- Press-fit construction
- High-temperature plastic housings are Surface Mount Compatible

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 74680
Use With: Daughtercard modules
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: See 74680
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9.00N per press-fit pin
Insertion Force to PCB: 45.00N per press-fit pin
Mating Force: .040N per press-fit pin
Unmating Force: 1.50N per press-fit pin
Normal Force: 0.50N per press-fit pin
Durability: 200 cycles

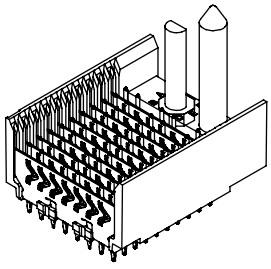
Physical
Housing: LCP Liquid Crystal Polymer
Contact: Tin/lead
Plating: Contact Area—Copper Alloy
PCB Thickness: 1.80mm (.071") min.

Circuits	Order No.	Pin Length	Code Key	Lead-free
40	74650-1001	4.75mm (.187")	no code key	RoHS compliant by exemption
	74650-1012	6.25mm (.246")	code key A	
	74650-1013	4.25mm (.167")		
	74650-1014	5.15mm (.203")		
100	74650-2501	4.75mm (.187")	no code key	
	74650-2512	6.25mm (.246")	code key A	
	74650-2513	4.25mm (.167")		
	74650-2514	5.15mm (.203")		

Other codes are available, visit www.molex.com
Note: VHDM-HSD™ is a trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM-HSD™ Board-to-Board Backplane Header

74651
Vertical 8-Row Guide Pin Signal Module Shielded Version



Features and Benefits
- 10 and 25 column versions available
- Metal guide pin integrated into the header body
- Coding Key provides 8 different codes (A through H)
- Stackable end-to-end
- Ground planes between signal columns
- Press-fit construction
- High-temperature plastic housing are Surface Mount Compatible

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 74680
Use With: Daughtercard modules
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: See 74680
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9.00N per press-fit pin
Insertion Force to PCB: 45.00N per press-fit pin
Mating Force: .040N per press-fit pin
Unmating Force: 1.50N per press-fit pin
Normal Force: 0.50N per press-fit pin
Durability: 200 cycles

Physical
Housing: LCP Liquid Crystal Polymer
Contact: Tin/lead
Plating: Contact Area—Copper Alloy
PCB Thickness: 1.80mm (.071") min.

Circuits	Order No.	Pin Length	Code Key	Lead-free
40	74651-1001	4.75mm (.187")	no code key	RoHS compliant by exemption
	74651-1012	6.25mm (.246")	code key A	
	74651-1013	4.25mm (.167")		
	74651-1014	5.15mm (.203")		
100	74651-2501	4.75mm (.187")	no code key	
	74651-2512	6.25mm (.246")	code key A	
	74651-2513	4.25mm (.167")		
	74651-2514	5.15mm (.203")		

Other codes are available, visit www.molex.com
Note: VHDM-HSD™ is a trademark of Amphenol Corporation

2.00 by 2.25mm (.079 by .089") Pitch VHDM® Module-to-Backplane Connector

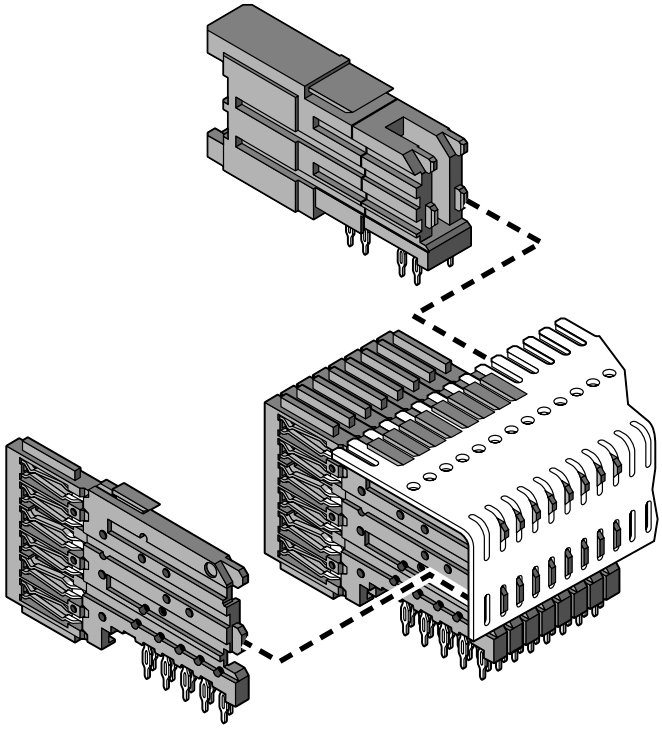
The Very High Density Metric (VHDM) connector system is designed for applications that require very high interconnect density and high-speed signal integrity. The modularity of the signal portion of the connector is in increments of 10 columns and 25 columns in either 6 rows or 8 rows. The daughtercard connector consists of a metal stiffener that combines signal wafers, power modules and guidance modules to make one continuous connector that can be ordered with one custom part number. The maximum length of a single stiffener is 300.00mm (~12.00"). The power contacts can handle 10.0A of current per blade, efficiently delivering up to 120 amps per 25.00mm (.984") of board edge with multiple mating levels for hot plug applications.

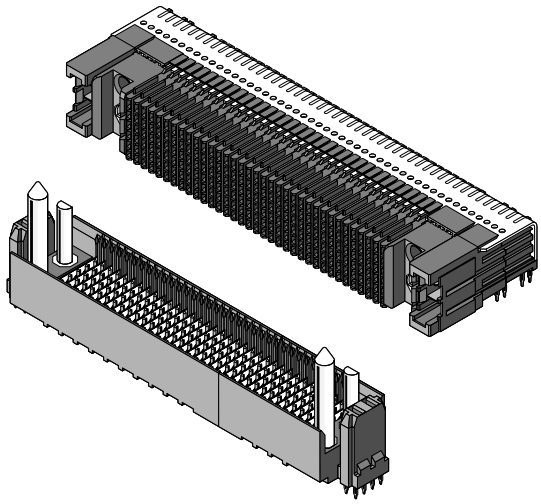
Metal guide pins and metallic coding bushings provide excellent guidance for large cards and eliminate the possibility of plugging a card into the wrong slot.

The modularity and design flexibility allows engineers to adapt quickly to changing design requirements for future system upgrades without changing systems.

Features and Benefits

- 2.00mm (.079") by 6 row connectors provide 30 contacts per centimeter
- 2.00mm (.079") by 8 row connectors provide 40 contacts per centimeter
- Wafer construction permits very accurate location of ground planes relative to the signal contacts for improved impedance control
- Press-fit right angle receptacles allow tight spacing without solder bridging between contact tails
- Ground planes between signal columns provide:
  - Tightly controlled impedance for rise times down to 200 picoseconds
  - Very low cross talk between signals within a column
  - Extremely low cross talk between signal columns
- Mix-and-match signal, power and guidance to optimize the connector for the application
- Multiple sourced connector (available from Molex and from Amphenol Corporation) ensures intermateability and interchangeability
- Power module with 10.0A blades can carry up to 120A per 25mm (.984") for high current requirements
- Eye of the needle press-fit tails on both the backplane header and the daughtercard receptacles allow repairability and a highly reliable termination to the PCB
- 50 ohms impedance
- Low insertion force (0.40N nominal per contact) allows very high pin counts with reasonable mating forces (~ 58N per 25.00mm (.984") or 13 lb per inch of connector length for the 8 row)
- Dual beam contacts for redundancy
- Contacts preloaded in the housing to prevent stubbing and reduce insertion force
- Tin/Lead compliant zones very suitable for use with bare copper or Gold plated printed circuit boards (PCBs)
- Meets Bellcore GR-1217-CORE Requirements
- Strong integrated metal guide pins provide a wide capture range (±1.67mm (.065")) and protect the connector from damage during mating
- Metallic stiffener provides a board straightening action to avoid damage of the mating connectors and more accurate true position of the mating halves
- Robust metal coding features assure that the board cannot be plugged into the wrong slot

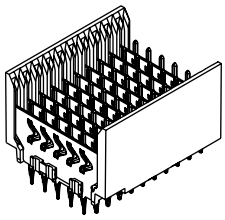




Note: VHDM® is a registered trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Board-to-Board Backplane Header

74057
Vertical
6 Row Open Signal Module



Features and Benefits
- 10 column and 25 column versions available
- Stackable end to end for high density
- Ground planes between signal columns control impedance and reduce cross talk
- Press-fit construction eliminates solder defects and allows use of thicker PCBs without worrying about solder tail length
- High-temperature plastic housings are Surface Mount Compatible

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: Pending
CSA File No.: Pending
Mates With: 74030 receptacles (composed of 74031 wafers)
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9N min. per press-fit pin
Mating Force: 0.40N nominal per press-fit pin
Unmating Force: 0.15N min. per press-fit pin
Signal Normal Force: 0.5N min.
Durability: 200 cycles

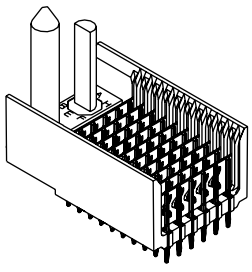
Physical
Housing: Liquid crystal polymer UL, 94V-0
Contact: Copper Alloy
Plating: Selective Gold 30µ" min. with Tin/Lead on the tails

Circuits	Order No.	Termination	Lead-free
60	74057-1001	Press-Fit	RoHS compliant by exemption
	74057-1002		
150	74057-2501		
	74057-2502		

Note: VHDM is a registered trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Board-to-Board Backplane Header

74058
Vertical
6 Row Guide Pin Signal Module, Pin End Version



Features and Benefits
- Metal guide pin provides for ±1.65mm (.065") of mating capture
- Guide pin integrated into the header body (no other hardware needed)
- Coding hex key provides 8 different codes
- 10 column and 25 column versions available
- Stackable end to end for high density
- Ground planes between signal columns control impedance and reduce cross talk
- Press-fit construction eliminates solder defects and allows use of thicker PCBs without worrying about solder tail length
- High-temperature plastic housings are Surface Mount Compatible

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: Pending
CSA File No.: Pending
Mates With: 74030 receptacles (including 74031 wafers and 74037 guidance module)
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9N min. per press-fit pin
Mating Force: 0.40N nominal per press-fit pin
Unmating Force: 0.15N min. per press-fit pin
Signal Normal Force: 0.5N min.
Durability: 200 cycles

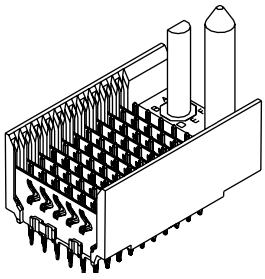
Physical
Housing: Liquid crystal polymer, UL 94V-0
Contact: Copper Alloy
Plating: Selective Gold 30µ" min. with Tin/Lead on the tails

Circuits	Order No.			Termination	Lead-free
	No Code	Code A	Code B		
60	74058-1001	74058-1011	74058-1021	Press-Fit	RoHS compliant by exemption
	74058-1002	74058-1012	74058-1022		
150	74058-2501	74058-2511	74058-2521		
	74058-2502	74058-2512	74058-2522		

Note: Other codes are available. Please contact Molex for more information.
Note: VHDM is a registered trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Board-to-Board Backplane Header

74059
Vertical
6 Row Guide Pin Signal Module Shield End Version



Features and Benefits
- Metal guide pin provides for ±1.65mm (.065") of mating capture
- Guide pin integrated into the header body (No other hardware needed)
- Coding hex key provides 8 different codes
- 10 column and 25 column versions available
- Stackable end to end for high density
- Ground planes between signal columns control impedance and reduce cross talk
- Press-fit construction eliminates solder defects and allows use of thicker PCBs without worrying about solder tail length
- High-temperature plastic housings are Surface Mount Compatible

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: Pending
CSA File No.: Pending
Mates With: 74030 receptacles (including 74031 wafers and 74037 guidance module)
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9N min. per press-fit pin
Mating Force: 0.40N nominal per press-fit pin
Unmating Force: 0.15N min. per press-fit pin
Signal Normal Force: 0.5N min.
Durability: 200 cycles

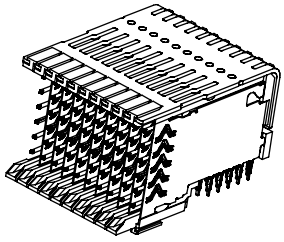
Physical
Housing: Liquid crystal polymer, UL 94V-0
Contact: Copper Alloy
Plating: Selective Gold 30µ" min. with Tin/Lead on the tails

Circuits	Order No.			Termination	Lead-free
	No Code	Code A	Code B		
60	74059-1001	74059-1011	74059-1021	Press-Fit	RoHS compliant by exemption
	74059-1002	74059-1012	74059-1022		
150	74059-2501	74059-2511	74059-2521		
	74059-2502	74059-2512	74059-2522		

Note: Other codes are available. Please contact Molex for more information.
Note: VHDM is a registered trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Board-to-Board Custom Connector

74600
6 Row, Right Angle, Male



Features and Benefits
- Designed to meet the needs of coplanar board-to-board applications
- Any multiple of signal, power and guidance modules can be arranged on a length of stiffener
- Mates to 6 row VHDM daughtercards
- Maximum length is 300.00mm (11.811")

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: 152514
Mates With: 74030
Use With: Daughtercards
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 9.2 milliohms max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9N min. per press-fit pin
Mating Force: 0.40N nominal per pin
Unmating Force: 0.15N min. per press-fit pin
Signal Normal Force: 0.5N min.
Durability: 200 cycles

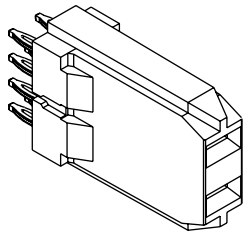
Physical
Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Copper Alloy
Tail—Tin/Lead
PCB Thickness: 1.80mm (.071") min.

RoHS compliant by exemption
Note: VHDM® is a registered trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Board-to-Board Backplane Power Module

74029

Vertical, 6 Row 2 Circuit Power Receptacle



Features and Benefits

- 2 contacts per module
- 10.0A per contact
- Receptacle on backplane prevents touching a high current contact
- Module only 6.00mm (.236") wide allows 4 modules per 25.00mm (.984") for 80.0A per 25.00mm (.984")
- Press-fit for ease of installation and repair

Reference Information

Product Specification: PS-74031-999
Packaging: Tube
UL File No.: Pending
CSA File No.: Pending
Mates With: 74026 power module as part of a 74030 daughtercard assembly
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 10.0A
Contact Resistance: 3 milliohms max.
Dielectric Withstanding Voltage:1500V
Insulation Resistance: 10,000 Megohms min.

Mechanical

Insertion Force: 45N max. per press-fit pin
Retention Force: 22N min. per press-fit pin
Mating Force: 4.0N max. per pin
Power Normal Force: 1.0N min.
Durability: 200 cycles

Physical

Housing: Liquid crystal polymer, UL 94V-0
Contact: Copper Alloy
Plating: Selective Gold 30µ" min. with Tin/Lead on the tails

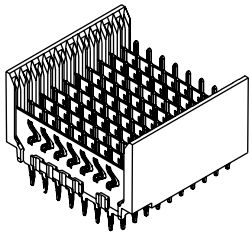
Module	Order No.	Termination	Finish	Lead-free
2 Circuit Power Module	74029-6000	Press-Fit	Gold	RoHS compliant by exemption

Note: VHDM is a registered trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Board-to-Board Backplane Header

74060

Vertical 8 Row Open Signal Module



Features and Benefits

- 10 column and 25 column versions available
- Stackable end to end for high density
- Ground planes between signal columns control impedance and reduce cross talk
- Press-fit construction eliminates solder defects and allows use of thicker PCBs without worrying about solder tail length
- High-temperature plastic housings are Surface Mount Compatible

Reference Information

Product Specification: PS-74031-999
Packaging: Tube
UL File No.: Pending
CSA File No.: Pending
Mates With: 74040 receptacles (composed of 74041 wafers)
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 1.0A
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical

Insertion Force: 45N max. per press-fit pin
Retention Force: 9N min. per shield pin, 22N per signal pin
Mating Force: 0.40N nominal per press-fit pin
Unmating Force: 0.15N min. per press-fit pin
Signal Normal Force: 0.5N min.
Durability: 200 cycles

Physical

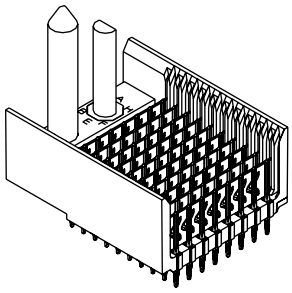
Housing: Liquid crystal polymer, UL 94V-0
Contact: Copper Alloy
Plating: Selective Gold 30µ" min. with Tin/Lead on the tails

Circuits	Order No.	Termination	Lead-free
80	74060-1001	Press-Fit	RoHS compliant by exemption
	74060-1002		
200	74060-2501		
	74060-2502		

Note: VHDM is a registered trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Board-to-Board Backplane Header

74061
Vertical
8 Row Guide Pin Signal Module, Pin End Version



Features and Benefits
- Metal guide pin provides for ±1.67mm (.065") of mating capture
- Guide pin integrated into the header body (no other hardware needed)
- Coding hex key provides 8 different codes
- 10 column and 25 column versions available
- Stackable end to end for high density
- Ground planes between signal columns control impedance and reduce cross talk
- Press-fit construction eliminates solder defects and allows use of thicker PCBs without worrying about solder tail length
- High-temperature plastic housings are Surface Mount Compatible

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: Pending
CSA File No.: Pending
Mates With: 74040 receptacles (including 74041 wafers and 74037 guidance module)
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9N min. per press-fit pin
Mating Force: 0.40N nominal per press-fit pin
Unmating Force: 0.15N min. per press-fit pin
Signal Normal Force: 0.5N min.
Durability: 200 cycles

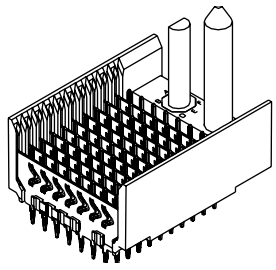
Physical
Housing: Liquid crystal polymer, UL 94V-0
Contact: Copper Alloy
Plating: Selective Gold 30µ" min. with Tin/Lead on the tails

Circuits	Order No.			Termination	Lead-free
	No Code	Code A	Code B		
80	74061-1001	74061-1011	74061-1021	Press-Fit	RoHS compliant by exemption
	74061-1002	74061-1012	74061-1022		
200	74061-2501	74061-2511	74061-2521		
	74061-2502	74061-2512	74061-2522		

Note: Other codes are available. Please contact Molex for more information.
Note: VHDM is a registered trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Board-to-Board Backplane Header

74062
Vertical
8 Row Guide Pin Signal Module, Shield End Version



Features and Benefits
- Metal guide pin provides for ±1.67mm (.065") of mating capture
- Guide pin integrated into the header body (no other hardware needed)
- Coding hex key provides 8 different codes
- 10 column and 25 column versions available
- Stackable end to end for high density
- Ground planes between signal columns control impedance and reduce cross talk
- Press-fit construction eliminates solder defects and allows use of thicker PCBs without worrying about solder tail length
- High-temperature plastic housings are Surface Mount Compatible

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: Pending
CSA File No.: Pending
Mates With: 74040 receptacles (including 74041 wafers and 74037 guidance module)
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9N min. per press-fit pin
Mating Force: 0.40N nominal per press-fit pin
Unmating Force: 0.15N min. per press-fit pin
Signal Normal Force: 0.5N min.
Durability: 200 cycles

Physical
Housing: Liquid crystal polymer UL 94V-0
Contact: Copper Alloy
Plating: Selective Gold 30µ" min. with Tin/Lead on the tails

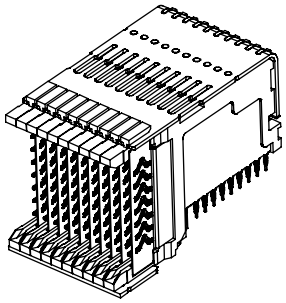
Circuits	Order No.			Termination	Lead-free
	No Code	Code A	Code B		
80	74062-1001	74062-1011	74062-1021	Press-Fit	RoHS compliant by exemption
	74062-1002	74062-1012	74062-1022		
200	74062-2501	74062-2511	74062-2521		
	74062-2502	74062-2512	74062-2522		

Note: Other codes are available. Please contact Molex for more information.
Note: VHDM is a registered trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Board-to-Board Custom Connector

75165

8 Row, Right Angle, Male



RoHS compliant by exemption
Note: VHDM® is a registered trademark of Amphenol Corporation

Features and Benefits

- Designed to meet the needs of coplanar board-to-board applications
- Any multiple of signals, power and guidance modules can be arranged on a length of stiffener
- Mates to 8 row VHDM daughtercards
- Maximum length is 300.00mm (11.811")

Reference Information

Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: 152514
Mates With: 74040
Use With: Daughtercards
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 1.0A
Contact Resistance: 9.2 milliohms max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical

Insertion Force: 45N max. per press-fit pin
Retention Force: 9N min. per press-fit pin
Mating Force: 0.40N nominal per pin
Unmating Force: 0.15N min. per press-fit pin
Signal Normal Force: 0.5N min.
Durability: 200 cycles

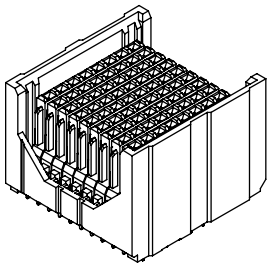
Physical

Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Copper Alloy
Tail—Tin/Lead
PCB Thickness: 1.80mm (.071") min.

2.00mm (.079") Pitch VHDM® Board-to-Board Stacking Connector

75117

8 Row



Features and Benefits

- Mezzanine-style connector offering 100 real circuits per square inch
- Mates with standard VHDM 8-row backplane modules
- Available in circuit sizes up to 400 pins with a stack height of 18.00mm (.709")

Reference Information

Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 74060
Use With: Backplane modules
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 1.0A
Contact Resistance: 7 milliohms max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical

Contact Insertion Force: 45N max. per press fit pin
Retention force: 9.00N per press-fit pin
Insertion Force to PCB: 45.00N per press-fit pin
Mating Force: .040N per press-fit pin
Unmating Force: 1.50N per press-fit pin
Normal Force: 0.50N per press-fit pin
Durability: 200 cycles

Physical

Housing: LCP Liquid Crystal Polymer
Contact: Tin/lead
Plating: Contact Area—Copper Alloy
PCB Thickness: 1.80mm (.071") min.

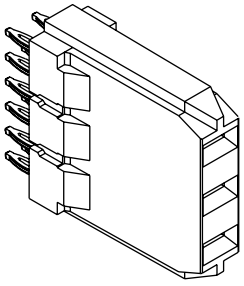
Circuits	Order No.		Lead-free
	Plating		
	0.76µm (30µ") Gold	1.3µm (50µ") Gold	
200	75117-0218		RoHS compliant by exemption
		75117-1218	
400	75117-0018		
		75117-1018	
80	75117-0118		
		75117-1118	

Note: VHDM® is a registered trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Board-to-Board Backplane Power Module

74029

Vertical, 8 Row 3 Circuit Power Receptacle



Features and Benefits

- 3 contacts per module
- 10.0A per contact
- Receptacle on backplane prevents touching a high current contact
- Module only 6.00mm (.23") wide allows 4 modules per 25.00mm (.984") for 120A per 25.00mm (.984")
- Press-fit for ease of installation and repair

Reference Information

Product Specification: PS-74031-999
Packaging: Tube
UL File No.: Pending
CSA File No.: Pending
Mates With: 74026 power module as part of a 74040 daughtercard assembly
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 10.0A
Contact Resistance: 3 milliohms max.
Dielectric Withstanding Voltage:1500V
Insulation Resistance: 10,000 Megohms min.

Mechanical

Insertion Force: 45N max. per press-fit pin
Retention Force: 22N min. per press-fit pin
Mating Force: 4.0N max. per pin
Power Normal Force: 1.0N min.
Durability: 200 cycles

Physical

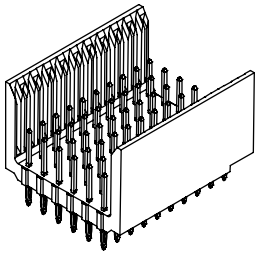
Housing: Liquid crystal polymer, UL 94V-0
Contact: Copper Alloy
Plating: Selective Gold 30µ" min. with Tin/Lead on the tails

Module	Order No.	Termination	Finish	Lead-free
3 Circuit Power Module	74029-8000	Press-Fit	Gold	RoHS compliant by exemption

Note: VHDM is a registered trademark of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Lite Board-to-Board Backplane Header

75194
Vertical 6 Row, Open Signal Module



Features and Benefits
- Open-pin field version of VHDM® system
- Electrical performance up to 1 Gbps
- 10 and 25 columns
- Press-fit construction
- High-temperature plastic housing is Surface Mount Compatible
- Available in the following pin lengths: 4.25, 4.75, 5.15 and 6.25mm (.071, .187, .203 and .246")

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 75189
Use With: Daughtercard modules
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: See 75189
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9.00N per press-fit pin
Insertion Force to PCB: 45.00N per press-fit pin
Mating Force: .040N per press-fit pin
Unmating Force:1.50N per press-fit pin
Normal Force: 0.50N per press-fit pin
Durability: 200 cycles

Physical
Housing: LCP Liquid Crystal Polymer, UL 94V-0
Contact: Tin/Lead
Plating: Contact Area—Copper Alloy
PCB Thickness: 1.80mm (.071") minimum

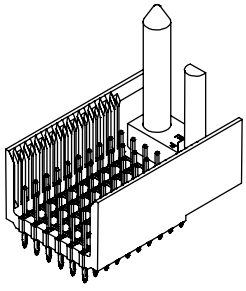
Circuits	Order No.	Pin Length	Plating	Lead-free
60	75194-1001	4.75mm (.187")	0.76µm (30µ") Gold	RoHS compliant by exemption
	75194-1002	6.25mm (.246")		
	75194-1003	4.25mm (.071")		
	75194-1004	5.15mm (.203")		

Circuits	Order No.	Pin Length	Plating	Lead-free
150	75194-2501	4.75mm (.187")	0.76µm (30µ") Gold	RoHS compliant by exemption
	75194-2502	6.25mm (.246")		
	75194-2503	4.25mm (.071")		
	75194-2504	5.15mm (.203")		

Note: VHDM and VHDM Lite are registered trademarks of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Lite Board-to-Board Backplane Header

75195
Vertical, 6 Row Guide Pin Signal Module Pin End Version



Features and Benefits
- Open-pin field version of VHDM® system
- Electrical performance up to 1 Gbps
- Metal guide pin integrated into the header body
- Coding key provides 8 different codes (A through H)
- 10 and 25 columns
- Press-fit construction
- High-temperature plastic housing is Surface Mount Compatible
- Available in the following pin lengths: 4.25, 4.75, 5.15 and 6.25mm (.071, .187, .203 and .246")

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 75189
Use With: Daughtercard modules
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: See 75189
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9.00N per press-fit pin
Insertion Force to PCB: 45.00N per press-fit pin
Mating Force: .040N per press-fit pin
Unmating Force: 1.50N per press-fit pin
Normal Force: 0.50N per press-fit pin
Durability: 200 cycles

Physical
Housing: LCP Liquid Crystal Polymer, UL 94V-0
Contact: Tin/Lead
Plating: Contact Area—Copper Alloy
PCB Thickness: 1.80mm (.071") min.

Circuits	Order No.	Pin Length	Code Key	Lead-free
60	75195-1001	4.75mm (.187")	no code key	RoHS compliant by exemption
	75195-1012	6.25mm (.246")	code key A	
	75195-1013	4.25mm (.071")		
	75195-1014	5.15mm (.203")		

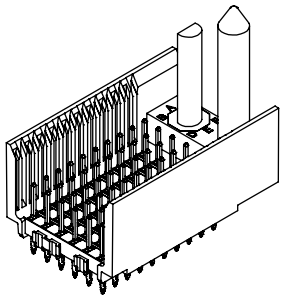
Circuits	Order No.	Pin Length	Code Key	Lead-free
150	75195-2502	4.75mm (.187")	no code key	RoHS compliant by exemption
	75195-2512	6.25mm (.246")	code key A	
	75195-2513	4.25mm (.071")		
	75195-2514	5.15mm (.203")		

Note: VHDM and VHDM Lite are registered trademarks of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Lite Board-to-Board Backplane Header

75196

Vertical, 6 Row Guide Pin Signal Module Shield End Version



Features and Benefits

- Open-pin field version of VHDM® system
- Electrical performance up to 1 Gbps
- Metal guide pin integrated into the header body
- Coding key provides 8 different codes (A through H)
- 10 and 25 columns
- Press-fit construction
- High-temperature plastic housing is Surface Mount Compatible
- Available in the following pin lengths: 4.25, 4.75, 5.15 and 6.25mm (.071, .187, .203 and .246")

Reference Information

Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 75189
Use With: Daughtercard modules
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 1.0A
Contact Resistance: See 75189
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical

Insertion Force: 45N max. per press-fit pin
Retention Force: 9.00N per press-fit pin
Insertion Force to PCB: 45.00N per press-fit pin
Mating Force: .040N per press-fit pin
Unmating Force: 1.50N per press-fit pin
Normal Force: 0.50N per press-fit pin
Durability: 200 cycles

Physical

Housing: LCP Liquid Crystal Polymer, UL 94V-0
Contact: Tin/Lead
Plating: Contact Area—Copper Alloy
PCB Thickness: 1.80mm (.071") min.

Circuits	Order No.	Pin Length	Code Key	Lead-free
60	75196-1001	4.75mm (.187")	no code key	RoHS compliant by exemption
	75196-1012	6.25mm (.246")	code key A	
	75196-1013	4.25mm (.071")		
	75196-1014	5.15mm (.203")		

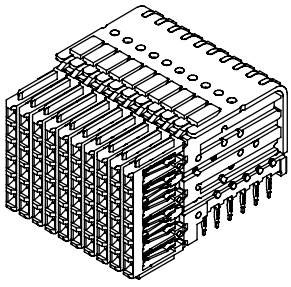
Circuits	Order No.	Pin Length	Code Key	Lead-free
150	75196-2502	4.75mm (.187")	no code key	RoHS compliant by exemption
	75196-2512	6.25mm (.246")	code key A	
	75196-2513	4.25mm (.071")		
	75196-2514	5.15mm (.203")		

Note: VHDM and VHDM Lite are registered trademarks of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Lite Board-to-Board Custom Daughtercard Receptacle

74030

Right Angle 6 Row, Signal Module



Features and Benefits

- Wafers aggregated into connectors receive a custom order number, 74030-XXXX
- Open-pin field version of VHDM® system
- Electrical performance up to 1 Gbps
- VHDM®, VHDM-HSD™ and VHDM Lite wafers can be used on the same stiffener
- 10 and 25 columns
- Press-fit construction
- High-temperature plastic housing is Surface Mount Compatible

Reference Information

Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 75194, 75195 and 75196
Use With: Backplane modules
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 1.0A
Contact Resistance: 10.8 milliohms max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical

Insertion Force: 45N max. per press-fit pin
Retention Force: 9N min. per press-fit pin
Mating Force: 0.40N nominal per pin
Unmating Force: 0.15N min. per press-fit pin
Signal Normal Force: 0.5N min.
Durability: 200 cycles

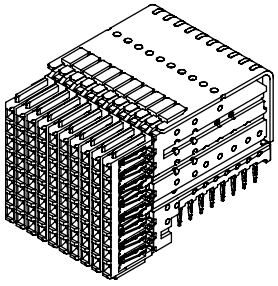
Physical

Housing: LCP Liquid Crystal Polymer, UL 94V-0
Contact: Tin/Lead
Plating: Contact Area—Copper Alloy
PCB Thickness: 1.80mm (.071") min.

RoHS compliant by exemption
Note: VHDM, VHDM-HSD and VHDM Lite are trademarks or registered trademarks of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Lite Board-to-Board Custom Daughtercard Receptacle

75191
Right Angle
8 Row, Signal Module



Features and Benefits
- Wafers aggregated into connectors receive a custom order number, 75194-XXXX
- Open-pin field version of VHDM® system
- Electrical performance up to 1 Gbps
- VHDM®, VHDM-HSD™ and VHDM Lite wafers can be used on the same stiffener
- 10 and 25 columns
- Press-fit construction
- High-temperature plastic housing is Surface Mount Compatible

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 75197, 75195 and 75199
Use With: Backplane modules
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: 14.0 milliohms max.
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

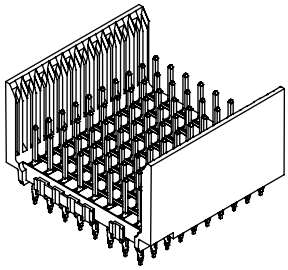
Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9N min. per press-fit pin
Mating Force: 0.40N nominal per pin
Unmating Force: 0.15N min. per press-fit pin
Signal Normal Force: 0.5N min.
Durability: 200 cycles

Physical
Housing: LCP Liquid Crystal Polymer, UL 94V-0
Contact: Tin/Lead
Plating: Contact Area—Copper Alloy
PCB Thickness: 1.80mm (.071") min.

RoHS compliant by exemption
Note: VHDM, VHDM-HSD and VHDM Lite-Series are trademarks or registered trademarks of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Lite Board-to-Board Backplane Header

75197
Vertical, 8 Row
Open Signal Module



Features and Benefits
- Open-pin field version of VHDM® system
- Electrical performance up to 1 Gbps
- 10 and 25 columns
- Press-fit construction
- High-temperature plastic housing is Surface Mount Compatible
- Available in the following pin lengths: 4.25, 4.75, 5.15 and 6.25mm (.071, .187, .203 and .246")

Reference Information
Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 75191
Use With: Daughtercard modules
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 1.0A
Contact Resistance: See 75194
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9.00N per press-fit pin
Insertion Force to PCB: 45.00N per press-fit pin
Mating Force: .040N per press-fit pin
Unmating Force: 1.50N per press-fit pin
Normal Force: 0.50N per press-fit pin
Durability: 200 cycles

Physical
Housing: LCP Liquid Crystal Polymer, UL 94V-0
Contact: Tin/Lead
Mating Area: 0.38µm (30µ") Gold
Plating: Contact Area—Copper Alloy
PCB Thickness: 1.80mm (.071") min.

Circuits	Order No.	Pin Length	Lead-free
80	75197-1001	4.75mm (.187")	RoHS compliant by exemption
	75197-1002	6.25mm (.246")	
	75197-1003	4.25mm (.071")	
	75197-1004	5.15mm (.203")	

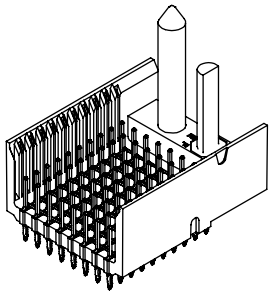
Circuits	Order No.	Pin Length	Lead-free
200	75197-2501	4.75mm (.187")	RoHS compliant by exemption
	75197-2502	6.25mm (.246")	
	75197-2503	4.25mm (.071")	
	75197-2504	5.15mm (.203")	

Note: VHDM and VHDM Lite are registered trademarks of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Lite Board-to-Board Backplane Header

75198

Vertical, 8 Row Guide Pin Signal Module Pin End Version



Features and Benefits

- Open-pin field version of VHDM® system
- Electrical performance up to 1 Gbps
- Metal guide pin integrated into the header body
- Coding key provides 8 different codes (A through H)
- 10 and 25 columns
- Press-fit construction
- High-temperature plastic housing is Surface Mount Compatible
- Available in the following pin lengths: 4.25, 4.75, 5.15 and 6.25mm (.071, .187, .203 and .246")

Reference Information

Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 75191
Use With: Daughtercard modules
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 1.0A
Contact Resistance: See 75194
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical

Insertion Force: 45N max. per press-fit pin
Retention Force: 9.00N per press-fit pin
Insertion Force to PCB: 45.00N per press-fit pin
Mating Force: .040N per press-fit pin
Unmating Force: 1.50N per press-fit pin
Normal Force: 0.50N per press-fit pin
Durability: 200 cycles

Physical

Housing: LCP Liquid Crystal Polymer, UL 94V-0
Contact: Tin/Lead
Plating: Contact Area—Copper Alloy
PCB Thickness: 1.80mm (.071") min.

Circuits	Order No.	Pin Length	Code Key	Lead-free
80	75198-1001	4.75mm (.187")	no code key	RoHS compliant by exemption
	75198-1012	6.25mm (.246")	code key A	
	75198-1013	4.25mm (.071")		
	75198-1014	5.15mm (.203")		

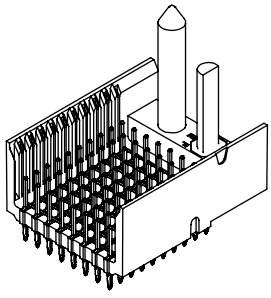
Circuits	Order No.	Pin Length	Code Key	Lead-free
200	75198-2502	4.75mm (.187")	no code key	RoHS compliant by exemption
	75198-2512	6.25mm (.246")	code key A	
	75198-2513	4.25mm (.071")		
	75198-2514	5.15mm (.203")		

Note: VHDM and VHDM Lite are registered trademarks of Amphenol Corporation

2.00mm (.079") Pitch VHDM® Lite Board-to-Board Backplane Header

75199

Vertical, 8 Row Guide Pin Signal Module Shield End Version



Features and Benefits

- Open-pin field version of VHDM® system
- Electrical performance up to 1 Gbps
- Metal guide pin integrated into the header body
- Coding key provides 8 different codes (A through H)
- 10 and 25 columns
- Press-fit construction
- High-temperature plastic housing is Surface Mount Compatible
- Available in the following pin lengths: 4.25, 4.75, 5.15 and 6.25mm (.071, .187, .203 and .246")

Reference Information

Product Specification: PS-74031-999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 75191
Use With: Daughtercard modules
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 1.0A
Contact Resistance: See 75194
Dielectric Withstanding Voltage: 750V
Insulation Resistance: 10,000 Megohms min.

Mechanical

Insertion Force: 45N max. per press-fit pin
Retention Force: 9.00N per press-fit pin
Insertion Force to PCB: 45.00N per press-fit pin
Mating Force: .040N per press-fit pin
Unmating Force: 1.50N per press-fit pin
Normal Force: 0.50N per press-fit pin
Durability: 200 cycles

Physical

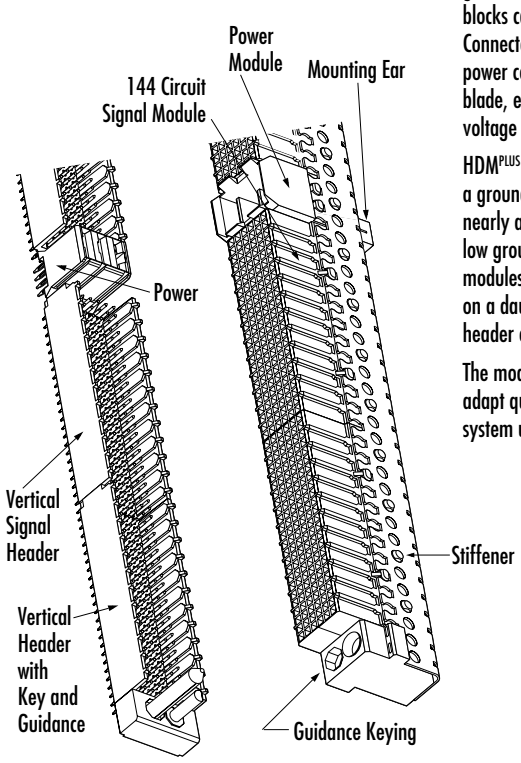
Housing: LCP Liquid Crystal Polymer, UL 94V-0
Contact: Tin/Lead
Plating: Contact Area—Copper Alloy
PCB Thickness: 1.80mm (.071") minimum

Circuits	Order No.	Pin Length	Code Key	Lead-free
80	75199-1001	4.75mm (.187")	no code key	RoHS compliant by exemption
	75199-1012	6.25mm (.246")	code key A	
	75199-1013	4.25mm (.071")		
	75199-1014	5.15mm (.203")		

Circuits	Order No.	Pin Length	Code Key	Lead-free
200	75199-2502	4.75mm (.187")	no code key	RoHS compliant by exemption
	75199-2512	6.25mm (.246")	code key A	
	75199-2513	4.25mm (.071")		
	75199-2514	5.15mm (.203")		

Note: VHDM and VHDM Lite are registered trademarks of Amphenol Corporation

2.00mm (.079") Pitch HDM® and HDM$^{PLUS®}$ Module-to-Backplane Connector



The High Density Metric (HDM) connector system is designed for applications that require high interconnect density and high-speed signal integrity. Signal modules of 72 and 144 contacts are available. Daughtercard modules are combined on a metal stiffener so that they are handled as one connector. Special modules are available for power, guidance, mounting and coding functions. These building blocks can be combined to create very large connectors. Connectors of above 1000 circuits are not unusual. The power contacts can handle 15.0A of current per power blade, efficiently delivering hundreds of watts in multiple voltage levels, even in hot plug applications.

HDM^{PLUS} modules have internal ground contacts that provide a ground reference and isolate contacts from each other nearly all the way through the connector, allowing for either low ground ratios, or subnanosecond rise times. Unshielded modules and shielded modules can be combined as needed on a daughtercard, and will all mate with the same simple header on the backplane.

The modularity and design flexibility allow engineers to adapt quickly to changing design requirements or future system upgrades without changing systems.

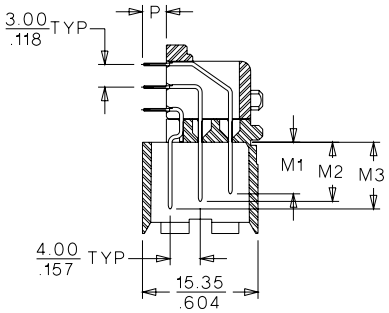
Features and Benefits

- 2mm 6-row connector provides 30 contacts per centimeter
- Designed for high-density/high-speed applications—internal shielding allows subnanosecond rise times with low crosstalk (see HDM^{PLUS})
- Shielded and unshielded modules mate with the same backplane header (low cost on backplane)
- Mix and match signal, power, guidance, shielded modules to optimize the connector to the application
- Multiple sourced connector (available from Molex and Teradyne) assures intermateability and interchangeability
- 45.0A power modules
- Tail lengths available in 0.5mm increments to optimize to PCB thickness
- 50 ohm impedance
- Metric connector in the same form factor as Futurebus
- Very low insertion force (0.35N per contact) allows very high pin counts with reasonable mating forces (~5.5 lb per inch of connector length)
- Both press-fit and solder tail versions available for backplane and daughtercards
- Meets Bellcore requirements

HDM® Design Guide

Power Strategy

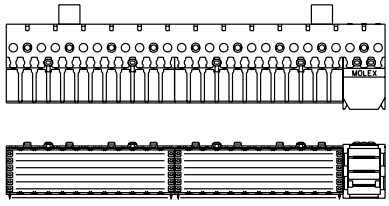
The strategies outlined here will help determine exactly what you need for any HDM® or HDM$^{PLUS®}$ application.



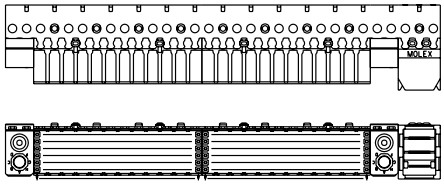
Features and Specifications

- 15 Amperes per Power Blade
- Sequenced Mating for Hot Plug
- 3 levels available
- LMS preferred and is the most popular
  L = First mate, power return
  M = Second mate, precharge capacitors
  S = Third mate, primary voltage level
- Use the following formula to determine the number of power modules needed for current carrying:
  Capacity example—200 Watts at 5V
  Volts x Amps = Watts
  5V x 40.0A = 200 Watts
  40.0A/15.0A = 2.66
  Therefore, 3 power blades are recommended (plus 3 blades for power return)
- Group power modules together or disperse depending on PCB layout

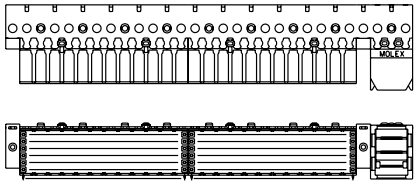
Hold Down Strategy



Mounting ears behind stiffener give maximum interconnect density



Guide blocks accept screws

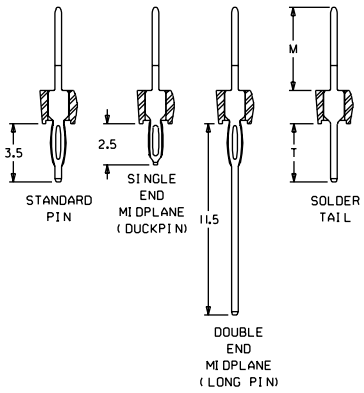


Short end caps accept screws for maximum available PCB real estate

Note: HDM® and HDM$^{PLUS®}$ are registered trademarks of Amphenol Corporation

HDM® Design Guide

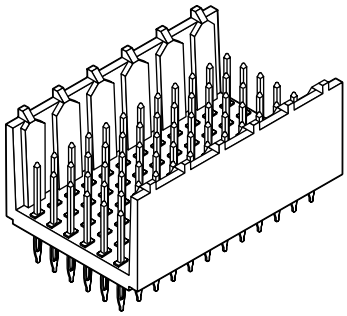
Available Pin Types



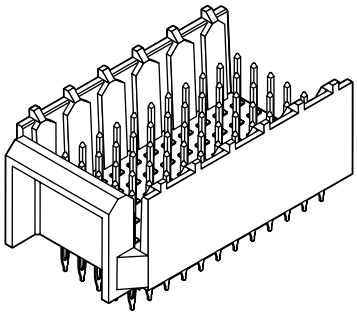
Features and Specifications

- Mating end available in 3 lengths: 5, 5.5 and 6mm
- Solder tails available from 2.0 to 3.5mm in 0.5 increments
- Duckpins permit header insertion into both the front and rear of backplane in the same holes

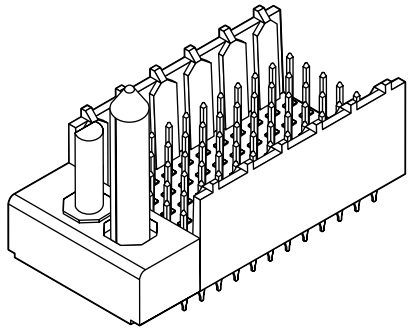
Header Configuration Strategy



Open End Option



Closed End Option

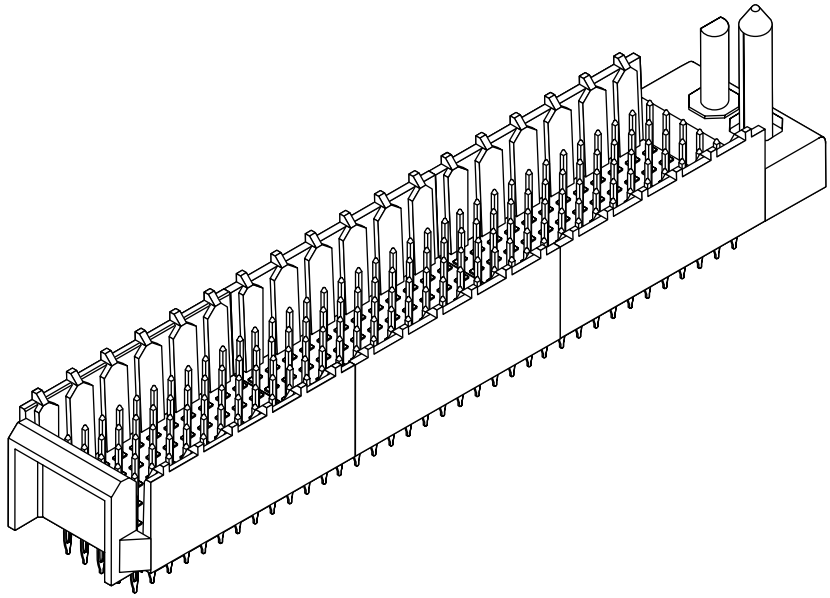


Guide Pin Option

Header Option	Series No.	
	Standard Press-Fit 3.5mm Tail	Solder Tail 2 to 3.5mm Tail
Open	73642	73942
Endwall	73643	73943
Guide Pin	73644	73944

Place together to create one assembly, keeping in mind the following features and recommendations:

- The endwall and standard press-fit options are recommended wherever possible
- The endwall 3 wall box is stronger than the 2 wall box and protects pins
- Use Duckpin press-fit for midplanes thicker than 5mm to press in headers from both sides
- Use solder tail version for motherboards or backplanes thinner than 2.13mm (.084")



Note: HDM® and HDM$^{PLUS®}$ are registered trademarks of Amphenol Corporation

HDM® Design Guide

Midplane Design Strategy

Features and Specifications

For backplanes 3.6 to 4.4mm thick

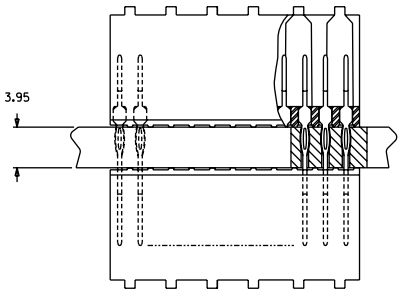
- Long pins from the front and plastic shrouds on the rear offer a good solution
- Rear shrouds can be open, endwall, guide pin or cable connector shrouds

For backplanes thicker than 5mm (.200")

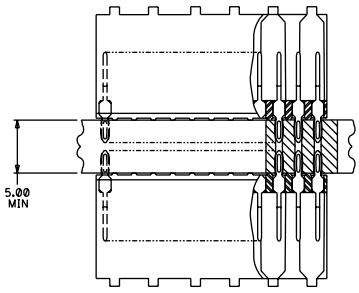
- Duckpin headers can be pressed in from the front and rear (sharing holes)

For backplanes thinner than 3.6mm (.140")

- Contact Molex for more information



Longpin



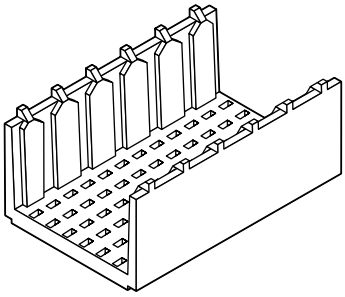
Duckpin

Rear Shrouds

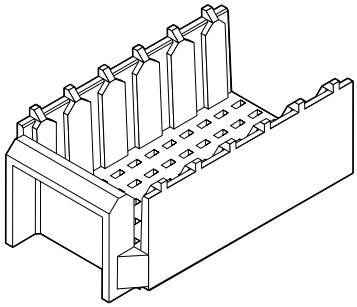
Features and Specifications

Shrouds press on to pins

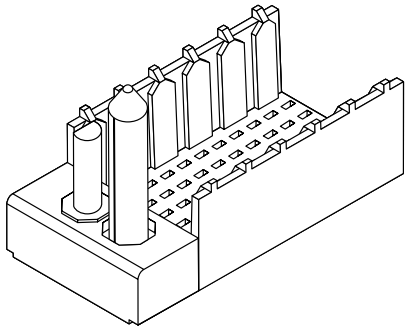
- Protruding from backplane to enable rear plugging of boards or cables



Open End Option
72 Position—73809-0000
144 Position—73810-1000



Closed End Option
72 Position—73809-0100
144 Position—73810-1100



Guide Pin Option
72 Position—73809-02XX
144 Position—73810-12XX

HDM Stackers

Features and Specifications

- Vertical female and headers
- Used for:

- Parallel backplanes
- Mezzanine Modules
- Processor modules for large computers
- Bridge boards joining adjacent backplanes

- Headers in open, end-wall and guide pin versions facilitate "blind-mating"
- Receptacles available in both solder tail and press-fit termination

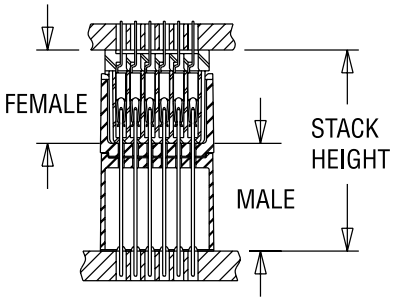
See tables to determine stack height

Header

Stack Height	Header	Receptacle
28	15	13
23	10	13

Possible header/receptacle combinations to reach specific stack heights

Header	Receptacle				
	13mm	14mm	15mm	16mm	17mm
15mm	28	29	30	31	32
10mm	23	24	25	26	27
6mm	19	20	21	22	23
2mm	15	16	17	18	19

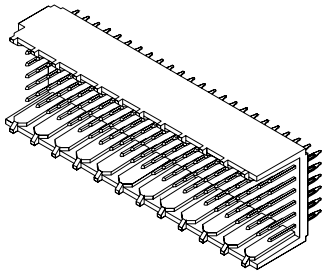


Note: HDM® and HDM PLUS® are registered trademarks of Amphenol Corporation

2.00mm (.079") Pitch HDM® Board-to-Board Backplane Header

73642/73942

Vertical Open End Option



Features and Benefits

- High-density 2mm, 6-row connector provides 30 contacts per linear centimeter (over 75 per inch)
- Designed for high-density/high-speed applications
- HDM header modules can mate interchangeably with either shielded (HDM) or unshielded (HDM$^{PLUS®}$) receptacle modules
- Modular components for design flexibility; 72 position (6 row by 12) and 144 position (6 row by 24) modules
- Eye of the needle press-fit for high reliability
- 3 mating pin lengths available for custom configurations
- Surface Mount Compatible

Reference Information

Product Specification: PS-73670-9999
Packaging: Tube
UL File No.: E29179
Mates With: 73632 and 73780
Designed In: Millimeters

Electrical

Current: 1.0A
Contact Resistance:

Row	A	B	C	D	E	F
milliohms max.	13	18	20	25	30	32

Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 1000 Megohms min.

Mechanical

Insertion Force: 135N max. per press-fit pin
Retention Force: 22.5N min. per press-fit pin
Mating Force: 0.35N typical per contact
Unmating Force: 0.15N min.
Signal Normal Force: 0.75N nom./0.60N min.
Durability: 250 cycles

Physical

Housing: Liquid crystal polymer
Contact: Phosphor Bronze
Plating: 30µ" Gold

Circuits	Order No.	Termination	Dimension		Lead-free
			Mating Pin Length	PC Tail Length	
72	73942-0000	Solder Tail	5.00 (.197)	2.00 (.079)	Yes
	73942-0200		6.00 (.236)		
	73942-2000		5.00 (.197)	2.50 (.098)	
	73942-2200		6.00 (.236)		
	73942-4000		5.00 (.197)	3.00 (.118)	
	73942-4200		6.00 (.236)		
	73942-6000		5.00 (.197)	3.50 (.138)	
	73942-6200		6.00 (.236)		
	73642-0000	Standard Press-Fit	5.00 (.197)	N/A	
	73642-0200		6.00 (.236)		
	73642-2000	Tin/Lead Press-Fit	5.00 (.197)		No
	73642-2200		6.00 (.236)		

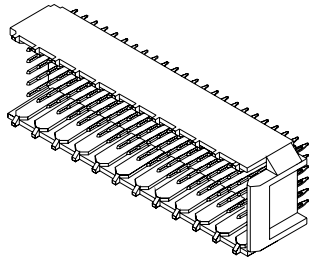
Circuits	Order No.	Termination	Dimension		Lead-free
			Mating Pin Length	PC Tail Length	
144	73942-1000	Solder Tail	5.00 (.197)	2.00 (.079)	Yes
	73942-1200		6.00 (.236)		
	73942-3000		5.00 (.197)	2.50 (.098)	
	73942-3200		6.00 (.236)		
	73942-5000		5.00 (.197)	3.00 (.118)	
	73942-5200		6.00 (.236)		
	73942-7000		5.00 (.197)	3.50 (.138)	
	73942-7200		6.00 (.236)		
	73642-1000	Standard Press-Fit	5.00 (.197)	N/A	
	73642-1200		6.00 (.236)		
	73642-3000	Tin/Lead Press-Fit	5.00 (.197)		No
	73642-3200		6.00 (.236)		

Note: HDM® and HDM$^{PLUS®}$ are registered trademarks of Amphenol Corporation

2.00mm (.079") Pitch HDM® Board-to-Board Backplane Header

73943

Vertical Closed End Option



Features and Benefits

- Similar features as the 73642 header
- Eye of the needle press-fit for high reliability
- End wall improves mating guidance and increases strength for the end of connectors
- Surface Mount Compatible

Reference Information

Product Specification: PS-73670-9999
Packaging: Tube
UL File No.: E29179
Mates With: 73632 and 73780
Designed In: Millimeters

Electrical

Current: 1.0A
Contact Resistance:

Row	A	B	C	D	E	F
milliohms max.	13	18	20	25	30	32

Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 1000 Megohms min.

Mechanical

Insertion Force: 135N max. per press-fit pin
Retention Force: 22.5N min. per press-fit pin
Mating Force: 0.35N typical per contact
Unmating Force: 0.15N min.
Signal Normal Force: 0.75N nom./0.60N min.
Durability: 250 cycles

Physical

Housing: Liquid crystal polymer
Contact: Phosphor Bronze
Plating: 30µ" Gold

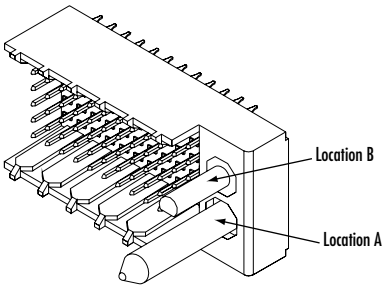
Circuits	Order No.	Termination	Dimension		Lead-free
			Mating Pin Length	PC Tail Length	
72	73943-0000	Solder Tail	5.00 (.197)	2.00 (.079)	Yes
	73943-0200		6.00 (.236)		
	73943-2000		5.00 (.197)	2.50 (.098)	
	73943-2200		6.00 (.236)		
	73943-4000		5.00 (.197)	3.00 (.118)	
	73943-4200		6.00 (.236)		
	73943-6000		5.00 (.197)	3.50 (.138)	
	73943-6200		6.00 (.236)		

Circuits	Order No.	Termination	Dimension		Lead-free
			Mating Pin Length	PC Tail Length	
144	73943-1000	Solder Tail	5.00 (.197)	2.00 (.079)	Yes
	73943-1200		6.00 (.236)		
	73943-3000		5.00 (.197)	2.50 (.098)	
	73943-3200		6.00 (.236)		
	73943-5000		5.00 (.197)	3.00 (.118)	
	73943-5200		6.00 (.236)		
	73943-7000		5.00 (.197)	3.50 (.138)	
	73943-7200		6.00 (.236)		

Note: HDM® and HDM$^{PLUS®}$ are registered trademarks of Amphenol Corporation

2.00mm (.079") Pitch HDM® Board-to-Board Backplane Header

73644
Vertical
Press-Fit Guide Pin Option



Features and Benefits
- Similar features as the 73642 header
- Eye of the needle press-fit for high reliability
- Metal hex key offers 8 coding combinations (64 with 2 keys) and makes metallic sound when card is in wrong slot
- Guide pin provides ± 1.9mm of capture prior to plastic mating
- Can use 1 guide pin in center of connector or on both ends
- Guide pin module attached to header enhances accuracy and reduces parts count
- Surface Mount Compatible

Reference Information
Product Specification: PS-73670-9999
Packaging: Tube
UL File No.: E29179
Mates With: 73632 and 73780
Designed In: Millimeters

Electrical
Current: 1.0A
Contact Resistance:

Row	A	B	C	D	E	F
milliohms max.	13	18	20	25	30	32

Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 1000 Megohms min.

Mechanical
Insertion Force: 135N max. per press-fit pin
Retention Force: 22.5N min. per press-fit pin
Mating Force: 0.35N typical per contact
Unmating Force: 0.15N min.
Signal Normal Force: 0.75N nom./0.60N min.
Durability: 250 cycles

Physical
Housing: Liquid crystal polymer
Contact: Phosphor Bronze
Plating: 30µ" Gold

Circuits	Order No.				Termination	Mating Pin Length	Lead-free
	Location B = Pin Location A = No Code	Location B = No Code Location A = Pin	Location B = Pin Location A = Code A	Location B = Code A Location A = Pin			
72	73644-0016	73644-0017	73644-0000	73644-0001	Standard Press-Fit	5.00 (.197)	Yes
	73644-0216	73644-0217	73644-0200	73644-0201		6.00 (.236)	
	73644-2016	73644-2017	73644-2000	73644-2001	Tin/Lead Press-Fit	5.00 (.197)	
	73644-2216	73644-2217	73644-2200	73644-2201		6.00 (.236)	
144	73644-1016	73644-1017	73644-1000	73644-1001	Standard Press-Fit	5.00 (.197)	
	73644-1216	73644-1217	73644-1200	73644-1201		6.00 (.236)	
	73644-3016	73644-3017	73644-3000	73644-3001	Tin/Lead Press-Fit	5.00 (.197)	No
	73644-3216	73644-3217	73644-3200	73644-3201		6.00 (.236)	

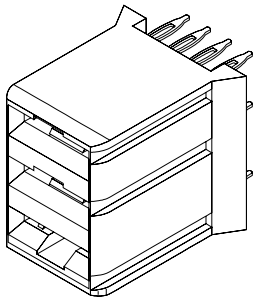
Note: HDM® is a registered trademark of Amphenol Corporation
Note: Additional key combinations and locations are available, please contact Molex
Note: Tin/Lead press-fit zones are used for bare Copper or Gold plated PCBs
Note: The guide pin must mate with the top position on the mating receptacle to clear the board edge. Therefore, if guide pin headers are used on each end of a header array, you should select one with the pin in location B and the second with the guide pin in location A.

Application Note

The backplane headers are delivered as modules and are press-fitted into the backplane. This allows maximum flexibility with minimum inventory. Note that the guidepins are an integral part of the headers. This also means that you may have different part numbers for left-handed and right-handed headers. You must consult the customer print to determine the appropriate part number for various combinations of guide pin locations (2) and coding pin orientations (8).

2.00mm (.079") Pitch HDM® Board-to-Board Backplane Power Module

73656
Vertical Power Receptacle



Features and Benefits
- 15A per blade current carrying capacity
- Press-fit on backplane eliminates soldering
- Female on backplane for safety
- 12mm module can be distributed between signal modules as needed
- Metric connector in Futurebus form factor
- Surface Mount Compatible

Reference Information
Product Specification: PS-73651-1998
Packaging: Tube
UL File No.: E29179
Mates With: 73651
Designed In: Millimeters

Electrical
Current: 15.0A
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 1000 Megohms min.

Mechanical
Insertion Force: 135N max. per press-fit pin
Retention Force: 22.5N min. per press-fit pin
Mating Force: 2.5N max. per contact
Unmating Force: 0.15N min.
Normal Force: 1.0N min.
Durability: 250 cycles

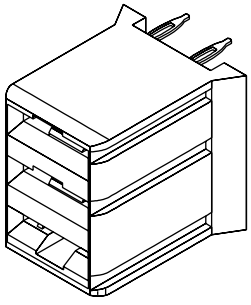
Physical
Housing: Liquid crystal polymer
Contact: 0.4mm Beryllium Copper
Plating: 30µ" Gold

Module	Order No.	Termination	PC Tail Length	Lead-free
Backplane Power Module	73656-0000	Press-Fit	3.50 (.138)	No

Note: HDM® is a registered trademark of Amphenol Corporation

2.00mm (.079") Pitch HDM® Board-to-Board Midplane Power Module

73656
Vertical Power Receptacle, Press-Fit



Features and Benefits
- Two tails per contact permits back-to-back mounting of power connectors on midplane
- 11.0A per contact
- For backplanes thicker than 3.5mm
- Requires only 12 holes in backplane
- Surface Mount Compatible

Reference Information
Product Specification: PS-73651-1998
Packaging: Tube
UL File No.: E29179
Mates With: 73651
Designed In: Millimeters

Electrical
Current: 11.0A
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 1000 Megohms min.

Mechanical
Insertion Force: 135N max. per press-fit pin
Retention Force: 22.5N min. per press-fit pin
Mating Force: 2.5N max. per contact
Unmating Force: 0.15N min.
Normal Force: 1.0N min.
Durability: 250 cycles

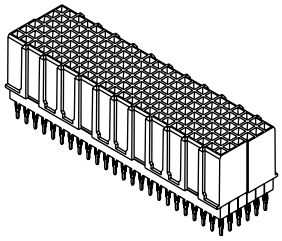
Physical
Housing: Liquid crystal polymer
Contact: 0.4mm Beryllium Copper
Plating: 30µ" Gold

Module	Order No.	Termination	Finish	Lead-free
Midplane Power Module	73656-1000	Press-Fit	Gold	No

Note: HDM® is a registered trademark of Amphenol Corporation

2.00mm (.079") Pitch HDM® Board-to-Board Daughterboard Receptacle

73780
Vertical Signal Module



Features and Benefits
- High-density 2.00mm metric connector in the same form factor as Futurebus
- 6-row 2mm connector provides 30 contacts per linear centimeter (over 75 per inch)
- Designed for high-density, high-speed applications
- Modular components for design flexibility; 72 position (6 row by 12) and 144 position (6 row by 24) modules
- Tail lengths available in 0.5mm increments to optimize PCB thickness
- Surface Mount Compatible

Reference Information
Product Specification: PS-73670-9999
Packaging: Tube
UL File No.: E29179
Mates With: 73642, 73643, 73644, 73769, 73770, 73771, 73781, 73783, 74349 and 74428
Designed In: Millimeters

Electrical
Voltage: 1000V
Current: 1.0A
Contact Resistance: 40 milliohms max
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 1000 Megohms min.

Mechanical
Insertion Force: 45N max. per press-fit pin
Retention Force: 9N min. per press-fit pin
Mating Force: 0.35N typical
Unmating Force: 0.15N min.
Signal Normal Force: 0.75N nom./0.60N min.
Durability: 250 cycles

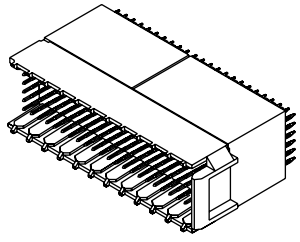
Physical
Housing: Liquid crystal polymer
Contact: Copper Alloy per C72500
Plating: 30µ" Gold with 300µ" Tin/Lead

Circuits	Termination	PC Tail Length	Distance from Mating Interface to Surface of Board					Lead-free
			13.0mm (.512")	14.0mm (.551")	15.0mm (.591")	16.0mm (.630")	17.0mm (.669")	
72	Solder Tail	2.00 (.079)	73780-0223	73780-0224	73780-0225	73780-0226	73780-0227	Yes
		2.50 (.098)	73780-0233	73780-0234	73780-0235	73780-0236	73780-0237	
		3.00 (.118)	73780-0243	73780-0244	73780-0245	73780-0246	73780-0247	
		3.50 (.138)	73780-0253	73780-0254	73780-0255	73780-0256	73780-0257	
		4.00 (.158)	73780-0263	73780-0264	73780-0265	73780-0266	73780-0267	
	Press-Fit	3.00 (.118)	73780-2243	73780-2244	73780-2245	73780-2246	73780-2247	No
		3.50 (.138)	73780-2253	73780-2254	73780-2255	73780-2256	73780-2257	
		4.00 (.158)	73780-2263	73780-2264	73780-2265	73780-2266	73780-2267	
144	Solder Tail	2.00 (.079)	73780-1223	73780-1224	73780-1225	73780-1226	73780-1227	Yes
		2.50 (.098)	73780-1233	73780-1234	73780-1235	73780-1236	73780-1237	
		3.00 (.118)	73780-1243	73780-1244	73780-1245	73780-1246	73780-1247	
		3.50 (.138)	73780-1253	73780-1254	73780-1255	73780-1256	73780-1257	
		4.00 (.158)	73780-1263	73780-1264	73780-1265	73780-1266	73780-1267	
	Press-Fit	3.00 (.118)	73780-3243	73780-3244	73780-3245	73780-3246	73780-3247	No
		3.50 (.138)	73780-3253	73780-3254	73780-3255	73780-3256	73780-3257	
		4.00 (.158)	73780-3263	73780-3264	73780-3265	73780-3266	73780-3267	

Note: HDM® is a registered trademark of Amphenol Corporation

2.00mm (.079") Pitch HDM® Board-to-Board Stacking Header

73770
High Rise Vertical Closed End Option



Features and Benefits
- For parallel board packaging
- Available in press-fit or solder tail
- Up to 32mm board-to-board stack heights
- For Mezzanine cards, parallel backplanes and bridge board applications
- End walls facilitate blind mating
- Surface Mount Compatible

Reference Information
Product Specification: PS-73670-9999
Packaging: Tube
UL File No.: E29179
Mates With: 73632 and 73780
Designed In: Millimeters

Electrical
Current: 1.0A
Contact Resistance:

Row	A	B	C	D	E	F
milliohms max.	13	18	20	25	30	32

Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 1000 Megohms min.

Mechanical
Insertion Force: 135N max. per press-fit pin
Retention Force: 22.5N min. per press-fit pin
Mating Force: 0.35N typical per contact
Unmating Force: 0.15N min.
Signal Normal Force: 0.75N nom./0.60N min.
Durability: 250 cycles

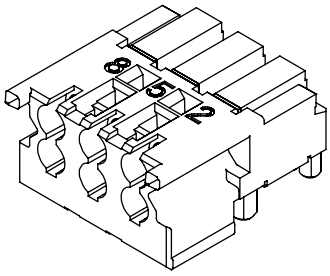
Physical
Housing: Liquid crystal polymer
Contact: Phosphor Bronze
Plating: 30µ" Gold

Circuits	Order No. Press-Fit Tail = 3.50mm (.138")	Distance from Mating Interface to Surface of Board	Lead-free
72	73770-0100	15.05 (.593)	No
	73770-0200	6.05 (.238)	
	73770-0300	10.05 (.396)	
144	73770-1100	15.05 (.593)	
	73770-1200	6.05 (.238)	
	73770-1300	10.05 (.396)	

Note: HDM® is a registered trademark of Amphenol Corporation

6.25mm (.246") Pitch Ganged RF Daughtercard

74642
Right Angle



Order No.	Loaded Terminals	Lead-free
74642-0001	2, 5, 8, 11	Yes
74642-0002	2	
74642-1001	2, 5, 8	
74642-1002	2, 5	
74642-1003	2	
74642-1004	8	

Features and Benefits
- Available in 3 and 4 port sizes with selective loading
- 50 ohms ± 10% match impedance contact system for low insertion loss and optimal signal integrity
- 60 db minimum isolation to minimize crosstalk
- Press-fit termination and locator pegs for easy and reliable board termination

Reference Information
Product Specification: PS-74854-001
Packaging: Tray
UL File No.: E107635
CSA File No.: 152514 (LR19980)
Mates With: 74712
Use With: Header
Designed In: Millimeters

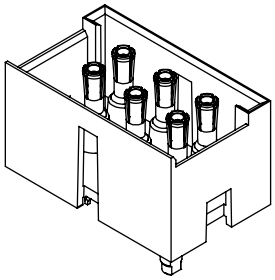
Electrical
Voltage: 50V
Current: 1.0A
Contact Resistance: 35 milliohms max.
Insulation Resistance: 1,000 Megohms min.

Mechanical
Contact Retention to Housing: 5.0N (1.12 lb)
Insertion Force to PCB: 50.0N (11.24 lb)
Mating Force: 5.00N (1.12lb)
Unmating Force: 1.0N (0.22 lb)
Normal Force :0.5N (0.11 lb)
Durability: 500 cycles

Physical
Housing: Glass-filled LCP Liquid Crystal Polymer, UL 94V-0
Contact: Brass
Plating: Contact Area—0.76µm (30µ") Gold
PCB Thickness: 3.20mm (.125")

6.25mm (.246") Pitch Ganged RF Header

74712
Vertical



Order No.	Loaded Terminals	Lead-free
74712-0001	2, 5, 8, 11	Yes
74712-0002	2	
74712-1001	2, 5, 8	
74712-1002	2, 5	
74712-1003	2	
74712-1004	8	

Features and Benefits
- Available in 3 and 4 port sizes with selective loading
- 50 ohms ± 10% match impedance contact system for low insertion loss and optimal signal integrity
- 60 db minimum isolation to minimize crosstalk
- Press-fit termination and locator pegs for easy and reliable board termination

Reference Information
Product Specification: PS-74854-001
Packaging: Tray
UL File No.: E107635
CSA File No.: 152514 (LR19980)
Mates With: 74712
Use With: Daughtercards
Designed In: Millimeters

Electrical
Voltage: 50V
Current: 1.0A
Contact Resistance: 35 milliohms max.
Insulation Resistance: 1,000 Megohms min.

Mechanical
Contact Retention to Housing: 5.0N (1.12 lb)
Insertion Force to PCB: 50.0N (11.24 lb)
Mating Force: 5.00N (1.12lb)
Unmating Force: 1.0N (0.22 lb)
Normal Force: 0.5N (0.11 lb)
Durability: 500 cycles

Physical
Housing: Glass-filled LCP Liquid Crystal Polymer, UL 94V-0
Contact: Brass
Plating: Contact Area—0.76µm (30µ") Gold
PCB Thickness: 3.20mm (.125")

Serial ATA (SATA)

Signal and Power Cable Assemblies I-2
External Receptacle Assembly I-3
Combo Host Receptacles ..... I-4 to I-5
Host Receptacle I-6

Serial Attached SCSI

Combo Host Receptacle I-6
Combo Device Plug I-7
Combo Host Receptacle I-7

4X SAS/SATA

Internal Multi-Lane Plug ..... I-8 to I-9
Cable Assemblies I-9

EBBI™ 50D

Overview I-10
SCA-2 Receptacles
- Right Angle I-11
- Vertical ..... I-12 to I-14

SCA-2 Plug I-12
Receptacles
- Right Angle I-15
- Vertical ..... I-16 to I-17

Plugs
- Right Angle ..... I-17 to I-18
- Vertical ..... I-18 to I-20

Related products, such as GBIC, iPass™, LaneLink™, InifiniBand* and SFP, are available in section N, I/O Products.

*InfiniBand is a trademark of the InfiniBand Trade Association.

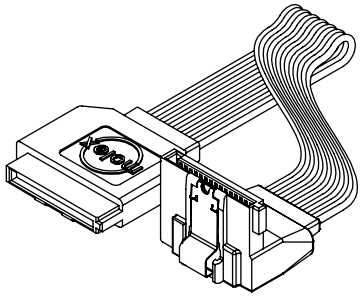
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Serial ATA* (SATA) Signal and Power Cable Assemblies

68561/88750/88751/88755/ 88757/88761/88762

With and without latch



Features and Benefits

- High-speed data transfer, generation 2 (300 MBps)
- Device can be hot swapped without shutting down or restarting the system
- Plug-and-play under Windows® 98 Second Edition, Windows® Me, Windows® 2000 and Windows® XP
- Operation System (OS) transparent. No driver is needed, works under DOS and all Windows
- Built-in RAID support
- Low cost
- User-friendly latch provides secure mating

Reference Information

Product Specification: PS-887505, PS-67490-002
Packaging: Bag
Mates With: SATA signal and power plug
Designed In: Millimeters

Electrical

Voltage: 40V
Current: 1.5A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 45N max.
Unmating Force: 10N min.
Durability: 500 cycles for both signal and power cable

Physical

Housing:
Contact: Copper Alloy
Plating: Contact Area—0.75µm (30µ") min. Gold; Gold flash is also available for SATA Power Cable Assembly
Underplating: Nickel

Signal Cables

Cable Length (mm)	Order No.	Cable Description	Cable Color	Latch	Lead-free
500	88750-5310	Serial ATA Signal Cable Assembly, Straight-To-Straight	Gray	No	Yes
	88750-5318		Red		
1000	88750-5410		Gray		
	88750-5418		Red		
500	68561-0014		Red	Yes	
1000	68561-0015				
500	68561-0016	Serial ATA Signal Cable Assembly, Straight Latching-To-Right Angle Latching	Red	Yes	
1000	68561-0017				
500	88762-5400	Serial ATA Signal Cable Assembly, Straight-To-Right Angle		No	
1000	88762-5410				

Signal Plugs

Description	Order No.	Plating	Housing Color	Lead-free
Right Angle SMT Plug With Peg, Latch Type	47080-4001	Gold Flash	Black	Yes
	47080-4002	0.76µm/30µ" Gold		
	47080-4005	0.38µm/15µ" Gold		
	47080-5001	Gold Flash	Natural	
	47080-5002	0.76µm/30µ" Gold		
	47080-5005	0.38µm/15µ" Gold		
	47080-6001	Gold Flash	Blue	
	47080-6002	0.76µm/30µ" Gold		
	47080-6005	0.38µm/15µ" Gold		
Vertical Through Hole Signal Plug, Latch Type	47155-4001	Gold Flash	Black	
	47155-4031		Blue	
	47155-4041		Natural	
Vertical SMT Signal Plug, Latch Type	67800-5001	Gold Flash	Black	
	67800-5002	0.76µm/30µ" Gold		
	67800-5005	0.38µm/15µ" Gold		
	67800-5021	Gold Flash		
	67800-5022	0.76µm/30µ" Gold		
	67800-5025	0.38µm/15µ" Gold		

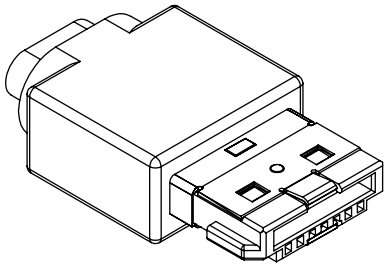
Power Cables

Cable Length (mm)	Order No.	Cable Description	Plating Contact	Latch	Lead-free
152.4	88751-1310	Serial ATA Power Adapter Cable, Crimping Type	Gold Flash	No	Yes
	88751-1311		0.76µm/30µ" Gold		
1500	88751-1410	Serial ATA Power Harness to Pigtail Cable (4 pins), Crimping Type	Gold Flash		
	88751-1411		0.76µm/30µ" Gold		
	88757-7810	Serial ATA Power Harness to Pigtail Cable (5 pins), Crimping Type	Gold Flash		
	88757-7811		0.76µm/30µ" Gold		
152.4	68561-0018	Serial ATA Power Harness to Pigtail Cable (4 pins), IDT Type	Gold Flash	Yes	
	68561-0019		0.76µm/30µ" Gold		
1500	68561-0020	Serial ATA Power Harness to Pigtail Cable (4 pins), IDT Type	Gold Flash		
	68561-0021		0.76µm/30µ" Gold		
	68561-0022	Serial ATA Power Harness to Pigtail Cable (5 pins), IDT Type	Gold Flash		
	68561-0023		0.76µm/30µ" Gold		
152.4	88761-4500	Serial ATA Power Harness to Pigtail Cable (4 pins), IDT Type	Gold Flash	No	
	88761-4510		0.76µm/30µ" Gold		
1500	88761-4600	Serial ATA Power Harness to Pigtail Cable (4 pins), IDT Type	Gold Flash		
	88761-4610		0.76µm/30µ" Gold		
	88761-4700	Serial ATA Power Harness to Pigtail Cable (5 pins), IDT Type	Gold Flash		
	88761-4710		0.76µm/30µ" Gold		

*Serial ATA is a trademark of the Serial ATA℠ Trade Association

1.27mm (.050") Pitch Serial ATA External Receptacle Assembly

47078/47082



Features and Benefits

- Blind mate guide ears aid alignment of mating parts
- First-mate/last-break contacts support hot plugging
- Friction ramps provide passive lock to mating shell

Reference Information

Product Specification: PS-47082-001
Designed In: Millimeters

Electrical

Voltage: 15V DC
Current: 1.5A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 20.0N
Unmating Force: 4.0N
Durability: 2500 cycles

Physical

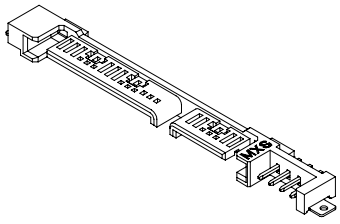
Housing: Thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Solder Tail Area—Tin Alloy
Underplating: 50µ" Nickel

Type	Order No.	SMT Order No.	Plating	Lead-free
Connector	47078-0001	47082-0000	Gold Flash	Yes
	47078-1001	47082-1000	0.38mm (15µ") Gold	
	47078-2001	47082-2000	0.76mm (30µ") Gold	
Metal Shell	47078-0004		Nickel	
Crimping Metal Shell	47078-0003			

1.27mm (0.05") Pitch Serial ATA Combo Device Plug

87703/87799

7 Signal Pin, 15 Power Pin Right Angle, SMT



Features and Benefits

- Compliant to Serial ATA-IO workgroup standard
- Serial signal transmission up to 3.0 Gbps
- Additional 4 jumper pin (2.00mm [0.079"] pitch) for drive configuration for 87799
- First-mate/last-break contacts for hot-plugging
- Guide pocket for blind-mating
- Friction locking for mating with Serial ATA cable receptacle without latch
- Plastic locating peg assures proper locating on PCB
- SMT fitting nail for extra retention to PCB
- Designated pick-and-place area for direct SMT soldering, no cap or kapton tape required for pick-and-place
- High-temperature thermoplastic housing allows lead-free process capability
- RoHS compliant

Reference Information

Product Specification: PS-87799-012, PS-87703-017
Packaging: Tray
Mates With: Serial ATA Board-to-Board Combo Receptacles—47162, 47018, 67492, 87678, 87701, 87713, 87779, 87780, 87781
Serial ATA Cable-to-Board—88750, 88762 signal receptacle; 88751, 88757, 88761 power receptacle
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force:
Board-to-Board Receptacle—20N (4.50 lb) max.
Cable Receptacle—45N (10.12 lb) max.
Unmating Force:
Board-to-Board Receptacle—4N (0.90 lb) min.
Cable Receptacle—10N (2.25 lb) min.
Durability: Internal Cable Application—50 cycles
Backplane Application—500 cycles

Physical

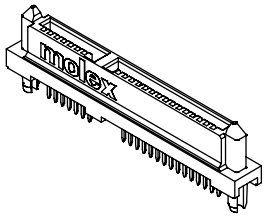
Housing: Black glass-filled LCP, UL 94V-0
Contact and SMT Nail: Copper Alloy
Plating: Contact Area—0.127µm (5µ") Gold
Solder Tail Area—See table
SMT Fitting Nail Area—Tin
Underplating: Nickel
PCB Thickness: See table

Circuits	Order No.	Solder Tail Plating	PCB Thickness	Description	Lead-free
22	87703-0001	0.127µm (5µ") Gold	0.50mm (.020")	Without Jumper	Yes
	87799-0001	Tin	0.60mm (.024")	With Jumper	

1.27mm (0.05") Pitch Serial ATA Combo Host Receptacle

87779/87678

7 Signal Pin, 15 Power Pin Vertical, Through Hole



Features and Benefits

- Compliant to Serial ATA-IO workgroup standard
- Serial signal transmission up to 3.0 Gbps
- First-mate/last-break contacts for hot-plugging
- Guide post for blind-mating
- Plastic locating peg assures proper locating on PCB
- High-temperature thermoplastic housing allows lead-free process capability
- RoHS compliant

Reference Information

Product Specification: PS-87779-011, PS-87678-029
Packaging: Tray
Mates With: 87679, 87703 and 87799 Serial ATA combo plug
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Housing Slip-Out Force: 60N (13.49 lb) min.
Mating Force: 20N (4.50 lb) max.
Unmating Force: 4N (0.90 lb) min.
Durability: 500 cycles

Physical

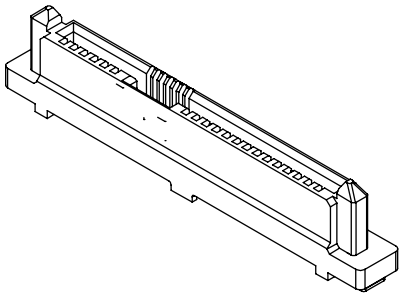
Housing: Black glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold
Solder Tail Area—Tin
Underplating: Nickel
PCB Thickness: 0.80 to 2.50mm (0.031 to 0.098")

Circuits	Order No.	Receptacle Height	Lead-free
22	87779-1001	Standard 8.15mm (.321")	Yes
	87678-1001	Extended 14.15mm (.557")	

1.27mm (.050") Pitch Serial ATA Combo Host Receptacle

78011

7 Signal Pin, 15 Power Pin Vertical, SMT Standard Height



Features and Benefits

- No center rib on the housing allows inter-mating to either Serial ATA drive plug, or SAS drive plug in SAS/Serial ATA interposer application
- Inter-mating to SAS drive plug will not utilize SAS second signal port
- Serial signal transmission up to 3.0 Gbps
- First-mate/last-break contacts for hot-plugging
- Guide post for blind-mating
- SMT fitting nail for extra retention to PCB
- Pick-and-place cap allows automated placement onto PCB
- High-temperature thermoplastic housing allows lead-free process capability
- RoHS compliant

Reference Information

Product Specification: PS-78011-002
Packaging: Embossed tape
Mates With: 87679, 87703 and 87799 Serial ATA combo plug; 78012 SAS combo plug
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Housing Slip-Out Force: 60N (13.49 lb) min.
Mating Force: 20N (4.50 lb) max.
Unmating Force: 4N (0.90 lb) min.
Durability: 500 cycles

Physical

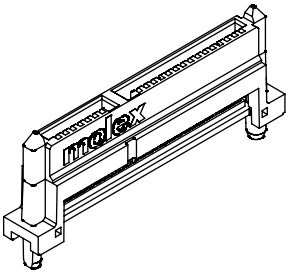
Housing: Black nylon (PA), UL 94V-0
Contact and SMT Fitting Nail: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold
Solder Tail Area—Tin
SMT Fitting Nail Area—Tin
Underplating: Nickel

Circuits	Order No.	Receptacle Height	Lead-free
22	78011-0011	8.15mm (.321")	Yes

1.27mm (0.05") Pitch Serial ATA Combo Host Receptacle

87713

7 Signal Pin, 15 Power Pin Vertical, SMT



Features and Benefits

- Compliant to Serial ATA-IO workgroup standard
- Serial signal transmission up to 3.0 Gbps
- First-mate/last-break contacts for hot-plugging
- Guide post for blind-mating
- Plastic locating peg assures proper locating on the PCB
- High-temperature thermoplastic housing allows lead-free process capability
- RoHS compliant

Reference Information

Product Specification: PS-87713-016, PS-87781-005
Packaging: Tray
CSA File No.: LR19980-87713
Pending: 87781
Mates With: 87679, 87703 and 87799 Serial ATA combo plug
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Housing Slip-Out Force: 60N (13.49 lb) min.
Insertion Force to PCB: 44.5N (10.00 lb) max. per pin
Mating Force: 20N (4.50 lb) max.
Unmating Force: 4N (0.90 lb) min.
Durability: 500 cycles

Physical

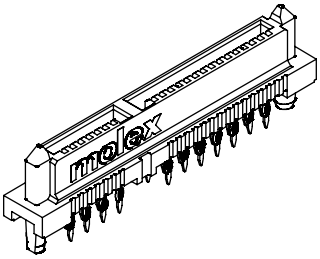
Housing: Black glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold
Solder Tail Area—Tin
Underplating: Nickel

Circuits	Order No.	Receptacle Height	Lead-free
22	87713-1001	Standard 8.15mm (.321")	Yes

1.27mm (0.05") Pitch Serial ATA Combo Host Receptacle

87701/87780

7 Signal Pin, 15 Power Pin Vertical, Press-Fit



Features and Benefits

- Compliant to Serial ATA-IO workgroup standard
- Serial signal transmission up to 3.0 Gbps
- First-mate/last-break contacts for hot-plugging
- Guide post for blind-mating
- Plastic locating peg assures proper locating on PCB
- High-temperature thermoplastic housing allows lead-free process capability
- RoHS compliant

Reference Information

Product Specification: PS-87701-033, PS-87780-024
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 87679, 87703 and 87799 Serial ATA combo plug
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Housing Slip-Out Force: 60N (13.49 lb) min.
Insertion Force to PCB: 44.5N (10.00 lb) max. per pin
Mating Force: 20N (4.50 lb) max.
Unmating Force: 4N (0.90 lb) min.
Durability: 500 cycles

Physical

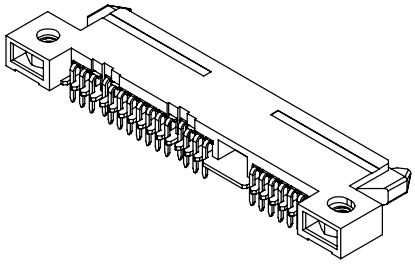
Housing: Black glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold
Solder Tail Area—Tin
Underplating: Nickel
PCB Thickness: 1.50mm (0.059") to 2.00mm (0.079")

Circuits	Order No.	Receptacle Height	Lead-free
22	87701-1001	Standard 8.15mm (.321")	Yes
	87780-1001	Extended 14.15mm (.557")	

1.27mm (.050") Pitch Serial ATA Host Receptacle

47305

Right Angle, Through Hole



Features and Benefits

- Blind mate guide ears aid alignment of mating parts
- First-mate/last-break contacts support hot plugging
- Connector enables direct docking
- Threaded to accept industry standard M2x0.4 screw and provide secure PCB retention

Reference Information

Product Specification: PS-67492-001
Packaging: Tape on reel
Mates With: 87703
Designed In: Millimeters

Electrical

Voltage: 15V DC
Current: 1.5A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 20.00N
Unmating Force: 4.00N
Durability: 500 cycles

Physical

Housing: High-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Solder Tail Area—50µ" Tin
Underplating: 50µ" Nickel

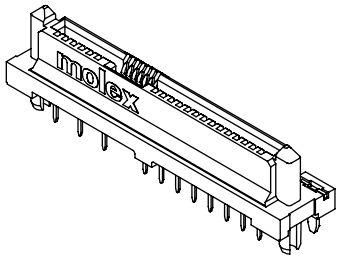
Circuits	Order No.	Type	Plating	Lead-free
22	47305-2000	Top Mount	Gold Flash	Yes
	47305-2001		30µ" Gold	
	47305-2002		15µ" Gold	

www.molex.com/product/serial_ata.html

1.27mm (.050") Pitch Serial Attached SCSI Combo Host Receptacle

87824/87839/87863

Vertical, Standard Height



Features and Benefits

- Point-to-point architecture will ensure maximum bandwidth
- Disk or backplane interoperability with Serial ATA gives flexibility to specify best drive for intended use
- Hot-plugging capability allows adding or removing drives without system shutdown
- 3.0 Gbps transfer rate
- Solder tab or blade locking provides secure locking to PCB
- Guide post allows blind-mating of connector
- Space saving and better airflow in system cabinets with compact cabling and connectors
- Plastic locating pegs assure proper locating on the PCB
- Embossed tape packaging and removable pick-and-place cap option allows for automated placement on PCB

Reference Information

Product Specification: PS-87824-029, PS-87839-041, PS-87863-060 and PS-87970-003
Packaging: See table
UL File No.: E29179 (87824, 87863, 87970)
CSA File No.: LR19980 (87824)
Mates With: 78012—SAS combo plug
87703, 87679 and 87799—SATA combo plug
Conforms To: SFF8482 standards
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Housing Slip-Out Force: 90N (20.23 lb) min.
Insertion Force to PCB: Press-fit only 45N (10.12 lb) per pin
Mating Force: 25N (5.62 lb) max.
Durability: 500 cycles

Physical

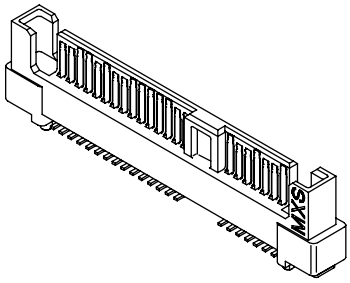
Housing: Black glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Select Gold
Terminal Area—Tin
Underplating: Nickel

Circuits	Order No.	PCB Mounting	PCB Retention	Packaging	Pick-and-Place Cap	Recommended PCB Thickness	Lead-free
29	87824-0003	SMT	Solder Blade	Tray	Yes	1.60mm (.062")	Yes
	87824-0005	SMT	Solder Blade	Tray	Yes	1.60mm (.062")	
	87824-0007	SMT	Solder Blade	Tray	Yes	1.60mm (.062")	
	87824-0004	SMT	Solder Tab	Tray	Yes	4.60mm (.181")	
	87824-0008	SMT	Solder Tab	Tray	Yes	4.60mm (.181")	
	87824-0010	SMT	Solder Tab	Tray	Yes	4.60mm (.181")	
	87839-0019	Hybrid	Solder Blade	Tray	No	3.00mm (.118")	
	87839-0017	Hybrid	Solder Blade	Tape and Reel	Yes	3.00mm (.118")	
	87839-0018	Hybrid	Solder Blade	Tape and Reel	Yes	2.40mm (.094")	
	87863-0015	Press-Fit	Press-Fit PC Tail	Tray	No	1.60mm (.063")	
	87863-0025	Press-Fit	Press-Fit PC Tail	Tray	No	2.40-3.20mm (.094-.126")	

www.molex.com/product/scsi_sff_8482.html

1.27mm (.050") Pitch Serial Attached SCSI Combo Device Plug

78012
Vertical, SMT



Features and Benefits
- Point-to-point architecture will ensure maximum bandwidth
- Disk or backplane interoperability with Serial ATA gives flexibility to specify best drive for intended use
- Hot-plugging capability allows adding/removing drives without system shutdown
- 3.0 Gbps transfer rate
- SMT fitting nails provide additional PCB retention
- Guide pocket allows blind-mating of connector
- Pick-and-place cap allows automated placement on PCB
- Space saving and better airflow in system with compact cabling and connectors
- Plastic locating pegs assure proper locating on the PCB

Reference Information
Product Specification: PS-78012-002
Packaging: Tape and reel
Mates With: 87824, 87839, 87863, 87970, 87945 and 87975 SAS combo receptacle; 78011 SATA combo receptacle
Conforms To: SFF8482 standards
Designed In: Millimeters

Electrical
Voltage: 30V
Current: Power—1.5A
Signal—500mA
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

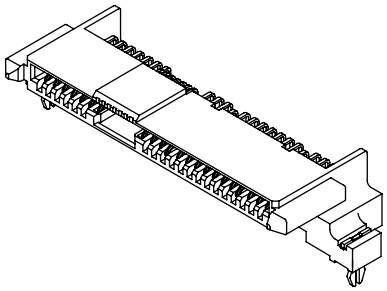
Mechanical
Terminal Retention Force:
SAS Primary Physical Line (Power/Signal) Port 1: 4.45N min.
SAS Secondary Physical Link Port 2: 2.20N min.
Mating Force: Backplane—25N max.
Cable—50N max.
Unmating Force: Backplane Receptacle—5N min.
Cable Receptacle—20N min.
Durability: Cable Application—25 cycles
Backplane Application—500 cycles

Physical
Housing: Black nylon, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Select Gold
Terminal Area—Tin
Underplating: Nickel

Circuits	Order No.	Pick-and-Place Cap	Lead-free
29	78012-0011	Yes	Yes
	78164-1051		

1.27mm (.050") Pitch Serial Attached SCSI Combo Host Receptacle

87945/87975/78266
Right Angle, SMT



Features and Benefits
- Point-to-point architecture will ensure maximum bandwidth
- Disk or backplane interoperability with Serial ATA gives flexibility to specify best drive for intended use
- Hot-plugging capability allows adding or removing drives without system shutdown
- 3.0 Gbps transfer rate
- Forklock or blade locking ensures secure locking to PCB
- Guide post allows blind-mating of connector
- Space saving and better airflow in system cabinets with compact cabling and connectors
- Plastic locating pegs assure proper locating on the PCB

Reference Information
Product Specification: PS-87945-034 and PS-87975-102
Packaging: Tray
Mates With: 78012—SAS combo plug
87679, 87703 and 87799—SATA combo plug
Conforms To: SFF8482 standards
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 1.5A
Contact Resistance: 45 milliohms max
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min

Mechanical
Housing Slip-Out Force: 90N (20.23 lb) min.
Mating Force: 25N (5.62 lb) max.
Durability: 500 cycles

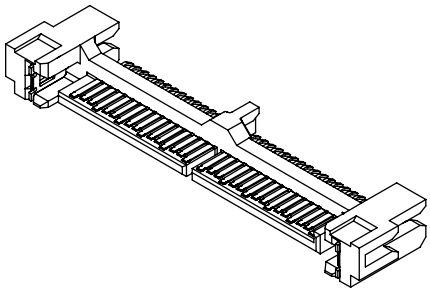
Physical
Housing: Nylon 9T, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Select Gold
Terminal Area—Tin
Underplating: Nickel
PCB Thickness: 1.60mm (.062")

Circuits	Order No.	PCB Retention	'Z' Height	Lead-free
29	87945-0001	Forklock	7.07mm (.278")	Yes
	87945-0002	Solder Blade		
	87975-1001	Forklock	2.85mm (.112")	
	87975-1002	Solder Blade		
	78266-0002	Forklock	4.15mm (.163")	

1.27mm (.050") Pitch 4X SAS/SATA Internal Multi-Lane Plug

87969

Right Angle, Straddle Mount



Features and Benefits

- Point-to-point architecture will ensure maximum bandwidth
- Disk or backplane interoperability with Serial ATA gives flexibility to specify best drive for intended use
- Hot-plugging capability elimates the need to shut down sytem when adding or removing drives
- 3.0 Gbps transfer rate
- Guide pocket for plugs allows blind-mating of connector
- Space saving and better airflow in system cabinets with compact cabling and connectors
- Plastic locating pegs assures proper locating on the PCB

Reference Information

Product Specification: PS-87969-002
Packaging: Tray
Mates With: 68562 cable assembly series
Conforms To: SFF8484 standard
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Terminal Retention Force: 2N (0.45 lb) min.
Insertion Force to PCB: 100N (22.48 lb) max.
Mating Force: 45N (10.12 lb) max.
Unmating Force: 20N (4.5 lb) min.
Durability: 50 cycles

Physical

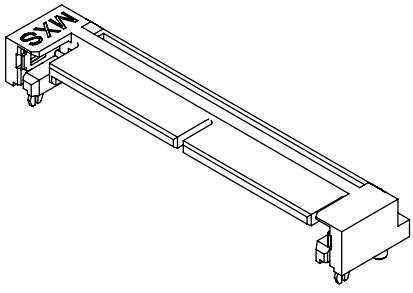
Housing: Black glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Select Gold
Solder Tail Area—Tin
Underplating: Nickel

Circuits	Order No.	Retention to PCB	Recommended PCB Thickness	Lead-free
32	87969-0001	Yes	1.60mm (.062")	Yes

1.27mm (.050") Pitch 4X SAS/SATA Internal Multi-Lane Plug

87861

Right Angle, Through Hole



Features and Benefits

- Point-to-point architecture will ensure maximum bandwidth
- Disk or backplane interoperability with Serial ATA gives flexibility to specify best drive for intended use
- Hot-plugging capability will eliminate the need to shutdown system when adding or removing drives
- 3.0 Gbps transfer rate
- Metal forklock ensures secure locking to PCB
- Guide pocket allows blind-mating of connector
- Space saving and better airflow in system cabinets with compact cabling and connectors
- Easily fit on small form factor devices
- Plastic locating pegs assures proper locating on the PCB

Reference Information

Product Specification: PS-87861-041
Packaging: Tray
Mates With: 68562 cable assembly series
Conforms To: SFF8484 standards
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Terminal Retention Force: 4.45N (1.01 lb) min.
Mating Force: 45N (10.12 lb) max.
Unmating Force: 20N (4.5 lb) min.
Durability: 50 cycles

Physical

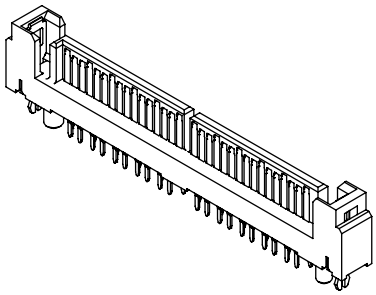
Housing: Black glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Select Gold
Solder Tail Area—Tin
Underplating: Nickel

Circuits	Order No.	Retention to PCB	Recommended PCB Thickness	Lead-free
32	87861-0011	Metal Forklock	1.60mm (.062")	Yes
	87861-0010		2.40mm (.093")	

1.27mm (.050") Pitch 4X SAS/SATA Internal Multi-Lane Plug

87959

Vertical



Features and Benefits

- Point-to-point architecture will ensure maximum bandwidth
- Disk or backplane interoperability with Serial ATA gives flexibility to specify best drive for intended use
- Hot-plugging capability elimates the need to shut down system when adding or removing drives
- 3.0 Gbps transfer rate
- Forklocks ensure secure locking to PCB
- Guide pocket for plugs allows blind-mating of connector
- Space saving and better airflow in system cabinets with compact cabling and connectors
- Plastic locating pegs assure proper locating on the PCB

Reference Information

Product Specification: PS-87862-033, PS-87959-025 and PS-87968-015
Packaging: Tray
Mates With: 68562 cable assembly series
Conforms To: SFF8484 standards
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A
Contact Resistance: 30 milliohms max
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min

Mechanical

Terminal Retention Force:
87959 and 87968—4.45N (1.01 lb) min.
87862—9N (2.02 lb) min.
Insertion Force to PCB: 87862—45N (10.12 lb) max.
Mating Force: 45N (10.12 lb) max.
Unmating Force: 20N (4.5 lb) min.
Durability: 50 cycles

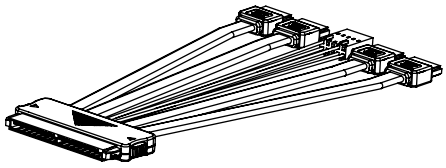
Physical

Housing: Black LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Select Gold
Solder Tail Area—Tin
Underplating: Nickel

Circuits	Order No.	Retention to PCB	Recommended PCB Thickness	Lead-free
32	87959-0001	Through Hole	1.60mm (.062")	Yes
	87959-0006		2.40mm (.093")	
	87959-0007		2.70mm (.106")	

Internal Serial Attached SCSI (SAS) 4X Cable Assemblies

68562



Features and Benefits

- Point-to-point architecture ensures maximum bandwidth by providing dedicated signal path for each device, eliminates daisy-chain slowdown and address conflicts
- Disk/backplane interoperability with SATA gives flexibility to specify best drive for intended use: SAS for transaction/online performance and reliability, Serial ATA for near line and backup/restore storage
- 3.0 Gbps transfer rate sets new standards for enterprise-class performance, second generation on track for 6.0 Gbps throughput
- Compact cabling and connectors simplify cable routing, save space and improve airflow/cooling in system cabinets, connectors easily fit on small form factor devices

Reference Information

Product Specification: PS-87862-033, PS-87824-029
Packaging: Bag
Mates With: SAS 4X (SFF-8484) Signal connector
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A
Contact Resistance: 30 milliohms max. (vertical)
40 milliohms max. (right angle)
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Housing Slip-Out Force: 90N (20.23 lb) min.
Insertion Force to PCB: 45N (10.11 lb) min. per circuit
Mating Force: 25N max.
Unmating Force: 5N (1.12 lb) min.
Durability: 500 cycles EIA 364 -13

Physical

Housing: Black PA46, Glass-filled, UL 94V-0
Terminal: Phosphor Bronze C5210 extra hard (HD6)
Plating: (A) Gold Flash
(B) Gold Plated 0.76 µm min.
(C) Gold Plated 0.38 µm min.
Solder Tail Area—Tin Alloy Plating
Underplating: Nickel

Cable Length (mm)	Order No.	Cable Description	Cable Color	Latch	Lead-free
760	68562-0002	Serial Attached SCSI (SAS) 4X to 4X SATA Internal Host Base (Controllor Base) Cable Assembly, with Sideband	Red	Yes	Yes
	68562-0003	Serial Attached SCSI (SAS) 4X to 4X SATA Internal Target Base (Backplane Base) Cable Assembly, with Sideband			
1010	68562-0014	Serial Attached SCSI (SAS) 4X Straight Internal Host Cable Assembly, with Sideband	Black		

EBBI™ 50D

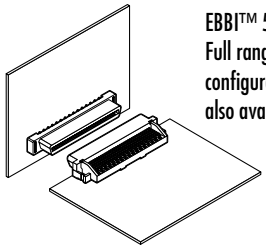
A complete solution for disk drive and device attachment in storage network systems and internal docking applications

Molex offers an expansive array of products to meet the needs of device attachment for servers, RAIDs and other disk enclosures. These interconnects are designed for various interfaces, including SCSI, Fibre Channel, SSA and custom applications.

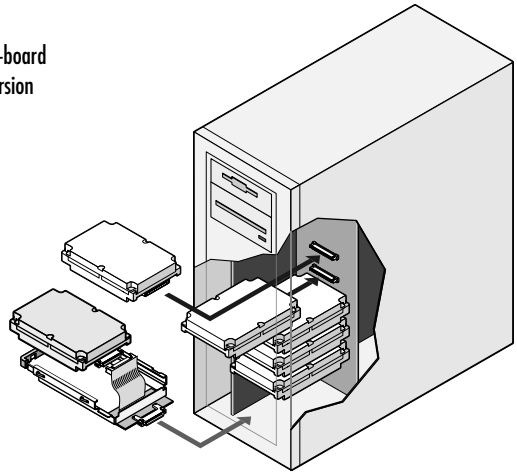
SCA-2 receptacles and plugs feature a variety of styles for every type of backplane and device. Conforming to Small Form Factor specifications, the Single Connector Attach versions feature standard or extended heights with your choice of through hole, SMT or press-fit termination methods.

For added alignment and durability, the EBBI™ 50D product family offers blind-mate versions with enhanced guide posts, used in various internal docking applications. Sequential mating options are available for hot swappability.

The EBBI 50D series of receptacles and plugs feature leaf-style contacts on 1.27mm (.050") pitch spacing in a full range of board-to-board configurations. IDT version is available for cable-to-board applications.

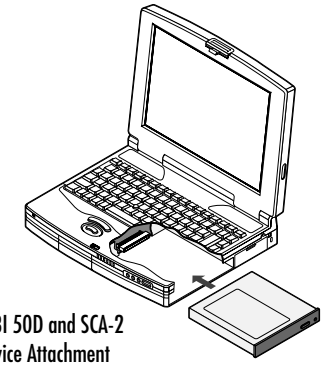


EBBI™ 50D
Full range of board-to-board configurations (IDT version also available)



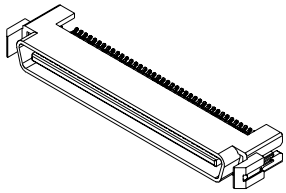
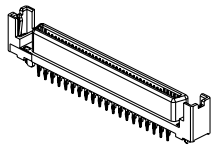
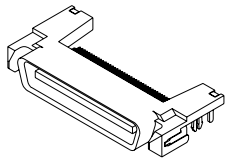
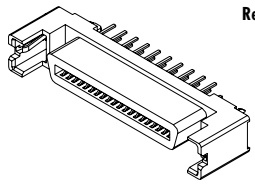
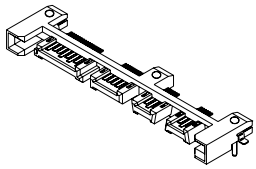
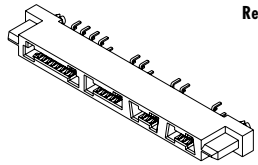
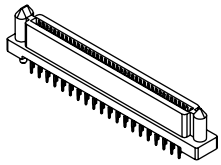
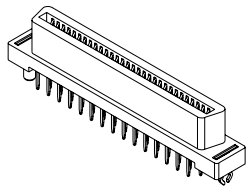
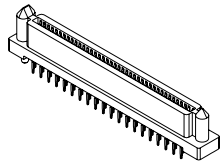
EBBI 50D and SCA-2
Disk Drive Attachment

For direct attachment to backplanes or as interposers or extenders in drive trays or carrier assemblies



EBBI 50D and SCA-2
Device Attachment

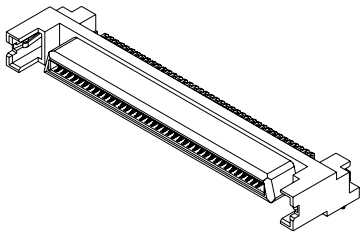
STORAGE DEVICE INTERCONNECT QUICK REFERENCE

	Device Connector	Backplane Connector
SCA-2 for SCSI drives (Enhanced 80 circuit) The 80-pin SCA-2 is an enhanced single connector attach with blind-mating guide features and integral ESD grounding contacts, allowing users to add and remove devices without taking the system off-line.	 **Plug—87012 87571 87641**	 **Receptacle—71743 71744 73826 73829 87557**
SCA-2 for Fibre Channel drives (Enhanced 40 circuit) The 40-pin version of SCA-2 supports the Fibre Channel serial interface to allow high-speed data transfer rates with the flexibility of attaching directly to the backplane or cable.	 **Plug—87012 87572 87641**	 **Receptacle—71743 71744 73826 73829 87620**
SSA/IEEE 1394 (38 circuit) Both SSA (Serial Storage Architecture) T10.1 and IEEE 1394 specify the same connector as the internal interconnect standard for disk drives and other media devices. This connector features 38 circuits in 4 unitized bays to connect disk drives and other media devices to backplanes.	 **Plug—71265**	 **Receptacle—71264**
EBBI™ Standard EBBI connectors are available in 30-120 circuit versions. Through hole and SMT board mounting options, with and without bail latches, are available for vertical and right angle applications	 **Plug—71661**	 **Plug—71660**
EBBI™ Blind-Mate This enhanced version of the EBBI series offers blind-mate guide posts that are integrated in the housing for a robust attachment of storage devices. Sequential-mating options are available.	 **Plug—71661**	 **Receptacle—71660 87537 87599 87635**

1.27mm (.050") Pitch EBBI™ 50D Receptacle

87557

Right Angle, Through Hole, SCA-2 Reverse D Mate



Circuits	Order No.	Lead-free
80	87557-1001	Yes

Features and Benefits
- Meets SCA-2 Enhanced Single Connector Attach specifications for small form factor disk drives
- ESD ground contact with integral metal hold-down for mechanical hold-down before and after processing
- Integral blind mate capabilities with ±2.00mm (.079") misalignment tolerances
- Card slot accommodates standard 1.57mm (.062") PCB

Reference Information
Product Specification: PS-87557-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 87012, 87572 and 87641
Designed In: Millimeters

Electrical
Voltage: 30V AC
Current: 1.0A
Contact Resistance: 35 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

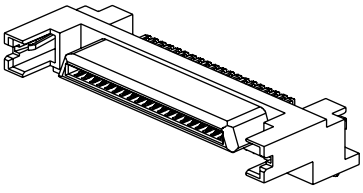
Mechanical
Contact Retention to Housing: 4.4N (.99 lb) min.
Mating Force: 70.6N (15.87 lb) max.
Unmating Force: 11.77N (2.64 lb) min.
Durability: 500 cycles

Physical
Housing: Black liquid crystal polymer (LCP) thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76mm (30µ") Gold
Solder Tail Area—2.54mm (100µ") Tin
Underplating—Nickel

1.27mm (.050") Pitch EBBI™ 50D Receptacle

87620

Right Angle, Through Hole Extended Height, SCA-2 Reverse D Mate



Circuits	Order No.	Lead-free
40	87620-1001	Yes

Features and Benefits
- Meets SCA-2 Enhanced Single Connector Attach specifications for small form factor disk drives
- Single I/O connector for storage devices interface
- ESD ground contact with integral metal hold-down for mechanical hold-down before and after processing
- Integral blind mate capabilities with ±2.00mm (.079") misalignment tolerances
- Card slot accommodates standard 1.57mm (.062") PCB

Reference Information
Product Specification: PS-87620-002
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 87012 and 87572
Designed In: Millimeters

Electrical
Voltage: 30V AC
Current: 1.0A
Contact Resistance: 35 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

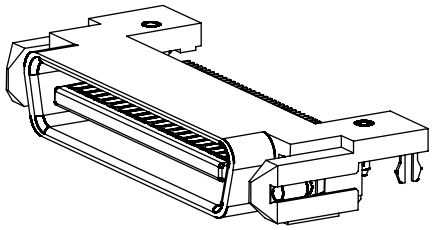
Mechanical
Contact Retention to Housing: 4.4N (.99 lb) min.
Mating Force: 35.3N (7.94 lb) max.
Unmating Force: 5.88N (1.32 lb) min.
Durability: 500 cycles

Physical
Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold
Solder Tail Area—2.54µm (100µ") Tin
Underplating—Nickel

1.27mm (.050") Pitch EBBI™ 50D Plug

87641

SMT, Right Angle SCA-2



Features and Benefits

- Meets SCA-2 Enhanced Single Connector Attach specifications for small form factor disk drives
- ESD ground contact with integral beveled metal pins for mechanical hold-down before and after processing
- D-shape mating face ensures polarization and prevents mismating
- Plastic or metal locating peg for easy placement on PCB

Reference Information

Product Specification: PS-87641-008
Packaging: Tray
Mates With: 71743, 71744, 73826, 73829 and 87557
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A
Contact Resistance: 35 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Terminal/ESD Clip Retention Force: 4.41N min.
Mating Force: 0.882N max. per pin
Unmating Force: 0.147N min. per pin
Durability: 500 cycles

Physical

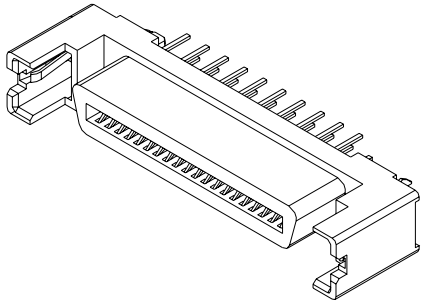
Housing: Black LCP, UL 94V-0
Contact/ESD Clip: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Select Gold
Solder Tail—Tin
Metal Locating Pin—Tin
Underplating: Nickel

Circuits	Order No.	PCB Locator	Lead-free
80	87641-1001	Plastic Peg	Yes
40	87641-1002		
80	87641-1011	Metal Peg	
40	87641-1012		

1.27mm (.050") Pitch EBBI™ 50D Receptacle

71743

Vertical SCA-2



Features and Benefits

- Meets SCA-2 Enhanced Single Connector Attach specifications for small form factor disk drives
- Metal retention clips for mechanical hold down before and after processing
- Blind-mate guide ears on ends with integral ESD grounding contacts
- Staggered "hot plug" first-mate/last-break contacts
- Mates to standard .062" PC board card edge with low insertion force
- Surface Mount Compatible

Reference Information

Product Specification: PS-73826-0000
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 87012, 87571 and 87572
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g min.
Normal Force: 90g
Durability: 500 cycles min.

Physical

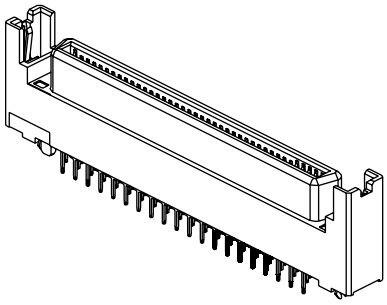
Housing: High-temperature thermoplastic, UL 94V-0
Retention Clip: Copper Alloy
Contact: Copper Alloy
Plating: 30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel on tails

Circuits	Order No.	PC Tail Length	Lead-free
40	71743-1041	2.79 (.110)	Yes
	71743-1040	3.18 (.125)	
	71743-1044	3.40 (.134)	
	71743-1045	3.75 (.148)	
80	71743-1081	2.79 (.110)	
	71743-1080	3.18 (.125)	
	71743-1084	3.40 (.134)	
	71743-1085	3.75 (.148)	

1.27mm (.050") Pitch EBBI™ 50D Receptacle

71744

Vertical, Extended Height SCA-2



Features and Benefits

- Meets SCA-2 Enhanced Single Connector Attach specifications for small form factor disk drives
- Metal retention clips for mechanical hold down before and after processing
- Blind-mate guide ears on ends with integral ESD grounding contacts
- Staggered "hot plug" first-mate/last-break contacts
- Surface Mount Compatible

Reference Information

Product Specification: PS-73826-0000
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 71661, 87012, 87571 and 87572
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g min.
Normal Force: 90g
Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0
Retention Clip: Copper Alloy
Contact: Copper Alloy
Plating: 30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel on tails

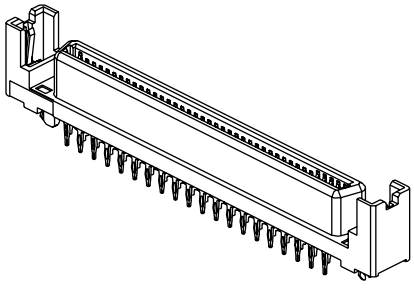
Circuits	Order No.		Lead-free
	Tail Length 3.18mm (.125")	Tail Length 3.68mm (.145")	
40	71744-1040	71744-1041	Yes
80	71744-1080	Contact Molex	

www.molex.com/product/micro/ebbi.html

1.27mm (.050") Pitch EBBI™ 50D Receptacle

73826

Vertical, Press-Fit SCA-2



Features and Benefits

- Meets SCA-2 Enhanced Single Connector Attach specifications for small form factor disk drives
- Blind-mate guide ears on ends with integral ESD grounding contacts
- Staggered "hot plug" first-mate/last-break contacts
- Mates to standard .062" PC board card edge
- Press-fit tails save in applied processing costs
- Two tail lengths available

Reference Information

Product Specification: PS-73826-0000
Application Tooling:
40 circuit—Top aligner: 62100-2502
Lower support: 62100-2501
80 circuit—Top aligner: 62100-2602
Lower support: 62100-2601
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 71661, 87012, 87571 and 87572
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g min.
Normal Force: 90g
Durability: 500 cycles min.

Physical

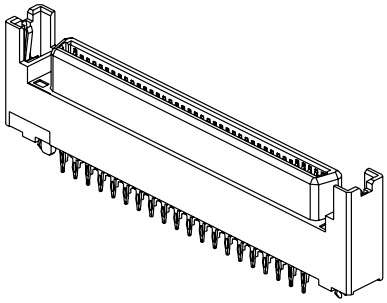
Housing: High-temperature thermoplastic, UL 94V-0
Retention Clip: Copper Alloy
Contact: Copper Alloy
Plating: 30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel on tails

Circuits	Order No.		Lead-free
	PC Tail Length 3.18mm (.125")	PC Tail Length 3.43mm (.135")	
40	73826-0002	73826-0004	RoHS compliant by exemption
80	73826-0001	73826-0003	

1.27mm (.050") Pitch EBBI™ 50D Receptacle

73829

Vertical, Extended Height Press Fit SCA-2



Circuits	Order No.	Lead-free
40	73829-0002	RoHS compliant by exemption
80	73829-0001	

Features and Benefits

- Meets SCA-2 Enhanced Single Connector Attach specifications for small form factor disk drives
- Blind-mate guide ears on ends with integral ESD grounding contacts
- Staggered "hot plug" first-mate/last-break contacts
- Mates to standard .062" PC board card edge
- Press-fit tails save in applied processing costs
- 3.18mm (.125") tail length

Reference Information

Product Specification: PS-73826-0000
Application Tooling:
40 circuit—Top aligner: 62100-2502
Lower support: 62100-2501
80 circuit—Top aligner: 62100-2602
Lower support: 62100-2601
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 71661, 87012, 87571 and 87572
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
Mating Force: 90g max. per contact
Unmating Force: 15g min. per contact
Normal Force: 90g
Durability: 500 cycles min.

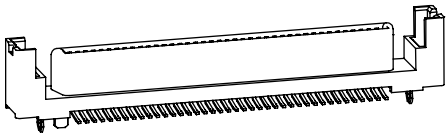
Physical

Housing: High-temperature thermoplastic, UL 94V-0
Retention Clip: Copper Alloy
Contact: Copper Alloy
Plating: 30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel on tails

1.27mm (.050") Pitch EBBI™ 50D Receptacle

71743

Vertical SCA-2, SMT



Features and Benefits

- Meets SCA-2 Enhanced Single Connector Attach specifications for small form factor disk drives
- Metal retention clips for mechanical hold down before and after processing
- Blind-mate guide ears on ends with integral ESD grounding contacts
- Staggered "hot plug" first-mate/last-break contacts
- Mates to standard .062" PC board card edge with low insertion force
- Surface Mount Compatible

Reference Information

Product Specification: PS-73826-0000
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 87012, 87571 and 87572
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g min.
Normal Force: 90g
Durability: 500 cycles min.

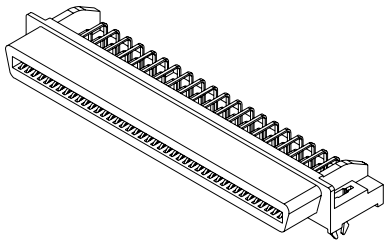
Physical

Housing: High-temperature thermoplastic, UL 94V-0
Retention Clip: Copper Alloy
Contact: Copper Alloy
Plating: 30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel on tails

Circuits	Order No.		Lead-free
	Retention Clip Length 2.49mm (.098")	Retention Clip Length 3.00mm (.118")	
40	71743-4040	71743-4240	Yes
80	71743-4080	71743-4280	

1.27mm (.050") Pitch EBBI™ 50D Receptacle

87552
Right Angle



Circuits	Order No.	Lead-free
50	87552-0507	Yes
68	87552-0687	
80	87552-0807	

Features and Benefits
- Sizes 50, 68 and 80 circuits
- High-density contacts with .050" spacing on 4 rows
- Leaf-style interface provides high durability
- Metal forklock provides excellent PCB retention

Reference Information
Product Specification: PS 87552-006
Packaging: Tray
Mates With: 71661
Designed In: Millimeters

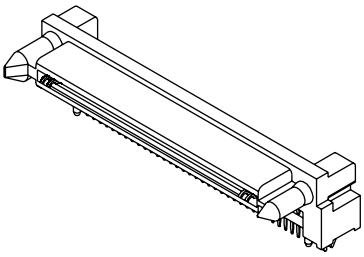
Electrical
Voltage: 30V
Current: 1.0A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 0.45kg min.
Mating Force: 70.6N (15.87 lb) max.
Unmating Force: 11.77N (2.64 lb) min.
Durability: 500 cycles min.

Physical
Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: 0.76µm min. select Gold

1.27mm (.050") Pitch EBBI™ 50D Receptacle

87537
Right Angle, Blind Mate Through Hole



Circuits	Order No.	Lead-free
68	87537-8811	Yes
	87537-8812	

Features and Benefits
- Parallel, perpendicular and in-line interconnections
- First-mate/last-break terminal
- Polarized guide posts on ends provide 2.00mm (.079") radial lead-in for blind mating
- Metal forklock provides excellent mechanical PCB retention before and after processing
- Card slot accommodates standard 1.57mm (.062") PCB

Reference Information
Product Specification: PS-87537-0001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 71661-25XX and 71661-7XXX
Designed In: Millimeters

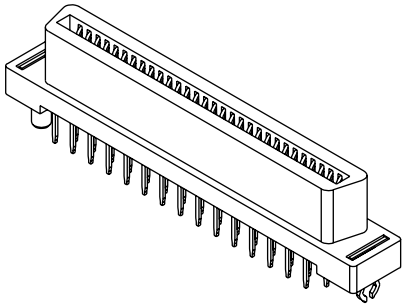
Electrical
Voltage: 30V AC
Current: 1.0A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 4.4N (.99 lb) min.
Mating Force: 58.84N (13.23 lb) max.
Unmating Force: 9.8N (2.20 lb) min.
Durability: 2000 cycles

Physical
Housing: LCP liquid crystal polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold
Solder Tail Area—100µm (2.54µ") Tin
Underplating—Nickel

1.27mm (.050") Pitch EBBI™ 50D Receptacle

71660
Vertical



Features and Benefits
- Polarized D-shaped leaf-contact connector
- Chamfered lead-in on tails for PCB mounting
- Metal retention clips for mechanical hold down before and after processing
- Low profile—12.50mm (.492") stack height for parallel board packaging
- Mates to standard 1.60mm (.062") PCB card edge with low insertion force
- Surface Mount Compatible

Reference Information
Product Specification: PS-71660
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 71661
Designed In: Inches

Electrical
Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

Mechanical
Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g min.
Normal Force: 90g
Durability: 500 cycles min.

Physical
Housing: High-temperature thermoplastic, UL 94V-0
Retention Clip: Copper Alloy
Contact: Copper Alloy
Plating: 30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel on tails

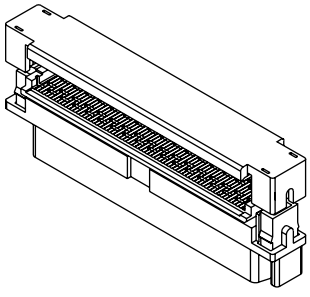
Circuits	Order No.			Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.40mm (.134")	PC Tail Length 3.94mm (.155")	
30	15-92-1430	15-92-1030	71660-1630	Yes
40	15-92-1440	15-92-1040	71660-1640	
50	15-92-1450	15-92-1050	71660-1650	
50*		15-92-1550		
60	15-92-1460	15-92-1060	71660-1660	

Circuits	Order No.			Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.40mm (.134")	PC Tail Length 3.94mm (.155")	
68	15-92-1468	15-92-1068	71660-1668	Yes
80	15-92-1480	15-92-1080	71660-1680	
100	15-92-1500	15-92-1100	71660-1700	
120	15-92-1520	15-92-1120	71660-1720	
130	15-92-1530	15-92-1130	71660-1730	

* Circuit numbers 2-4, 8-11, 14, 17, 20, 23, 26-29, 31-32, 34, 36, 39, 42, 45, 48-49 are advanced terminals for first-mate/last-break mating

1.27mm (.050") Pitch EBBI™ 50D Receptacle

71660
Vertical
IDT



Features and Benefits
- Polarized D-shaped leaf-contact connector for wire-to-board packaging
- Terminates to 30 AWG solid or stranded .025" ribbon cable or laminated discrete wire cable (including high-performance FEP cable)
- Card slot accommodates standard .062" PCB
- Polarizing key orients connector to PCB

Reference Information
Product Specification: PS-71662
Packaging: Tray (subassembly) and bag (cover)
Tooling Information: Ribbon cable manual press and tool kit
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 71661
Designed In: Inches

Electrical
Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

Mechanical
Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g min.
Normal Force: 90g
Durability: 500 cycles min.

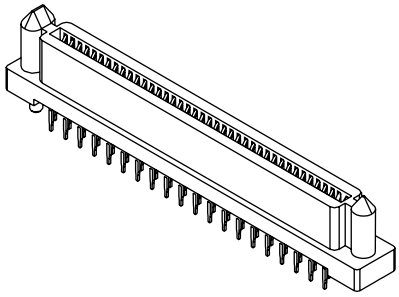
Physical
Housing: Thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: 30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel on tails
Wire Range: 30 AWG solid or stranded Tinned Copper

Circuits	Order No.	Lead-free
30	71660-3530	Yes
40	71660-3540	
50	71660-3550	
60	71660-3560	
68	71660-3568	
80	71660-3580	

1.27mm (.050") Pitch EBBI™ 50D Receptacle

71660

Vertical, Blind Mate



Features and Benefits

- Polarized guide posts on ends provide generous 2.0mm radial lead-in for blind mating
- Chamfered lead-in on tails for PCB mounting
- Press-fit retention pegs for mechanical hold down before and after processing
- Mates to standard 1.60mm (.062") PCB card edge
- First-mate/last-break terminal option available
- Surface Mount Compatible

Reference Information

Product Specification: PS-71660
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 71661-7XXX and 71661-25XX
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g min.
Normal Force: 90g
Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: 30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel on tails

Circuits	Order No.			Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.40mm (.134")	PC Tail Length 3.94mm (.155")	
30	71660-7030	71660-7230	71660-7630	Yes
40*	71660-7040	71660-7240	71660-7640	
50*	71660-7050	71660-7250	71660-7650	
60	71660-7060	71660-7260	71660-7660	
68*	71660-7068	71660-7268	71660-7668	

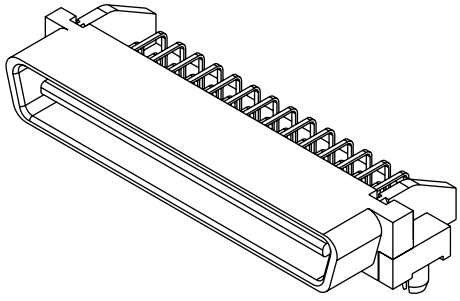
Circuits	Order No.			Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.40mm (.134")	PC Tail Length 3.94mm (.155")	
80*	71660-7080	71660-7280	71660-7680	Yes
100	71660-7100	71660-7300	71660-7700	
120	71660-7120	71660-7320	71660-7720	
130	71660-7130	71660-7330	71660-7730	

* Contact Molex for part numbers with advanced terminals for first-mate/last-break mating

1.27mm (.050") Pitch EBBI™ 50D Plug

71661

Right Angle



Features and Benefits

- Polarized D-shaped leaf-contact connector for perpendicular board packaging
- Chamfered lead-in on tails for PCB mounting
- Press-fit retention pegs for mechanical hold down before and after processing
- Surface Mount Compatible

Reference Information

Product Specification: PS-71660
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 71660 and 87552
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g min.
Normal Force: 90g
Durability: 500 cycles min.

Physical

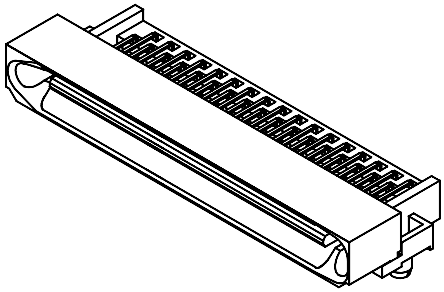
Housing: High-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: 30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel on tails

Circuits	Order No.		Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.18mm (.125")	
30	71661-2030	71661-2330	Yes
40	71661-2040	71661-2340	
50	71661-2050	71661-2350	
60	71661-2060	71661-2360	
68	71661-2068	71661-2368	

Circuits	Order No.		Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.18mm (.125")	
80	71661-2080	71661-2380	Yes
100	71661-2100	71661-2400	
120	71661-2120	71661-2420	
130	71661-2130	71661-2430	

1.27mm (.050") Pitch EBBI™ 50D Plug

71661
Right Angle, Blind Mate



Features and Benefits
- Polarized guide features provide generous 2.0mm radial lead-in for blind mating
- Chamfered lead-in on tails for PCB mounting
- Press-fit retention pegs for mechanical hold down before and after processing
- Surface Mount Compatible
- 2.79mm (.110") tail length

Reference Information
Product Specification: PS-71660
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 71660-7XXX, 87537
Designed In: Inches

Electrical
Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

Mechanical
Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g min.
Normal Force: 90g
Durability: 500 cycles min.

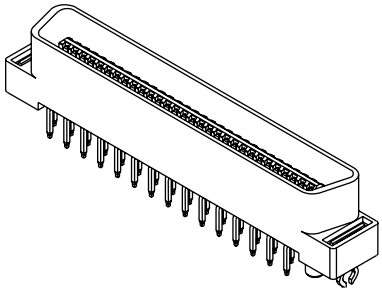
Physical
Housing: High-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: 30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel on tails

Circuits	Order No.	Lead-free
30	Contact Molex	Yes
40	71661-2540	
50	Contact Molex	
60	Contact Molex	
68	71661-2568	
	71661-2518*	
80	71661-2580	
100	71661-2511	
130	71661-2513	

* 3.18mm (.125") tails for thicker boards

1.27mm (.050") Pitch EBBI™ 50D Plug

71661
Vertical



Features and Benefits
- Polarized D-shaped leaf-contact connector
- Metal retention clips for mechanical hold down before and after processing
- Low profile—12.50mm (.492") stack height for parallel board packaging
- Surface Mount Compatible

Reference Information
Product Specification: PS-71660
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 71660 and 87552
Designed In: Inches

Electrical
Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

Mechanical
Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g min.
Normal Force: 90g
Durability: 500 cycles min.

Physical
Housing: High-temperature thermoplastic, UL 94V-0
Retention Clip: Copper Alloy
Contact: Copper Alloy
Plating: 30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel on tails

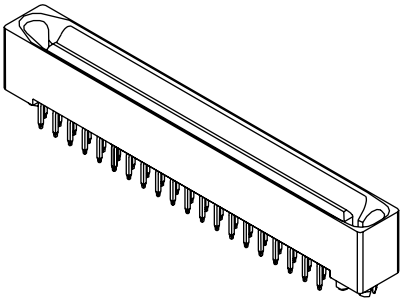
Circuits	Order No.		Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.40mm (.134")	
30	15-92-2430	15-92-2030	Yes
40	15-92-2440	15-92-2040	
50	15-92-2450	15-92-2050	
60	15-92-2460	15-92-2060	
68	15-92-2468	15-92-2068	

Circuits	Order No.		Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.40mm (.134")	
80	15-92-2480	15-92-2080	Yes
100	15-92-2500	15-92-2100	
120	15-92-2520	15-92-2120	
130	15-92-2530	15-92-2130	

1.27mm (.050") Pitch EBBI™ 50D Plug

71661

Vertical, Blind Mate



Features and Benefits

- Polarized guide features provide generous 2.0mm radial lead-in for blind mating
- Press-fit retention pegs for mechanical hold down before and after processing
- Low profile—12.50mm (.492") stack height for parallel board stacking
- Surface Mount Compatible

Reference Information

Product Specification: PS-71660
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 71660-7XXX
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g min.
Normal Force: 90g
Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: 30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel on tails

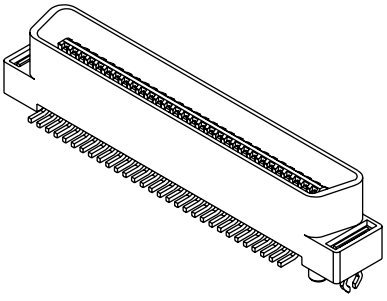
Circuits	Order No.		Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.40mm (.134")	
30	71661-7030	71661-7230	Yes
40	71661-7040	71661-7240	
50	71661-7050	71661-7250	
60	71661-7060	71661-7260	
68	71661-7068	71661-7268	

Circuits	Order No.		Lead-free
	PC Tail Length 2.79mm (.110")	PC Tail Length 3.40mm (.134")	
80	71661-7080	71661-7280	Yes
100	71661-7100	71661-7300	
120	71661-7120	71661-7320	
130	71661-7130	71661-7330	

1.27mm (.050") Pitch EBBI™ 50D Plug

74139

Vertical SMT



Features and Benefits

- Polarized D-shaped leaf-contact connector for parallel board packaging
- SMT high-temperature 94V-0 thermoplastic
- Metal retention clips for mechanical hold down before and after processing
- SMT terminals in-line on 1.27mm (.050") spacing for easy processing

Reference Information

Product Specification: PS-71660
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 71660 and 87552
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g min.
Normal Force: 90g
Durability: 500 cycles min.

Physical

Housing: High-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: 30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel on tails

Circuits	Order No.	Lead-free
30	74139-5030	Yes
	74139-5031*	
40	74139-5040	
50	74139-5050	
60	74139-5060	

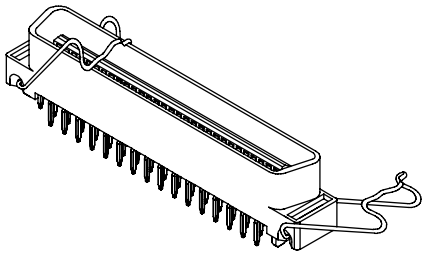
Circuits	Order No.	Lead-free
68	74139-5068	Yes
	74139-5069*	
80	74139-5080	
100	74139-5100	

* Longer clips for use with 2.95mm (.116") boards

1.27mm (.050") Pitch EBBI™ 50D Plug

71661

Vertical, with Bail Latches



Features and Benefits

- Bail latches provide secure mounting to mating EBBI receptacle
- Polarized D-shaped, leaf-contact connector
- Metal retention clips for mechanical hold down before and after processing
- Low profile—12.50mm (.492") stack height for parallel board packaging
- Surface Mount Compatible

Reference Information

Product Specification: PS-71660
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 71660 and 87552
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g max.
Normal Force: 90g
Durability: 500 cycles min.

Physical

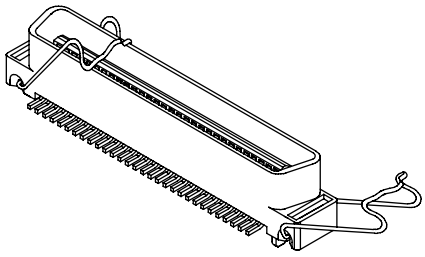
Housing: High temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Board Locks: Copper Alloy
Bail Latches: Stainless Steel
Plating: Contact Area—30µ" gold
Solder Tail Area—Tin
Underplating—Nickel

Circuits	Order No.	Tail length	Lead-free
30	71661-1530	2.79mm (.110")	Yes
60	71661-1560		
	71661-1561	3.40mm (.134")	
68	71661-1568	2.79mm (.110")	
	71661-1569	3.40mm (.134")	
80	71661-1580	2.79mm (.110")	

1.27mm (.050") Pitch EBBI™ 50D Plug

74139

Vertical, SMT, with Bail Latches



Features and Benefits

- Bail latches provide secure mounting to mating EBBI receptacle
- Polarized D-shaped, leaf-contact connector for parallel board packaging
- SMT high temperature thermoplastic

Reference Information

Product Specification: PS-71660
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-239A
Mates With: 71660 and 87552
Designed In: Inches

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention to Housing: 500g min.
Mating Force: 90g max.
Unmating Force: 15g max.
Normal Force: 90g
Durability: 500 cycles min.

Physical

Housing: High temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Board Locks: Copper Alloy
Bail Latches: Stainless Steel
Plating: Contact Area—30µ" Gold
Solder Tail Area—Tin
Underplating—Nickel

Circuits	Order No.	Lead-free
30	74139-5530	Yes
60	74139-5660	
68	74139-5568	
	74139-5569*	
100	74139-5600	

*Longer clips for use with 2.95mm (.116") boards

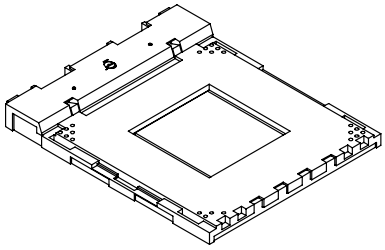
Micro PGA Sockets ..... J-2 to J-3

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

1.27mm (.050") Pitch Micro PGA Socket

47387

Key Version B
Ball Grid Array (BGA)
Solder Mount



Features and Benefits
- Accepts Mobile Pentium® 4 and Mobile Celeron® Processor-M series
- Ball Grid Array (BGA) solder balls are self-centering and avoid the problem of bent tails
- LCP housing and cover with profile height of 3.30mm (.130")
- Dual-beam chamfered contact design provides low insertion force and good electrical performance
- Stainless steel cam retainer protects plastic cover from wear

Reference Information
Product Specification: PS-51248-020
Packaging: Tray or tape on reel
Designed In: Millimeters

Electrical
Voltage: 100V
Current: 0.5A
Contact Resistance: 25 milliohms max.
Dielectric Withstanding Voltage: 360V AC
Insulation Resistance: 800 Megohms min.

Mechanical
Durability: 50 cycles

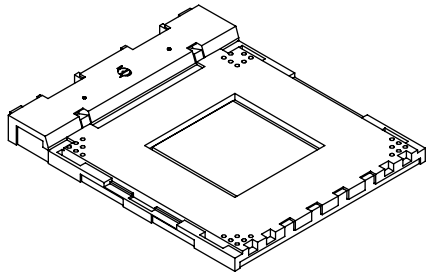
Physical
Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.25µm (10µ") Gold
Solder Tail Area—Tin/Silver/Copper
Underplating: Nickel

Circuits	Order No.	Pick-and-Place Type	Packaging	Lead-free
478	47387-4781	Pick-and-Place Cover	Tray	Yes
	47387-4782	Mylar		
	47387-4783	Pick-and-Place Cover	Tape on Reel	
	47387-4784	Mylar		

1.27mm (.050") Pitch Micro PGA Socket

500210

Key Version C
Ball Grid Array (BGA)
Solder Mount



Features and Benefits
- Accepts Mobile Pentium® 4 and Mobile Celeron® Processor-M series
- Ball Grid Array (BGA) solder balls are self-centering and avoid the problem of bent tails
- LCP housing and cover with profile height of 3.30mm (.130")
- Dual-beam chamfered contact design provides low insertion force and good electrical performance
- Stainless steel cam retainer protects plastic cover from wear

Reference Information
Product Specification: PS-51248-005
Packaging: Tray or tape on reel
Designed In: Millimeters

Electrical
Voltage: 100V
Current: 0.5A
Contact Resistance: 25 milliohms max.
Dielectric Withstanding Voltage: 360V AC
Insulation Resistance: 800 Megohms min.

Mechanical
Durability: 50 cycles

Physical
Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—10µ" Gold
Solder Tail Area—Tin/Silver/Copper
Underplating: Nickel

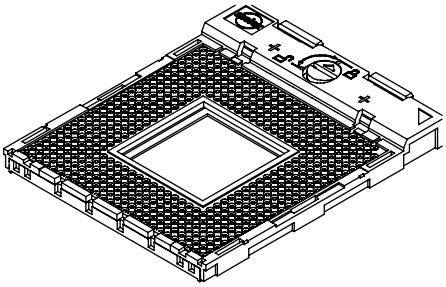
Circuits	Order No.	Pick-and-Place Type	Packaging	Lead-free
478	500210-4785	Mylar	Tape on Reel	Yes
	500210-4786	Pick-and-Place Cover	Tray	
	500210-4787		Tape on Reel	

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1.27mm (.050") Pitch Micro PGA Socket

51248

Ball Grid Array (BGA) Solder Mount 479 Circuits



Features and Benefits

- Accepts Mobile Pentium® 4 and Mobile Celeron® Processor-M series
- Ball Grid Array (BGA) solder balls are self-centering and avoid the problem of bent tails
- LCP housing and cover with profile height of 3.30mm (.130")
- Dual-beam chamfered contact design provides low insertion force and good electrical performance
- Stainless steel cam retainer protects plastic cover from wear

Reference Information

Product Specification: PS-51248-005 or PS-51248-020
Packaging: Tape on reel
Designed In: Millimeters

Electrical

Voltage: 100V
Current: 0.5A
Contact Resistance: 25 milliohms max.
Dielectric Withstanding Voltage: 360V AC
Insulation Resistance: 800 Megohms min.

Mechanical

Durability: 50 cycles

Physical

Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—10µ" Gold
Solder Tail Area—Tin/Silver/Copper
Underplating: Nickel

Circuits	Order No.	Pick-and Place-Type	Packaging	Lead-free
479	51248-4799	Pick-and-Place Cover	Tape on Reel	Yes

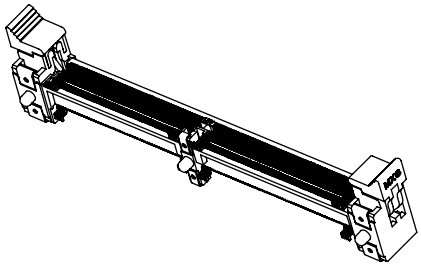
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DDR2 miniDIMM Sockets K-2
DDR2 DIMM Sockets K-2
Fully Buffered DIMM Sockets K-3
DDR2 DIMM Sockets K-4
DDR DIMM Socket K-5
DIMM 8-Byte Sockets K-6

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

0.60mm (.0236") Pitch DDR2 miniDIMM Socket

78001/87782/87783/87918
SMT



Features and Benefits
- Small pitch permits maximum utilization of space available on the PCB
- Small form factor allows miniDIMM to fit into slim enclosures
- Surface Mount Technology for easy processing and ability to utilize both sides of PCB
- Solder pads at both ends and center of housing provide additional mechanical strength after soldering
- Robust dual latches provide excellent module retention and easy ejection of module
- Accepts JEDEC MO-244 and MO-258 insures 100% industry compatibility
- Polarization keys assure correct module orientation
- Designated pick-and-place area allows for automated placement on PCB

Reference Information
Product Specification: PS-78001-001, PS-87782-027, PS-87783-001 and PS-87918-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: See table
Designed In: Millimeters

Electrical
Voltage: 30 VRMS at 60 Hz
Current: 1.0A at 30˚C temperature rise
Contact Resistance: 87782—30 milliohms max.
87783—40 milliohms max.
78001 and 87918—50 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

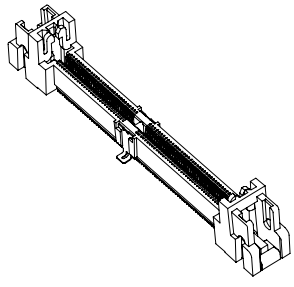
Mechanical
Contact Retention to Housing: 3N min.
Mating Force: 200 circuits—195N
244 circuits—238N
Latch Actuation Force: 45N max. per latch
Durability: 25 cycles

Physical
Housing: Black LCP, UL 94V-0
Latches : Off-white high-temperature nylon, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold
Solder Tail Area—Tin
Underplating: Nickel

Circuits	Voltage Key	Order No.				Mates With	Lead-free
		Reverse Right Angle	Vertical	22.5˚ Angle Surface Mount	Right Angle		
244	1.8V	78001-1244	87782-2001	87783-0001	87918-0001	JEDEC MO-244 Modules	Yes
	2.5V	78001-2244	87782-2002	87783-0002	87918-0002		
200	1.8V	78001-1200	87782-2201	87783-0201	87918-0201	JEDEC MO-258 Modules	
	2.5V	78001-2200	87782-2202	87783-0202	87918-0202		

0.60mm (.0236") Pitch DDR2 miniDIMM Socket

87838
Vertical, SMT



Features and Benefits
- Small pitch permits maximum utilization of space available on the PCB
- Small form factor allows miniDIMM to fit into slim enclosures
- Surface Mount Technology for easy processing and ability to utilize both sides of PCB
- Solder pads at both ends and center of housing provide additional mechanical strength after soldering
- Robust dual latches provide excellent module retention and easy ejection of module
- Polarization keys assure correct module orientation
- Pick-and-place cap allows for automated placement on PCB

Reference Information
Product Specification: PS-87838-002
Packaging: Embossed tape on reel
UL File No.: E29179
CSA File No.: LR19980
Mates With: 1.0mm thick memory module
Designed In: Millimeters

Electrical
Voltage: 30 VRMS at 60 Hz
Current: 1.0A at 30˚C temperature rise
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

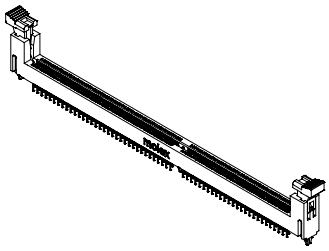
Mechanical
Mating Force: 136.5N
Durability: 25 cycles

Physical
Housing: Black LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold
Solder Tail Area—Tin
Underplating: Nickel

Circuits	Order No.	Lead-free
140	87838-0002	Yes

1.00mm (.039") Pitch Fully Buffered DIMM Socket

48206
Vertical



Features and Benefits
- Accepts JEDEC MO-256 module for 100% industry compatibility
- Dual ejector latches for easy module removal with features to minimize micro motion
- Beveled metal pin provides PCB retention during and after soldering
- Enables hot plug and hot swap
- Simple through-hole design supports low-cost board assembly process

Reference Information
Product Specification: PS-48206-001
Packaging: Tray
Mates With: JEDEC MO-256 modules
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 0.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Insertion Force to PCB: 66.64N
Mating Force: 98.00N
Unmating Force: 2.94N
Durability: 10 cycles

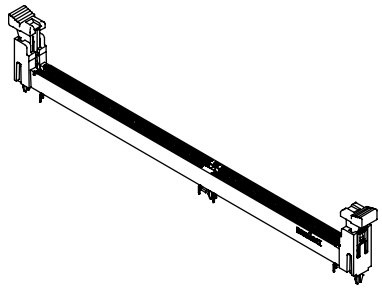
Physical
Housing: Glass-filled PA polymide (nylon), UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—See table
Solder Tail Area—100µ" Tin
Underplating: 50µ" Nickel
PCB Thickness: 1.60mm (.062")

Circuits	Order No.	Housing	Latch Color	Plating Contact	PC Tail Length	Lead-free
240	48206-0001	Nylon 4/6, Glass-Filled	White	15µ" Gold	2.67mm (.105")	Yes
	48206-0002			30µ" Gold	2.67mm (.105")	
	48206-0003			15µ" Gold	3.18mm (.125")	
	48206-0004			30µ" Gold	3.18mm (.125")	
	48206-0005			Gold Flash	2.67mm (.105")	
	48206-0006				3.18mm (.125")	
	48206-0101		Black	15µ" Gold	2.67mm (.105")	
	48206-0102			30µ" Gold	2.67mm (.105")	
	48206-0103			15µ" Gold	3.18mm (.125")	

Circuits	Order No.	Housing	Latch Color	Plating Contact	PC Tail Length	Lead-free
240	48206-0104	Nylon 4/6, Glass-Filled	Black	30µ" Gold	3.18mm (.125")	Yes
	48206-0105			Gold Flash	2.67mm (.105")	
	48206-0106				3.18mm (.125")	
	48206-9001	Nylon 6/6, Glass-Filled	White	15µ" Gold	2.67mm (.105")	
	48206-9002			30µ" Gold	2.67mm (.105")	
	48206-9003			15µ" Gold	3.18mm (.125")	
	48206-9004			30µ" Gold	3.18mm (.125")	
	48206-9005			Gold Flash	2.67mm (.105")	
	48206-9006				3.18mm (.125")	

1.00mm (.039") Pitch Fully Buffered DIMM Socket

78061/87917



Features and Benefits
- High-temperature thermoplastic housing withstands lead-free solder processing
- 100% industry compatibility
- Dual ejector latches ensure easy module insertion and removal with minimal micro motion
- Built in end key design ensures correct insertion of fully-buffered memory module
- Forklocks provide proper socket to PCB alignment and retention during and after soldering

Reference Information
Product Specification: PS-78061-001, PS-87917-001
Packaging: Tray
UL File No.: E29179 (87917)
CSA File No.: LR19980 (87917)
Mates With: 1.27mm (0.5") thickness module card
Designed In: Millimeters

Electrical
Voltage: 30V AC (mc)/DC
Current: 1.0A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.
Voltage Key: 1.8V center

Mechanical
Contact Retention to Housing: Contact—3N min.
Forklock—13N min.
Insertion Force to PCB: 66.5N
Mating Force: 87917—205.0N max.
78061—179.5N max.
Latch Actuation Force: 44N
Durability: 25 Cycles

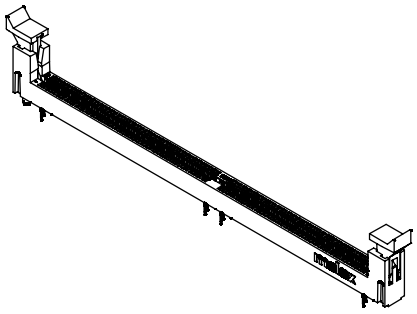
Physical
Housing: See table
Contact: Copper Alloy
Plating: Contact Area—See table
Solder Tail Area—Tin
Underplating: Nickel

Circuits	Order No.		Entry	Mounting	Housing	PCB Thickness	Latch Color	Lead-free
	0.38µm (15µ") Gold	0.76µm (30µ") Gold						
240	78061-0001	78061-0011	Vertical	Through Hole	Black glass-filled nylon, UL 94V-0	1.60mm (.063")	Off-white	Yes
	78061-0002	78061-0012				2.40 mm (.094")		
	78061-0051	78061-0061				1.60mm (.063")	Black	
	78061-0052	78061-0062				2.40 mm (.094")		
	87917-0001	87917-0062	28.5° Angle	Through Hole	Black glass-filled LCP, UL 94V-0	1.60mm (.063")	Off-white	
	87917-0012	87917-0011				2.40 mm (.094")		

1.00mm (.039") Pitch DDR2 DIMM Socket

87705/87746/87966

Vertical



Features and Benefits

- High-temperature thermoplastic housing withstands lead-free solder processing
- Complies with all JEDEC standards, ensures 100% industry compatibility
- Dual ejector latches for easy module insertion and removal with minimal micro-motion
- Added contact wipe for improved contact reliability between socket and module card
- Forklocks or plastic pegs provide proper socket to PCB alignment, and secure PCB retention during and after soldering
- SMT termination (87966 only) allows for space saving and added freedom in the design of the PCB

Reference Information

Product Specification: PS-87705-002, PS-87746-002 and PS-87966-001
UL File No.: E29179 (87705, 87746)
CSA File No.: LR19980 (87705, 87746)
Mates With: 1.27mm (0.50") thick memory modules
Designed In: Millimeters

Electrical

Voltage: 30V AC (RMS)/DC
Current: 87966—1.0A
87746, 87705—0.5A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 87705, 87746—3.0N min.
87966—2.5N min.
Insertion Force to PCB: 87705—66.7N max.
87746—44.4N max. per pin
Mating Force: 87705, 87746—155.9N max.
87966—179.5N max.
Unmating Force: 89N
Durability: 25 cycles

Physical

Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—See table
Solder Tail Area—Tin
Underplating: Nickel

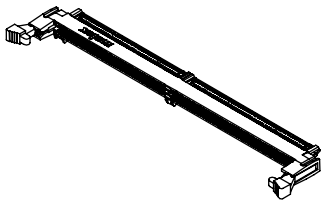
Circuits	Order No.	PCB Mounting	PCB Retention	Plating Thickness	PCB Thickness	Latch Color	Lead-free
240	87705-0021	Through Hole	Forklock	0.38µm (15µ")	1.60mm (.063")	Off-white	Yes
	87705-1021			0.38µm (15µ")	2.40mm (.094")		
	87705-0051			0.76µm (30µ")	1.60mm (.063")		
	87705-1051			0.76µm (30µ")	2.40mm (.094")		
	87705-9101			0.76µm (30µ")	1.60mm (.063")	Black	
	87746-5211	Press-Fit	Press-fit Metal Pin	0.76µm (30µ")	2.40mm (.094")	Clear	
	87746-5311			0.76µm (30µ")	1.60mm (.063")		

Circuits	Order No.	PCB Mounting	PCB Retention	Plating Thickness	PCB Thickness	Latch Color	Lead-free
240	87746-5201	Press-Fit	Press-fit Metal Pin	0.38µm (15µ")	2.40mm (.094")	Clear	Yes
	87746-5301			0.38µm (15µ")	1.60mm (.063")		
	87746-8011			0.76µm (30µ")	2.40mm (.094")	Off-white	
	87746-9011			0.76µm (30µ")	1.60mm (.063")		
	87746-8001			0.38µm (15µ")	2.40mm (.094")		
	87746-9001			0.38µm (15µ")	1.60mm (.063")		
	87966-0001	SMT	Forklock	0.76µm (30µ")		Black	

1.00mm (.039") Pitch DDR2 DIMM Angle Socket

87803

Through Hole, Forklock Version



Features and Benefits

- High-temperature thermoplastic housing withstands lead-free solder processing
- Complies with all JEDEC standards, ensures 100% industry compatibility
- Dual ejector latches for easy module insertion and removal with minimal micro-motion
- Added contact wipe for improved contact reliability between socket and module card
- Forklocks ensure secure PCB retention during and after soldering
- Plastic locating pegs assures proper socket to PCB

Reference Information

Product Specification: PS-87803-003, PS-87919-006 and PS-87916-001
UL File No.: E29179 (87803)
CSA File No.: LR19980 (87803)
Mates With: 1.27mm (0.50") thick memory modules
Designed In: Millimeters

Electrical

Voltage: 30V AC (RMS)/DC
Current: 0.5A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 3.0N min.
Insertion Force to PCB: 66.5N max.
Mating Force: 205N max.
Unmating Force: 89N min.
Durability: 25 cycles

Physical

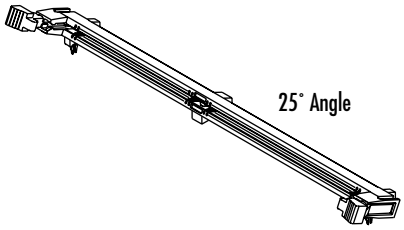
Housing: Black glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—See table
Solder Tail Area—Tin
Underplating: Nickel

Circuits	Order No.	Entry	Plating Thickness	Recommended PCB Thickness	Latch Color	Lead-free
240	87803-0002	25˚ Angle	0.38µm (15µ")	1.60mm (.063")	Off-white	Yes
	87803-0012		0.38µm (15µ")	2.40mm (.094")		
	87803-0102		0.76µm (30µ")	1.60mm (.063")		
	87803-0112		0.76µm (30µ")	2.40mm (.094")		

1.27mm (.050") Pitch DDR DIMM Socket

87623/87639

Low Profile Single Key, with Forklocks and Plastic Peg



Features and Benefits

- Accepts standard JEDEC MO-206 modules
- Dual ejector latches align modules for insertion and provide an audible click when it is in the closed position
- Forklocks provide PCB retention during and after soldering
- Baseplate ensures PC tail true position
- Tight stacking distances of 22.86mm (.900") for typical SOJ package and 13.34mm (.525") for TSOP package
- Several options for keying and solder tail length

Reference Information

Product Specification: PS-87623-002
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: JEDEC standard 1.27mm (.050") thick PCB module
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 1.0A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 0.78N (0.175 lb) per contact max.
Contact Retention to Housing: 3.92N min.
Durability: 25 cycles max.

Physical

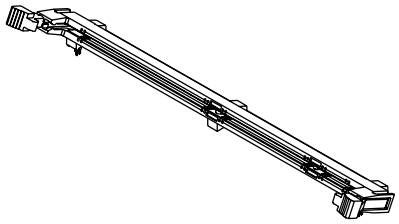
Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Selective Gold (See Table)
Solder Tail Area—Tin/Lead
Underplating—Nickel

Circuits	Entry	Order No.		Voltage Key	PC Tail Length	Forklock Length	Peg Length	Lead-free
		0.38µm (15µ") Gold	0.76µm (30µ") Gold					
184	25˚ Reverse Angle	87639-1001	87639-1100	Right (2.5V)	2.79 (.110)	4.83 (.190)	3.94 (.155)	Yes
		87639-1010	87639-1110		3.18 (.125)			
		87639-1011						
	25˚ Angle	87623-2001	87623-2101	Left (2.5V)	2.79 (.110)	3.18 (.125)	3.18 (.125)	
		87623-2011	87623-2111		3.18 (.125)	3.94 (.155)	4.83 (.190)	
		87623-2012	87623-2115			3.18 (.125)	3.18 (.125)	
		87623-2013	87623-2113			4.42 (.174)	4.83 (.190)	

1.27mm (.050") Pitch DIMM 8-Byte Socket

87587

168 Circuit, Low Profile (25°) Multi-Key, with Forklocks and Plastic Peg



Features and Benefits

- Accepts Standards JEDEC MO-161 modules
- Dual ejector latches align modules for insertion and provide an audible click when in the closed position
- Forklocks provide PCB retention during and after soldering
- Base-plate ensures PC tail true position
- Tight stacking distances: 22.86mm (.900") for typical SOJ packaging, 13.34mm (.525") for TSOP packaging
- Several options for keying and solder-tail length

Reference Information

Product Specification: PS-87587-007
Packaging: Tray
Mates With: JEDEC standard 1.27mm (.050") thick PCB module
Designed In: Millimeters

Electrical

Voltage: 100V
Current: 1.0A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 0.78N
Contact Retention to Housing: 3.92N min.
Durability: 25 cycles min.

Physical

Housing: Black, high-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact—Gold or Gold-compatible over Nickel
Solder Tail—Tin over Nickel

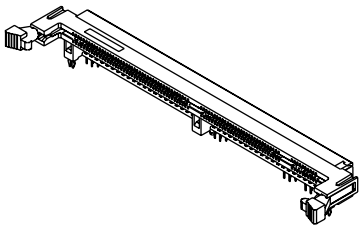
Circuits	Order No.		Function Key	Voltage Key	PC Tail Length	Recommended PCB Thickness	Lead-free
	15µ" Select Gold	30µ" Select Gold					
168	87587-2048	87587-2148	Left	Center (3.3V)	2.79 (.110)	2.19 (.086) max.	Yes
	87587-2049	87587-2149	Center				
	87587-2050	87587-2150	Right				
	87587-2057	87587-2157	Left		3.18 (.125)	2.58 (.101) max.	
	87587-2058	87587-2158	Center				
	87587-2059	87587-2159	Right				

www.molex.com/product/sockets/dimm.html

1.27mm (.050") Pitch DIMM 8-Byte Socket

87609/87587

168 Circuit, Right Angle, Multi-key, with Forklocks and Plastic Pegs



Features and Benefits

- Accepts JEDEC MO-161 modules for 100% industry compatibility
- Dual ejector latches align modules for insertion and ease module removal
- Robust pre-loaded contacts improved reliability
- Optional voltage and function keying

Reference Information

Product Specification: PS-87609-002
Packaging: Tray
Mates With: JEDEC standard 1.27mm (.050") thick PCB modules
Designed In: Millimeters

Electrical

Voltage: 125V AC
Current: 1.0A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 3.92N (.88 lb) min.
Mating Force: 147.10N (33.07 lb) max.
Durability: 25 cycles max.

Physical

Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—See table
Solder Tail Area—1.91µm (75µ") Tin
Underplating—Nickel

Circuits	Entry	Order No.		Function Key	Voltage Key	PC Tail Length	Latch Color	Lead-free
		0.38µm (15µ") Gold	0.76µm (30µ") Gold					
168	25° Angle	87587-2048	87587-2148	Left	Center (3.3V)	2.79 (.110)	Beige	Yes
		87587-2057	87587-2157			3.18 (.125)		
		87587-2049	87587-2149	Center		2.79 (.110)		
		87587-2058	87587-2158			3.18 (.125)		
		87587-2050	87587-2150	Right		2.79 (.110)		
		87587-2059	87587-2159			3.18 (.125)		
	Right Angle Side Entry	87609-0051		Left		2.79 (.110)		
		87609-0052		Center				
		87609-0053		Right				
		87609-0060		Left		3.18 (.125)		
		87609-0061		Center				
		87609-0062		Right				
		87609-0069		Left		3.56 (.140)		
		87609-0070		Center				
		87609-0071		Right				

AMC B+ Connectors L-2
MicroTCA Connector L-2
Low Profile VRM Connector – iCool™ ..... L-3 to L-4
PCI Express* Connectors ..... L-5 to L-6

KK®

Edge Connector Terminals L-7
Edge Connector Housings L-8

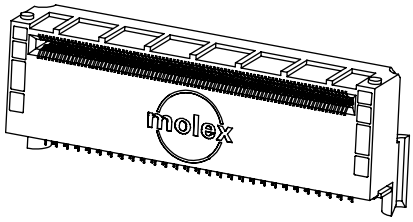
*PCI Express is a trademark of PCI-SIG

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

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0.75mm (.030") Pitch AMC B+ Connector

75800/75908/75791
170-Circuit
Press-Fit PC Tails



Features and Benefits
- Press-fit termination to PCB
- Design capable of transmission speeds of 12.5 Gbps
- With or without PCB alignment pegs
- Meets PICMG AMC.0 Rev. 1 specification
- Extended-height version available: 23.0mm

Reference Information
Product Specification: PS-75800-999
Packaging: Tray
Designed in: Millimeters

Electrical
Voltage: 30V
Current: 0.5A max
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 100 Megohms min.

Mechanical
Mating Force: 40N max
Unmating Force: 11.5N max
Durability: 200 cycles

Physical
Housing: Thermoplastic
Contact: Copper Alloy
Plating: Contact Area—Gold
Tail Area—See Table
PCB Thickness: 2.40mm (.093")

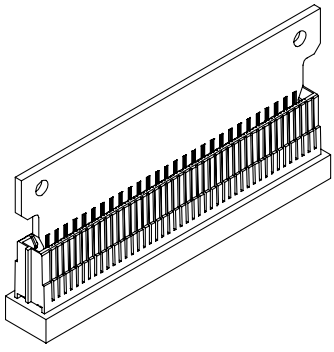
Order No.	PCB Peg	Tail Plating	Height	Lead-free
75800-0001	Yes	Tin	21.85mm (.860")	Yes
75800-0002		Tin/Lead		No
75908-0001	No	Tin	21.85mm (.860")	Yes
75908-0002		Tin/Lead		No
75791-0001	Yes	Tin	23.0mm (.906")	Yes
75791-0002		Tin/Lead		No

www.molex.com/product/amc0.html

L

0.75mm (.030") Pitch MicroTCA Connector

75594
170-Circuit
Press-Fit PC Tails



Features and Benefits
- 12.5 Gbps electrical design allows the system to run four times the current XAUI data rates, future proofing the system
- Footprint optimized for high speed differential performance
- Press-fit pins with flat-rock insertion tooling provide easy backplane assembly process and allow efficient routing
- Stitched contact design enables high-speed stitching for volume production and optimizes cost without compromising performance

Reference Information
Product Specification: PS-75594-999
Mates With: 1.57mm (.062") thick PCB Card
Designed In: Millimeters

Electrical
Voltage: 250V AC max.
Current: 1.5A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 10 Megohms min.

Mechanical
Insertion Force to PCB: 35.6N per pin
Mating Force: 145N max.
Unmating Force: 110N max.
Durability: 200 cycles min.

Physical
Housing: Black glass-filled Thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm min. Gold
Solder Tail Area—0.76 to 1.52µm Tin
Underplating—1.27µm min. Nickel
PCB Thickness: 1.60±0.16mm

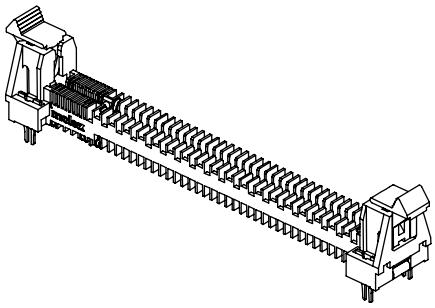
Circuits	Order No.	Lead-free
170	75594-0000	Yes

www.molex.com/product/microtca.html

1.00mm (.039") Pitch iCool™ Low Profile VRM Connector

87786

Vertical, with Latches



Features and Benefits

- High-temperature thermoplastic housing withstands lead-free solder processing
- Open housing design allows air flow to cool the contacts
- Four forklocks secure connectors to PCB against shock and vibration
- Low loop inductance design is ideal for high slew rate characteristics
- Use of VRMs saves valuable PCB real estate compared to Voltage Regulator Down (VRD)
- Plastic locating peg ensures proper insertion and polarization on the PCB
- Unique reverse angle latch notch feature retains the VRM module securely during shock and vibration

Reference Information

Product Specification: PS-87786-008
Packaging: Tray
Mates With: Voltage regulator module
Designed In: Millimeters

Electrical

Voltage: Power—48V
Signal—48V
Current: Power—4.0A per contact pair
Signal—1.0A per contact
Contact Resistance: Power—5 milliohms max.
Signal—10 milliohms max.
Dielectric Withstanding Voltage: 1100V AC
Insulation Resistance: 5000 Megohms min.

Mechanical

Contact Retention to Housing: 3.43N min. per pin
Insertion Force to PCB: 22.5N max. per forklock
Mating Force: 245.3N max.
Latch Actuation Force : 44.1N per latch
Durability: 25 cycles

Physical

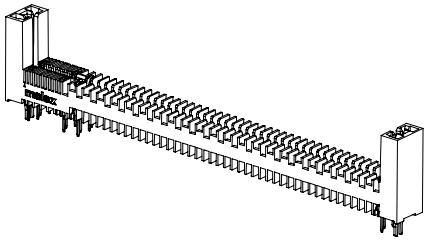
Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold
Solder Tail Area—Tin
Underplating: Nickel

Circuits	Order No.	PCB Mounting	Lead-free
Signal 20, Power 72 (VRM 10)	87786-1002	SMT	Yes
Signal 24, Power 70 (VRM 11)	87786-1011		

1.00mm (.039") Pitch iCool™ Low Profile VRM Connector

87810

Through Hole, Vertical Without Latch



Features and Benefits

- High-temperature thermoplastic housing withstands lead-free solder processing
- Open housing design allows air flow to cool the contacts
- Four beveled metal pins (Forklocks) secure connectors to PCB against shock and vibration
- Low loop inductance design ideal for high slew rates characteristics
- Same VRM plugs into vertical and horizontal connector reduces VRM design, test and inventory
- Plastic locating peg ensures proper insertion and polarization on the PCB
- Unique reverse angle latch notch feature retains the VRM Module securely during shock and vibration

Reference Information

Product Specification: PS-87810-008
Packaging: Tray
UL File No.: E29179
Mates With: Voltage Regulator Module
Designed In: Millimeters

Electrical

Voltage: Power—48V
Signal—48V
Current: Power—4A per contact pair
Signal—1A per contact pair
Contact Resistance: Power—5 milliohms max.
Signal—10 milliohms max.
Dielectric Withstanding Voltage: 1100V AC
Insulation Resistance: 5000 Megohms min.

Mechanical

Contact Retention to Housing:
Power and Signal: 3.43N min/pin
Insertion Force to PCB: 45.11N max.
Mating Force: 245.25N max.
Unmating Force: 98.1N max.
Durability: 25 cycles

Physical

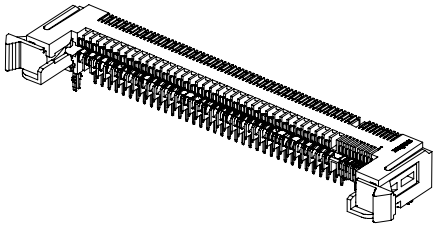
Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold
Solder Tail Area—Tin, Lead-free
Underplating—Nickel

Circuit Details	Order No.	Tower	Lead-free
Signal 22, Power 88	87810-1001	No	Yes
	87810-1002	Yes	

1.00mm (.039") Pitch iCool™ Low Profile VRM Connector

87818

Through Hole, Right Angle With Latch



Features and Benefits

- High-temperature thermoplastic housing withstands lead-free solder processing
- Open housing design allows air flow to cool the contacts
- Four forklocks secure connectors to PCB against shock and vibration
- Low loop inductance design ideal for high slew rate characteristics
- Same VRM plugs into vertical and horizontal connector reduces VRM design, test and inventory
- Plastic locating peg ensures proper insertion and polarization on the PCB
- Unique reverse angle latch notch feature retains the VRM Module securely during shock and vibration

Reference Information

Product Specification: PS-87818-006
Packaging: Tray
UL File No.: E29179
Mates With: Voltage regulator module
Designed In: Millimeters

Electrical

Voltage: Power—48V
Signal—48V
Current: Power—4.0A per contact pair
Signal—1.0A per contact pair
Contact Resistance: Power—7.5 milliohms max.
Signal—15 milliohms max.
Dielectric Withstanding Voltage: 1100V AC
Insulation Resistance: 5000 Megohms min.

Mechanical

Contact Retention to Housing: Power—4.90N min. per pin
Signal—3.43N min. per pin
Insertion Force to PCB: 22.5N max. per forklock
Mating Force: 245.25N max.
Latch Actuation Force: 44.1N per latch
Durability: 25 cycles

Physical

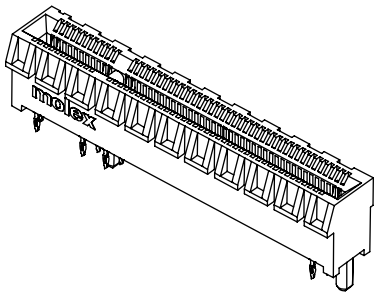
Housing: Black high-temperature themoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold
Solder Tail Area—Tin
Underplating: Nickel

Circuits	Order No.	Lead-free
Signal 20, Power 72 (VRM 10)	87818-1001	Yes
Signal 24, Power 70 (VRM 11)	87818-1011	

1.00mm (.039") Pitch PCI Express* ExpressModule* (SIOM) Socket

78033

Vertical, Press-Fit



Features and Benefits

- High-temperature thermoplastic housing for lead-free processing
- Complies with PCI-SIG* industry specifications to ensure connectors support all ExpressModule* available in the market
- Key design ensures correct mating of card module to edge card connector
- Press-fit termination allows solderless termination on PCBs with high layer count
- Wider lead-in design to better facilitates blind mating

Reference Information

Product Specification: PS-78028-001
Packaging: Tray
Mates With: 1.57mm (.061") thick ExpressModule
Designed In: Millimeters

Electrical

Voltage: 50V AC (RMS)/DC
Current: 1.1A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Terminal Retention Force: 2.94N min. per terminal
Mating Force: 1.15N max. per contact pair
Unmating Force: 0.15N min. per contact pair
Durability: 50 cycles

Physical

Housing: Black high-temperature nylon, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.76µm (30µ") Gold
Solder Tail Area—Tin
Underplating: Nickel

Circuits	Order No.	PC Tail Length	Recommended PCB Thickness	Lead-free
8 Ports, 98 Circuits	78033-0008	2.54mm (.100")	2.30mm (.090")	Yes
	78033-0018	2.79mm (.109")	2.60mm (.102")	
	78033-0028	3.43mm (.135")	3.20mm (.125")	

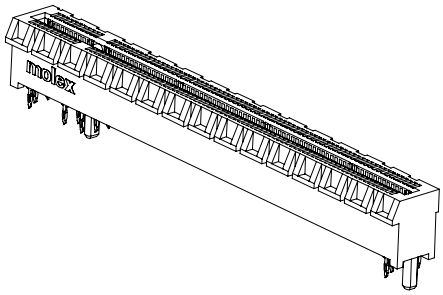
For Tin/Lead option, please contact Molex
*PCI Express, ExpressModule and PCI-SIG are trademarks or registered trademarks of PCI-SIG

www.molex.com/customer.html?seriesNumber=78033

1.00mm (.039") Pitch PCI Express* Edgecard Connector

78028

Vertical, Press-Fit



Features and Benefits

- High-temperature thermoplastic housing for lead-free processing
- Complies with PCI-SIG* industry specifications to ensure connectors support all PCI Express module cards
- Keying design ensures correct mating of card module to edge card connector
- Press-fit termination allows solderless termination on PCBs with high layer count
- Ridge design will be compatible with module cards that require a retention clip for secure retention

Reference Information

Product Specification: PS-78028-001
Packaging: Tray
Mates With: PCI Express* module card
Designed In: Millimeters

Electrical

Voltage: 50V AC (RMS)/DC
Current: 1.1A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Terminal Retention Force: 2.94N min./terminal
Mating Force: 1.15N max./contact pair
Unmating Force: 0.15N min./contact pair
Durability: 50 cycles

Physical

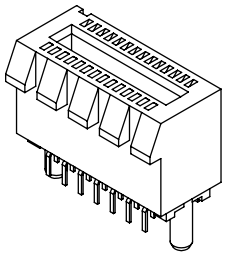
Housing: Black high-temperature nylon, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—See table
Solder Tail Area—Tin
Underplating: Nickel

Circuits	Order No.	Plating	PC Tail Length	Recommended PCB Thickness	Lead-free
8 Ports, 98 Circuits	78028-0008	0.76µm (30µ") Gold	2.54mm (.100")	2.30mm (.090")	Yes
	78028-0108		2.79mm (.109")	2.60mm (.102")	
	78028-1108		3.43mm (.135")	3.20mm (.125")	
	78028-0018	0.38µm (15µ") Gold	2.54mm (.100")	2.30mm (.090")	
	78028-0118		2.79mm (.109")	2.60mm (.102")	
	78028-1118		3.43mm (.135")	3.20mm (.125")	
16 Ports, 164 Circuits	78028-0016	0.76µm (30µ") Gold	2.54mm (.100")	2.30mm (.090")	
	78028-0116		2.79mm (.109")	2.60mm (.102")	
	78028-1116		3.43mm (.135")	3.20mm (.125")	
	78028-0026	0.38µm (15µ") Gold	2.54mm (.100")	2.30mm (.090")	
	78028-0126		2.79mm (.109")	2.60mm (.102")	
	78028-1126		3.43mm (.135")	3.20mm (.125")	

For Tin/Lead option, please contact Molex
* PCI Express and PCI-SIG are trademarks or registered trademarks of PCI-SIG

1.00mm (.039") Pitch PCI Express* Connector

87715
Vertical



Features and Benefits

- Complies with the PCI-SIG specification for desktop PCI Express implementation
- Supports 2.5 Gbps data transfer rate (per pair data bandwidth)
- Scalable modular design maximizes card interoperability for user flexibility—1x, 4x, and 8x add-in card can plug into 16x connector
- Enables hot plug and hot swap
- Simple through-hole design supports low-cost board assembly process

Reference Information

Product Specification: PS-87715-200~206
Packaging: Tray
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 1.1A
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 1.15N
Unmating Force: 0.15N
Durability: 50 cycles

Physical

Plating: Solder Tail Area—Tin or Tin/Lead
Underplating: Nickel

Circuits	Order No.	PCB Thickness	Plating Contact	Housing	Contact	Lead-free
26	87715-3901	1.6mm (.062")	15µ" Gold Plating	Nylon 4/6, Glass-filled	Phosphor Bronze	No
36	87715-2000	1.6mm (.062")	Gold Flash	Nylon 6/6, Glass-filled		
	87715-2002	1.6mm (.062")	15µ" Gold Plating	Nylon 6/6, Glass-filled		
	87715-3000	1.6mm (.062")	Gold Flash	Nylon 4/6, Glass-filled		
	87715-3002	1.6mm (.062")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-3005	2.4mm (.093")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-6000	1.6mm (.062")	Gold Flash	Nylon 6/6, Glass-filled		Yes
	87715-6002	1.6mm (.062")	15µ" Gold Plating	Nylon 6/6, Glass-filled		
	87715-6003	2.4mm (.093")	Gold Flash	Nylon 6/6, Glass-filled		
	87715-6005	2.4mm (.093")	15µ" Gold Plating	Nylon 6/6, Glass-filled		
	87715-9000	1.6mm (.062")	Gold Flash	Nylon 4/6, Glass-filled		
	87715-9002	1.6mm (.062")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-9003	2.4mm (.093")	Gold Flash	Nylon 4/6, Glass-filled		
	87715-9005	2.4mm (.093")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-9006	1.6mm (.062")	30µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-9007	1.6mm (.062")	Gold Flash	Nylon 4/6, Glass-filled		
	87715-9008	1.6mm (.062")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
64	87715-2102	1.6mm (.062")	15µ" Gold Plating	Nylon 6/6, Glass-filled	Phosphor Bronze	No
	87715-3102	1.6mm (.062")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-3105	2.4mm (.093")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-6100	1.6mm (.062")	Gold Flash	Nylon 6/6, Glass-filled		Yes
	87715-6102	1.6mm (.062")	15µ" Gold Plating	Nylon 6/6, Glass-filled		
	87715-6103	2.4mm (.093")	Gold Flash	Nylon 6/6, Glass-filled		
	87715-6105	2.4mm (.093")	15µ" Gold Plating	Nylon 6/6, Glass-filled		
	87715-9100	1.6mm (.062")	Gold Flash	Nylon 4/6, Glass-filled		
	87715-9102	1.6mm (.062")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-9103	2.4mm (.093")	Gold Flash	Nylon 4/6, Glass-filled		
	87715-9105	2.4mm (.093")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-9106	1.6mm (.062")	30µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-9107	1.6mm (.062")	Gold Flash	Nylon 4/6, Glass-filled		
	87715-9108	1.6mm (.062")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
98	87715-3202	1.6mm (.062")	15µ" Gold Plating	Nylon 4/6, Glass-filled	Phosphor Bronze	No
	87715-3205	2.4mm (.093")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-9902	1.6mm (.062")	Gold Flash	Nylon 4/6, Glass-filled		Yes
	87715-9903	1.6mm (.062")	Gold Flash	Nylon 4/6, Glass-filled		
	87715-9904	2.4mm (.093")	Gold Flash	Nylon 4/6, Glass-filled		
	87715-9905	1.6mm (.062")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-9906	1.6mm (.062")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-9907	2.4mm (.093")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-2200	1.6mm (.062")	Gold Flash	Nylon 6/6, Glass-filled		No
	87715-2202	1.6mm (.062")	15µ" Gold Plating	Nylon 6/6, Glass-filled		
	87715-3200	1.6mm (.062")	Gold Flash	Nylon 4/6, Glass-filled		

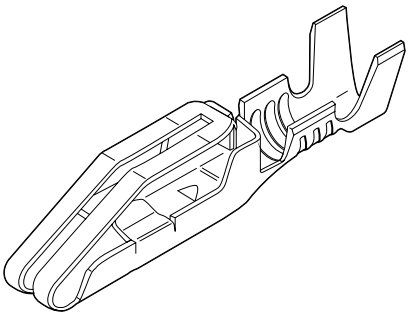
Circuits	Order No.	PCB Thickness	Plating Contact	Housing	Contact	Lead-free
98	87715-3206	1.6mm (.062")	30µ" Gold Plating	Nylon 4/6, Glass-filled	Phosphor Bronze	No
	87715-3902	1.6mm (.062")	Gold Flash	Nylon 4/6, Glass-filled		
	87715-3905	1.6mm (.062")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-3910	1.6mm (.062")	30µ" Gold Plating	Nylon 4/6, Glass-filled	Copper Alloy	
	87715-6200	1.6mm (.062")	Gold Flash	Nylon 6/6, Glass-filled	Phosphor Bronze	Yes
	87715-6202	1.6mm (.062")	15µ" Gold Plating	Nylon 6/6, Glass-filled		
	87715-6203	2.4mm (.093")	Gold Flash	Nylon 6/6, Glass-filled		
	87715-6205	2.4mm (.093")	15µ" Gold Plating	Nylon 6/6, Glass-filled		
	87715-9200	1.6mm (.062")	Gold Flash	Nylon 4/6, Glass-filled		
	87715-9202	1.6mm (.062")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-9203	2.4mm (.093")	Gold Flash	Nylon 4/6, Glass-filled		
	87715-9205	2.4mm (.093")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-9206	1.6mm (.062")	30µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-9207	1.6mm (.062")	Gold Flash	Nylon 4/6, Glass-filled		
	87715-9208	1.6mm (.062")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
164	87715-2300	1.6mm (.062")	Gold (Au) Flash	Nylon 6/6, Glass-filled	Phosphor Bronze	No
	87715-2302	1.6mm (.062")	15µ" Gold Plating	Nylon 6/6, Glass-filled		
	87715-3302	1.6mm (.062")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-3305	2.4mm (.093")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-3306	1.6mm (.062")	30µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-3913	2.4mm (.093")	30µ" Gold Plating	Nylon 4/6, Glass-filled	Copper Alloy	
	87715-6300	1.6mm (.062")	Gold Flash	Nylon 6/6, Glass-filled	Phosphor Bronze	Yes
	87715-6302	1.6mm (.062")	15µ" Gold Plating	Nylon 6/6, Glass-filled		
	87715-6303	2.4mm (.093")	Gold Flash	Nylon 6/6, Glass-filled		
	87715-6305	2.4mm (.093")	15µ" Gold Plating	Nylon 6/6, Glass-filled		
	87715-9300	1.6mm (.062")	Gold Flash	Nylon 4/6, Glass-filled		
	87715-9302	1.6mm (.062")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-9303	2.4mm (.093")	Gold Flash	Nylon 4/6, Glass-filled		
	87715-9305	2.4mm (.093")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-9306	1.6mm (.062")	30µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-9307	1.6mm (.062")	Gold Flash	Nylon 4/6, Glass-filled		
	87715-9308	1.6mm (.062")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
200	87715-9920	1.6mm (.062")	30µ" Gold Plating	Nylon 4/6, Glass-filled	Phosphor Bronze	
	87715-9921	2.4mm (.093")	30µ" Gold Plating	Nylon 4/6, Glass-filled		
230	87715-3909	2.4mm (.093")	15µ" Gold Plating	Nylon 4/6, Glass-filled	Phosphor Bronze	
280	87715-3914	2.4mm (.093")	Gold Flash	Nylon 4/6, Glass-filled	Phosphor Bronze	
	87715-3915	2.4mm (.093")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-3916	2.4mm (.093")	30µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-3917	1.6mm (.062")	Gold Flash	Nylon 4/6, Glass-filled		
	87715-3918	1.6mm (.062")	15µ" Gold Plating	Nylon 4/6, Glass-filled		
	87715-3919	1.6mm (.062")	30µ" Gold Plating	Nylon 4/6, Glass-filled		

*PCI Express is a trademark of PCI-SIG.

3.96mm (.156") Pitch Double-Sided Edge KK® Connector Terminals

4366

PC Crimp and Solder Eyelet



Features and Benefits

- Solder loop version available
- Anti-fishhooking feature prevents terminals from snagging
- Wire barrier prevents stripped wire from entering the contact area
- Coined outside edges prevent excess scoring of the solder pad surfaces
- Patented bifurcated contact area
- Anti-overstress feature

Reference Information

Packaging: Reel or bag
Use With: 4338
Designed In: Inches

Electrical

Voltage: 250V
Current: 5.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1500V
Insulation Resistance: 50,000 Megohms min.

Mechanical

Contact Retention to Housing: 8 lb min.
Wire Pull-Out Force: 20 lb for 18 AWG
(less for smaller wire)

Physical

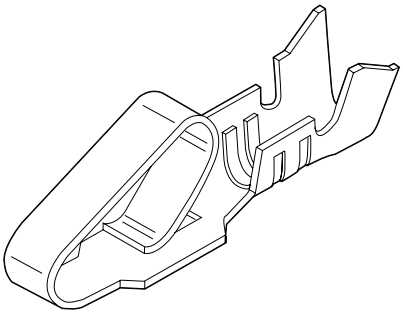
Contact: Brass
Plating: See Table

Order No.		Crimp Wire Size	Maximum Insulation Diameter	Engineering No.	Plating	Lead-free
Reel Form	Bag Form					
08-03-0303	08-03-0304	18-20	2.79 (.110)	4366	Tin	Yes
08-05-0301	08-05-0302			4366	Gold	

www.molex.com/product/kk/

3.96mm (.156") Pitch KK® Crimp Terminal

2478/2578



Features and Benefits

- Double cantilever design
- Single beam terminal is available for low insertion force 7821 Series (contact Molex)
- For low-level current and voltage, use Gold plating
- Phosphor Bronze is recommended for rated current
- Complete line of terminal crimping equipment available (see Application Tooling section of this catalog)

Reference Information

Product Specification: PS-08-50
Tooling Information: See crimp tooling section
UL File No.: E29179
CSA File No.: LR19980
Use With: 2139, 3069 and 41695

Electrical

Voltage: 250V AC max.
Current: Max.

AWG	18	20	22	24	26
Phosphor Bronze	7.00A	6.25A	5.50A	5.00A	4.50A
Brass	5.00A	4.75A	4.50A	4.25A	4.00A

Contact Resistance: 6 milliohms max.

Mechanical

Normal Force: 0.75kg (1.65 lb)
Durability: Tin—25 cycles
Gold—50 cycles

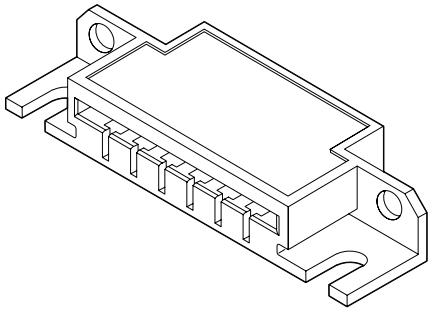
Order No.						Wire Size AWG	Insulation OD	Series	Material	Lead-free
Tin Plating		Gold Plating No. 1		Gold Plating No. 2						
Reel	Bag	Reel	Bag	Reel	Bag					
08-52-0071	08-52-0072	08-58-0121	08-58-0122	08-65-0114	08-65-0115	18-20	2.79 (.110)	max. 2478	Phosphor Bronze	Yes
08-50-0105	08-50-0106	08-56-0105	08-56-0106	08-55-0103	08-55-0104	18-20	2.79 (.110)	max. 2478	Brass	
08-50-0133	08-50-0134	08-58-0125	08-58-0126	08-65-0116	08-65-0117	22-26	1.65 (.065)	max. 2578	Phosphor Bronze	
08-50-0107	08-50-0108	08-56-0107	08-56-0108	08-55-0105	08-55-0106	22-26	1.65 (.065)	max. 2578	Brass	

Recommended wire range assumes stranded wire
Plating No. 1: 20µ" min. Gold in contact area with a flash overall
Plating No. 2: 15µ" min. Gold in contact area only

3.96mm (.156") Pitch KK® Single-Sided Edge Connector Housing

2574

Polarized Edge Connector Housing for Crimp Terminals



Features and Benefits

- Optional mounting flanges
- Polarization provided by structural ribs
- Uses optional bifurcated terminals
- IDC version (7241 product)
- Housing accommodates terminals for 18 to 26 AWG

Reference Information

Packaging: Bag
UL File No.: E29179
Use With: 2478 and 2578 terminals
Designed In: Inches

Electrical

Voltage: 250V
Current: 5.0A
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 50,000 Megohms min.

Physical

Housing: Nylon, UL 94V-2
Recommended PCB Thickness: 1.57mm (.062")

Circuits	Order No.		Center Ribs Between Circuits
	Without Flange	With Flange	
3	09-01-6031	09-01-7031	
4	09-01-6041		
5	09-01-6051	09-01-7051	
6		09-01-7064	
6	09-01-6061	09-01-7061	2 and 3
7	09-01-6071	09-01-7071	3 and 4
8		09-01-7081	
8	09-01-6085		2 and 3
8	09-01-6086		3 and 4
8	09-01-6083	09-01-7083	5 and 6
9	09-01-6095	09-01-7095	2 and 3
9	09-01-6094	09-01-7094	5 and 6

Circuits	Order No.		Center Ribs Between Circuits
	Without Flange	With Flange	
9	09-01-6091	09-01-7091	3 and 4 / 5 and 6
10	09-01-6101	09-01-7101	4 and 5 / 7 and 8
12	09-01-6121		5 and 6 / 8 and 9
15	09-01-6151	09-01-7151	4 and 5 / 7 and 8 / 11 and 12
16	09-01-6161	09-01-7161	4 and 5 / 7 and 8 / 11 and 12
17	09-01-6171	09-01-7171	5 and 6 / 10 and 11 / 14 and 15
18	09-01-6181	09-01-7181	5 and 6 / 10 and 11
19	09-01-6191	09-01-7191	4 and 5 / 7 and 8 / 11 and 12 / 15 and 16
21	09-01-6211	09-01-7211	5 and 6 / 10 and 11 / 15 and 16
22	09-01-6224	09-01-7224	5 and 6 / 11 and 12 / 16 and 17
24	09-01-6241	09-01-7241	4 and 5 / 8 and 9 / 12 and 13 /16 and 17 / 20 and 21

Note: Use KK® terminal 2578 for 22 to 26 AWG wire, or 2478 for 18 to 24 AWG with 2.79mm (.110") diameter maximum insulation

ExpressCard* M-2
MicroSD ..... M-3 to M-4
PC Card Headers ..... M-4 to M-5
One Slot Cardbus Headers M-5
SD Memory Card Connector M-6

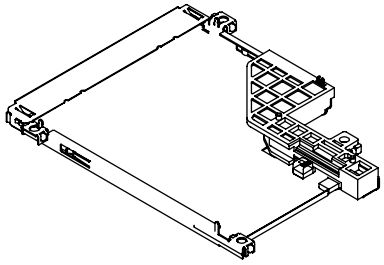
*ExpressCard is a trademark of PCMCIA

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

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1.00mm (.039") Pitch ExpressCard* Ejector Assembly

47150
Push-Push Type Screw Mount



Order No.	Description	Lead-free
47150-0003	Without Bottom Shell	Yes
47150-0004	With Bottom Shell	

*ExpressCard is a trademark of PCMCIA

Features and Benefits
- Smooth guide rail design enables modules to be easily inserted and ejected
- Clip grounding design provides lower contact resistance
- Plastic heart cam slider with push-out function prevents scratches from modules
- The use of plastic material on universal guidance feature enhanced lead-in of modules
- Nut plate design in metal shell provides space saving on PCB

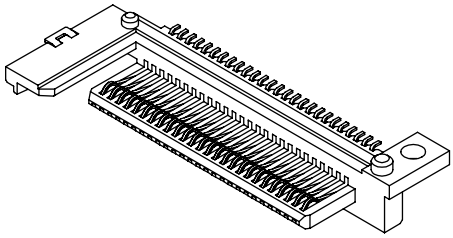
Reference Information
Product Specification: PS-47202-001
Packaging: Tray
Use With: 47150-0002 header
Designed In: Millimeters

Mechanical
Durability: 10,000 cycles

Physical
Housing: High-temperature thermoplastic, UL 94V-0

1.00mm (.039") Pitch ExpressCard* Header

47150
Top Mount, SMT



Order No.	Lead-free
47150-0002	Yes

*ExpressCard is a trademark of PCMCIA

Features and Benefits
- Compatible with ExpressCard™ standard
- Beveled spring contact design provides secure contact force and mating retention
- Polarization shape prevents from mismating of PCB
- Fitting nail design reinforce hold-on to PCB

Reference Information
Product Specification: PS-47202-001
Packaging: Tray
Use With: 47150-0003 or 47150-0004 ejector assembly
Designed In: Millimeters

Electrical
Voltage: 3.3V DC
Current: 0.75A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

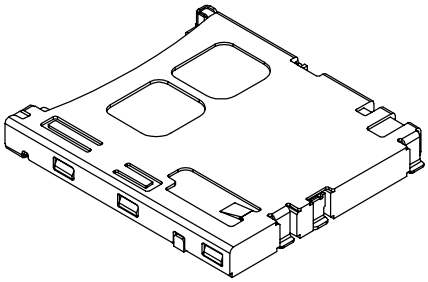
Mechanical
Mating Force: 39N max.
Unmating Force: 3.7N min. and 18.5N max.
Durability: 10,000 cycles

Physical
Housing: High-temperature thermoplastic, UL 94V-0
Terminal: Contact Area—Gold plating
Solder Tail Area—Tin
Underplating—Nickel

1.10mm (.043") Pitch microSD Memory Card Connector

502570

Normal Mount, SMT Push-Push Type With Detect Switch



Circuits	Order No.	Lead-free
8	502570-0893	Yes

Features and Benefits
- 1.80mm height (nominal)
- Inner housing rib wall protects terminal tips during card insertion
- Reliable detect switch assures card detection
- Smoothly beveled terminal to prevent terminal damage when card is inserted
- Card polarization feature to prevents card from being improperly inserted

Reference Information
Product Specification: PS-502570-001
Packaging: Embossed tape
Designed In: Millimeters

Electrical
Voltage: 10V max.
Current: 0.5A max.
Contact Resistance: 100 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

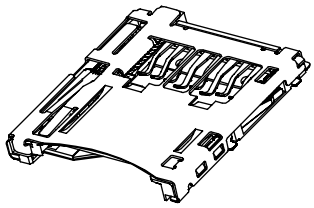
Mechanical
Durability: 10,000 cycles

Physical
Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel

1.10mm (.043") Pitch microSD Memory Card Connector

502774

Reverse Mount, SMT Push-Push Type With Detect Switch



Circuits	Order No.	Lead-free
8	502774-0891	Yes

Features and Benefits
- 1.80mm height (nominal)
- Card ejection support features on housing and shell to prevent card fly-out, sticking
- Inner housing rib wall protects terminal tips during card insertion
- Reliable detect switch assures card detection
- Smoothly beveled terminal to prevent terminal damage when card is inserted
- Card polarization feature prevents card from being improperly inserted

Reference Information
Product Specification: PD-502774-001
Packaging: Embossed tape
Designed In: Millimeters

Electrical
Voltage: 10V max.
Current: 0.5A max.
Contact Resistance: 100 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

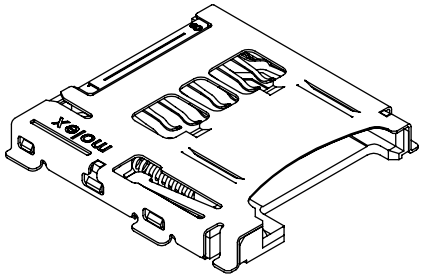
Mechanical
Durability: 10,000 cycles

Physical
Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold over Nickel
Solder Tail Area—Tin over Nickel

1.10mm (.043") Pitch microSD Memory Card

49225

Reverse
With Detect Switch



Circuits	Order No.	Lead-free
8	49225-0821	Yes

Features and Benefits
- Ultra-small size for space savings
- Push-pull card eject enables easy extraction
- Metal shielding with shell tabs provides ESD protection and grounding support
- Gold-plated beveled spring contacts provide secure contact force and mating retention
- Wide open area on shells accommodates pick-and-place

Reference Information
Product Specification: PS-49225-001
Packaging: Embossed tape
Use With: microSD card and T-Flash card
Designed In: Millimeters

Electrical
Voltage: 100V max.
Current: 0.5A max.
Contact Resistance: 100 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

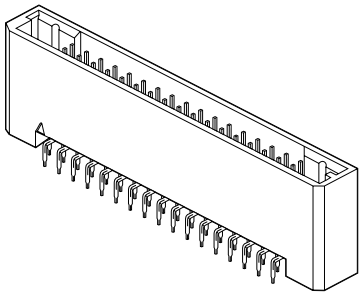
Physical
Housing: LCP
Contact: Phosphor Bronze
Plating: Gold over Nickel

www.molex.com/product/memory/microsd.html

1.27mm (.050") Pitch PC Card Header

94208

Single Port, Flush Profile
Vertical, Top Mount
Through Hole



Circuits	Order No.	Board Mount	Lead-free
68	94208-0011	Vertical	Yes

Pin No.	Dimension L
36 and 67	3.50 (.138)
All other pins	4.25 (.167)
1, 17, 34, 35, 51 and 68	5.00 (.197)

Features and Benefits
- Compatible with PCMCIA and JEIDA standards
- Screw holes inside the shrouded housing (no mounting ears)
- Accepts any PCMCIA Type I, II or III cards

Reference Information
Product Specification: PS-94208
Packaging: Tube
Designed In: Millimeters

Electrical
Voltage: 100V
Current: 0.5A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

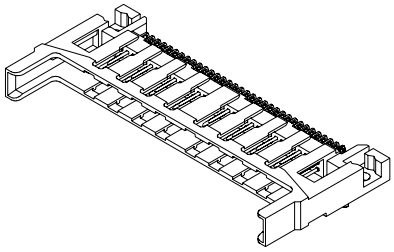
Mechanical
Contact Retention to Housing: 9.8N min.
Mating Force: 39.2N max.
Unmating Force: 6.67N min.
Durability: 10,000 cycles

Physical
Housing: Black nylon 6/6, UL 94V-0
Terminal: Contact Area—Gold plating
Solder Tail Area—Tin
Underplating—Nickel

1.27mm (.050") Pitch PC Card Header

67130

Single Slot, Flush Profile Top Mount, Right Angle, SMT



Features and Benefits

- Low voltage: 3.3V key
- Low Profile: 5.45mm (.215") height
- Single inline surface mount tails: 0.635mm (.025") pitch
- High temperature housing for IR process
- Top mounting version
- Accepts any PCMCIA Type I, II and III cards and any
- Type I or II cards with ejector mechanism

Reference Information

Product Specification: PS-67160-011
Packaging: Tray
Designed In: Millimeters

Electrical

Voltage: 100V
Current: 0.5A
Contact Resistance: 40 milliohms max.
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 9.8N (2.205 lb) min.
Mating Force: 39.2N (8.82 lb) max.
Unmating Force: 6.67N (1.50 lb) min.
Durability: 10,000 cycles

Physical

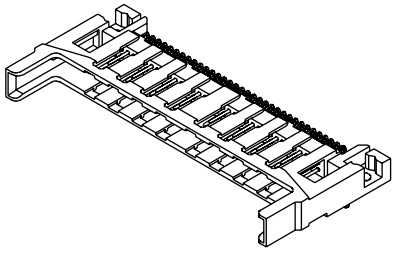
Housing: White Glass-filled LCP, UL 94V-0
Terminal: Contact Area—Gold plating
Solder Tail Area—Tin
Underplating—Nickel

Circuits	Order No.	Voltage Key	Lead-free
68	67130-0802	3.3V Key	Yes

1.27mm (.050") Pitch One Slot Cardbus Header

67130

Flush Profile, Top Mount Right Angle, SMT



Features and Benefits

- Low voltage: 3.3V key
- Low Profile: 5.45mm (.215") height
- Compatible with PCMCIA standard
- Single inline surface mount tails: 0.635mm (.025") pitch
- High temperature housing for IR process
- 8 grounding plates reinforce the ground bounce performance
- Top mounting version
- Accepts any PCMCIA Type I, II and III cards and Cardbus cards and any Type I or II cards with ejector mechanism

Reference Information

Product Specification: PS-67160-011
Packaging: Tray
Designed In: Millimeters

Electrical

Voltage: 100V
Current: 0.5A
Contact Resistance: 40 milliohms max.
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 9.8N min.
Mating Force: 39.2N max.
Unmating Force: 6.67N min.
Durability: 10,000 cycles

Physical

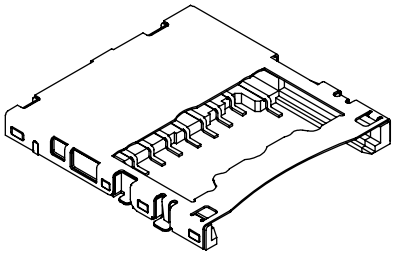
Housing: White glass-filled LCP, UL 94V-0
Terminal: Contact Area—Gold plating
Solder Tail Area—Tin
Underplating—Nickel

Circuits	Order No.	Voltage Key	Lead-free
68	67130-0801	3.3V Key	Yes

2.50mm (.098") Pitch SD Memory Card Connector

500998

Normal-Mount, SMT, Shielded 3.10mm (.122") Mounted Height



Circuits	Order No.	Lead-free
9	500998-0900	Yes

Features and Benefits

- Beveled spring contacts provide secure contact force and mating retention
- Low-profile design provides space savings
- Push-push ejector offers easy card extraction and tactile feel
- Metal shielding and integral solder tabs provide ESD protection
- Top window provides card visibility
- Robust shell provides card protection

Reference Information

Product Specification: PS-500998-003
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 100V max.
Current: 0.5A max.
Contact Resistance: 80 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 13.8N max.
Unmating Force: 13.8N max.
Durability: 10,000 cycles

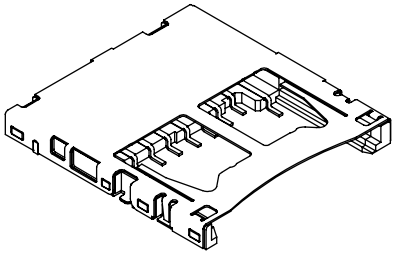
Physical

Housing: Black heat resistant Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Gold

2.50mm (.098") Pitch SD Memory Card Connector

500999

Normal-Mount, SMT, Shielded 3.10mm (.122") Mounted Height Ultra-Short Solder Tabs



Circuits	Order No.	Lead-free
9	500999-0900	Yes

Features and Benefits

- Beveled spring contacts provide secure contact force and mating retention
- Low profile design provides space savings
- Push-push ejector offers easy card extraction and tactile feel
- Metal shielding and integral solder tabs provide ESD protection
- Top window provides card visibility
- Robust shell provides card protection

Reference Information

Product Specification: PS-500999-001
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 100V max.
Current: 0.5A max.
Contact Resistance: 80 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 13.8N max.
Unmating Force: 13.8N max.
Durability: 10,000 cycles

Physical

Housing: Black heat resistant Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Gold

High Speed Pluggable I/O Solutions

Small Form-Factor Pluggable (SFP)
- Connectors ..... N-2 to N-3
- Cable Assemblies ..... N-7 to N-8
- Tranceiver N-9
- EMI Plug N-9
- Stacked Connectors ..... N-4 to N-6

SFP+
- Cages N-10
- Lightpipe Covers N-11
- Stacked Multi-Port Connectors ..... N-11 to N-14
- Cables N-15

GBIC N-15
QSFP N-16
XPAK N-52

Industry Standard I/O Connectors

PCIe 1X N-17
iPass™ ..... N-18 to N-32
HDMI* N-33
DisplayPort† N-33
IEEE 1394-1395 ..... N-34 to N-35
USB ..... N-35 to N-40
InfiniBand‡ ..... N-41 to N-43
VHDCI ..... N-53 to N-57
Micro-Cross™ DVI ..... N-78 to N-85

General I/O Connectors

LaneLink™ ..... N-44 to N-52
HandyLink™ ..... N-57 to N-62
LFH™ ..... N-63 to N-75
DMS-59™ N-76
TDP™ Triad Differential Pair ..... N-76 to N-77
Commercial Micro-D ..... N-86 to N-88
D-Subminiature ..... N-89 to N-90
Shutter I/O N-91

Cable Assemblies

High Performance I/O Cable Assemblies ..... N-92 to N-94

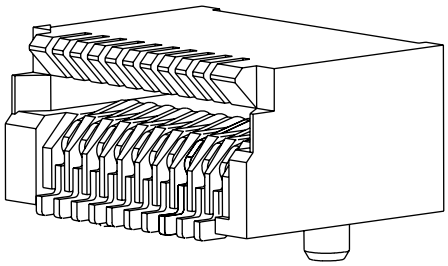
Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

*HDMI is a trademark of HDMI Licensing, LLC
†DisplayPort is a trademark of Video Electronics Standards Association (VESA)
‡InfiniBand is a trademark of the InfiniBand™ Trade Association

0.80mm (.031") Pitch Small Form-Factor Pluggable (SFP/SFP+) Receptacle

74441

Right Angle, SMT



Features and Benefits

- Connector used in conjunction with pluggable transceiver modules allows you to mate copper cable or optical cable assemblies without changing host board
- Card entry slot to accept 1.00mm (.039") thick integrated circuit board (located inside pluggable module)
- Alignment posts provide stability for placement on the PCB
- Standoffs allow easy PCB cleaning after soldering
- SMT receptacle provides option for placement on either side of PCB
- Meets MSA standards

Reference Information

Packaging: Tape and reel
Mates With: 73929 Copper patch cable, 74720 Copper pluggable module and optical pluggable module
Use With: 73927 cage assembly
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.5A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention to Housing: 4.4N (1.0 lb)
Mating Force: 22N (5.0 lb)
Unmating Force: 8.8N (2.0 lb)
Normal Force: 0.8N (80g)
Durability: 200 cycles

Physical

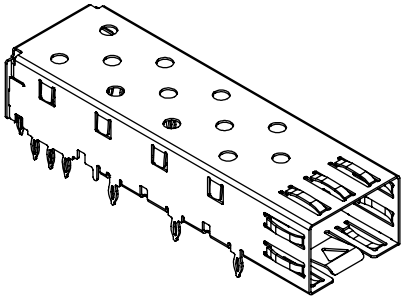
Housing: High-temperature thermoplastic
Contact: Copper Alloy
Plating: Contact Area—See table
Solder Tail Area—Gold flash or 2.54mm Tin
Underplating—2.54µm Nickel
PCB Thickness: 1.00mm (.039")

Circuits	Order No.	Plating	Version
20	74441-0001	0.38µm (25µ") Gold	SFP, SFP+
	74441-0010	0.76µm (30µ") Gold	
	74441-0021	0.76µm (30µm") Gold, lubricated	
30	74441-0007	0.38µm (25µ") Gold	XFP
	74441-0017	0.76µm (30µ") Gold	
	74441-0027	0.76µm (30µm") Gold, lubricated	
70	74441-0003	0.38µm (25µ") Gold	Xenpak, X2, XPAK
	74441-0013	0.76µm (30µ") Gold	
	74441-0023	0.76µm (30µm") Gold, lubricated	

www.molex.com/product/sfp.html

1X SFP (Small Form-factor Pluggable) EMI Cage

74737



Features and Benefits

- Press-fit, solder post and PCI pin styles enable use with various PCB thicknesses and assembly processes
- Two-point spring contacts offer optimal EMI grounding
- One-piece, stamped and formed cage is able to meet RoHS requirements by eliminating solder
- Built in tabs allow addition of lightpipe cover

Reference Information

Packaging: Tray
Mates With: 73929, 73930, 74742, 74743 and 74720
Use With: 74441
Designed In: Millimeters

Mechanical

Insertion Force to PCB: 3.25 lbF per press-fit pin
Retention Force to PCB: 1.6 lbF per press-fit pin
Durability: 1 cycle

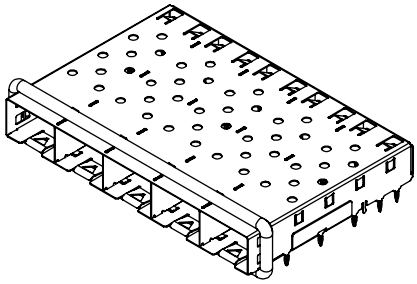
Physical

Cage Housing: C770 Alloy
Plating: Nickel
PCB Thickness: 1.57mm (.062") min.

Order No.	Description	Lead-free
74737-0004	Press-fit (.090") legs, Belly-to-Belly	Yes
74737-0009	Press-fit (.120") legs	
74737-0010	Solder post (0.133" legs), wave solder for 0.093" PCB	
74737-0012	Press-fit (.090") legs with 74737-0009 leg style	
74737-0014	Press-fit (0.120" legs) with Kapton tape	
74737-0016		

Multi-Port SFP (Small Form-factor Pluggable) EMI Cage

74722/74728/74723/74747
Ganged



Features and Benefits
- Ganged SFP design offers significant PCB width savings over the single cage solution
- 360˚ conductive elastomeric gasket and multiple ground pin locations provide advanced shielding to the bezel
- Press-fit pin design accommodates belly-to-belly applications to ensure best use of PCB real estate
- Built in tabs allow addition of ganged lightpipe covers

Reference Information
Packaging: Tray
Mates With: 73929, 73930, 74742, 74743, 74720
Use With: 74441 connector and 74726, 74727, 74728, 74729, 74748 lightpipe covers
Designed In: Millimeters

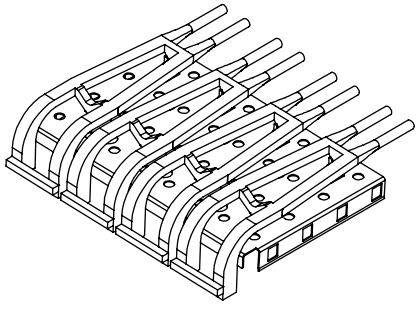
Mechanical
Durability: 1 cycle

Physical
Cage housing: C770 Alloy
Plating: Nickel
PCB Thickness: 1.57mm (.062") min.

Order No.	Description	Mounting	Lead-free
74722-0001	1 by 2 Ganged Cage—Belly to Belly	Press-fit	Yes
74722-0004	Single Side 1 by 2		
74728-0415	1 by 4 Ganged Cage—Belly to Belly		
74728-0420	Single Side 1 by 4		
74723-0001	1 by 5 Ganged Cage		
74747-0001	1 by 6 Ganged Cage		

SFP (Small Form-factor Pluggable) Lightpipe Covers for Single and Multi-Port EMI Cages

74726/74727/74728/ 74729/74748



Features and Benefits
- Lightpipes compensate for misalignment and help ensure uniform panel illumination
- Mechanically attaching lightpipes to the lightpipe cover reduces assembly time and eliminates processing issues
- Cage mounted tabs ensure proper cover placement
- Application notes on individual sales drawings help decrease design time and costs by providing recommended LEDs

Reference Information
Packaging: Tray
Mates With: 74722, 74723, 74728, 74737 and 74747 cages
Designed In: Millimeters

Mechanical
Durability: 1 cycle—Lightpipes to cover

Physical
Lightpipe: Polycarbonate, UL 94V-0
Lightpipe Cover: C770 Alloy
Lightpipe Cover Plating: Nickel

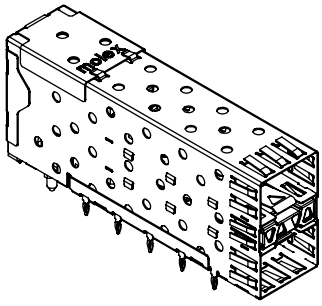
Order No.	Description	Lightpipe Location*	Lead-free
74726-0001	1 by 1	Rear Mount	Yes
74726-0002		Side Mount	
74727-0001	1 by 2	Rear Mount	
74727-0002		Side Mount	
74728-0001	1 by 4	Rear Mount	
74729-0001	1 by 5		
74748-0001	1 by 6		
74748-0002	1 by 6, low profile		

*Note: Low profile lightpipes are available for all rear-mounted locations; shortened lightpipes (by 0.052") are available for rear-mounted locations

0.80mm (.031") Pitch 2-by-1 SFP Stacked Multi-Port Connector

75640/75462

25.50mm (1.004") Height With Press-Fit PC Tails With and Without Lightpipes



Features and Benefits

- Integrates 2 SFP ports and LED lightpipes into 1 connector
- Press-fit termination to PCB
- Fully shielded for EMI protection
- Lightpipes for port status and activity feedback

Reference Information

Product Specification: PS-75310-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: SFP transceivers or cables
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.5A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Mating Force: 40N max.
Unmating Force: 11.5N max.
Durability: 200 cycles

Physical

Housing: Thermoplastic
Contact: Copper Alloy
Plating: Contact Area—Gold
Tail Area—See table
Underplating—Nickel
PCB Thickness: 2.40mm (.093")

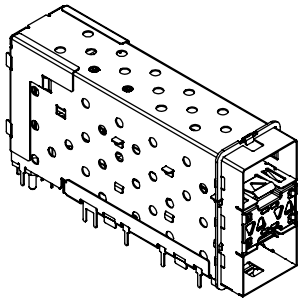
Order No.	Lightpipes	Tail Plating
75640-0001	2 per port	Tin/Lead
75640-5001		Tin
75640-0002	1 per port, inner	Tin/Lead
75640-5002		Tin
75640-0003	1 per port, outer	Tin/Lead
75640-5003		Tin
75462-0001	None	Tin/Lead
75462-5001		Tin

Note: Please refer to sales drawing for footprint differences between versions with and without lightpipes.

0.80mm (.031") Pitch 2-by-1 SFP Stacked Multi-Port Connector

75310/75786

29.30mm (1.153") Height With Lightpipes



Features and Benefits

- Integrates 2 SFP ports and LED lightpipes into 1 connector
- Design capable of transmission speeds well beyond the 4.25 Gbps Next Generation Fibre Channel interface
- Fully shielded with gasket for EMI protection
- Lightpipes for port status and activity feedback

Reference Information

Product Specification: PS-75310-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: SFP Transceivers or Cables
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.5A max
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Mating Force: 40N max
Unmating Force: 11.5N max
Durability: 200 cycles

Physical

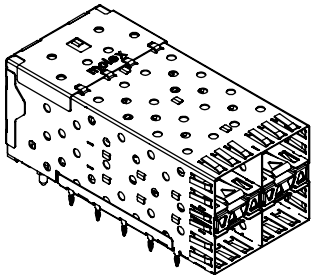
Housing: Thermoplastic
Contact: Copper Alloy
Plating: Contact Area—Gold
Tail Area—See table
Underplating—Nickel
PCB Thickness: 2.40mm (.093")

Order No.	PC Tail	Tail Plating	Lead-free
75310-0001	Solder	Tin	Yes
75786-0001	Press-Fit	Tin-Lead	No
75786-5001		Tin	Yes

0.80mm (.031") Pitch 2-by-2 SFP Stacked Multi-Port Connector

75714/75759

25.50mm (1.004") Height With Press-Fit PC Tails With and Without Lightpipes



Order No.	Lightpipes	Tail Plating
75714-0001	2 per port	Tin/Lead
75714-5001		Tin
75714-0002	1 per port, inner	Tin/Lead
75714-5002		Tin
75714-0003	1 per port, outer	Tin/Lead
75714-5003		Tin
75759-0001	None	Tin/Lead
75759-5001		Tin

Note: Please refer to sales drawing for footprint differences between versions with and without lightpipes.

Features and Benefits

- Integrates 4 SFP ports and LED lightpipes into 1 connector
- Press-fit termination to PCB
- Fully shielded for EMI protection
- Lightpipes for port status and activity feedback

Reference Information

Product Specification: PS-75310-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: SFP transceivers or cables
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.5A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Mating Force: 40N max.
Unmating Force: 11.5N max.
Durability: 200 cycles

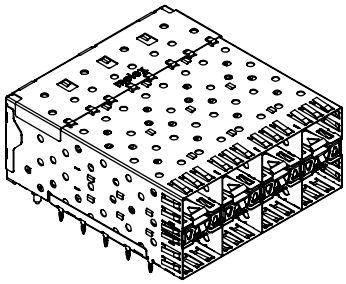
Physical

Housing: Thermoplastic
Contact: Copper Alloy
Plating: Contact Area—Gold
Tail Area—See table
Underplating—Nickel
PCB Thickness: 2.40mm (.093")

0.80mm (.031") Pitch 2-by-4 SFP Stacked Multi-Port Connector

75450/75454

25.50mm (1.004") Height With Press-Fit PC Tails With and Without Lightpipes



Order No.	Lightpipes	Tail Plating
75450-0001	2 per port	Tin/Lead
75450-5001		Tin
75450-0002	1 per port, inner	Tin/Lead
75450-5002		Tin
75450-0003	1 per port, outer	Tin/Lead
75450-5003		Tin
75454-0001	None	Tin/Lead
75454-5001		Tin

Note: Please refer to sales drawing for footprint differences between versions with and without lightpipes.

Features and Benefits

- Integrates 8 SFP ports and LED lightpipes into 1 connector
- Press-fit termination to PCB
- Fully shielded for EMI protection
- Lightpipes for port status and activity feedback

Reference Information

Product Specification: PS-75310-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: SFP transceivers or cables
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.5A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Mating Force: 40N max.
Unmating Force: 11.5N max.
Durability: 200 cycles

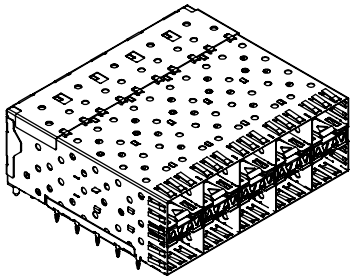
Physical

Housing: Thermoplastic
Contact: Copper Alloy
Plating: Contact Area—Gold
Tail Area—See table
Underplating—Nickel
PCB Thickness: 2.40mm (.093")

0.80mm (.031") Pitch 2-by-5 SFP Stacked Multi-Port Connector

75734/75733

25.50mm (1.004") Height With Press-Fit PC Tails With and Without Lightpipes



Order No.	Lightpipes	Tail Plating
75734-0001	2 per port	Tin/Lead
75734-5001		Tin
75734-0002	1 per port, inner	Tin/Lead
75734-5002		Tin
75734-0003	1 per port, outer	Tin/Lead
75734-5003		Tin
75733-0001	None	Tin/Lead
75733-0001		Tin

Note: Please refer to sales drawing for footprint differences between versions with and without lightpipes.

Features and Benefits

- Integrates 10 SFP ports and LED lightpipes into 1 connector
- Press-fit termination to PCB
- Fully shielded for EMI protection
- Lightpipes for port status and activity feedback

Reference Information

Product Specification: PS-75310-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: SFP transceivers or cables
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.5A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Mating Force: 40N max.
Unmating Force: 11.5N max.
Durability: 200 cycles

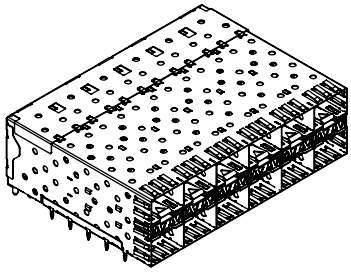
Physical

Housing: Thermoplastic
Contact: Copper Alloy
Plating: Contact Area—Gold
Tail Area—See table
Underplating—Nickel
PCB Thickness: 2.40mm (.093")

0.80mm (.031") Pitch 2-by-6 SFP Stacked Multi-Port Connector

75451/75477

25.50mm (1.004") Height With Press-Fit PC Tails With and Without Lightpipes



Order No.	Lightpipes	Tail Plating
75451-0001	2 per port	Tin/Lead
75451-5001		Tin
75451-0002	1 per port, inner	Tin/Lead
75451-5002		Tin
75451-0003	1 per port, outer	Tin/Lead
75451-5003		Tin
75477-0001	None	Tin/Lead
75477-0001		Tin

Note: Please refer to sales drawing for footprint differences between versions with and without lightpipes.

Features and Benefits

- Integrates 12 SFP ports and LED lightpipes into 1 connector
- Press-fit termination to PCB
- Fully shielded for EMI protection
- Lightpipes for port status and activity feedback

Reference Information

Product Specification: PS-75310-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: SFP transceivers or cables
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.5A max
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Mating Force: 40N max.
Unmating Force: 11.5N max.
Durability: 200 cycles

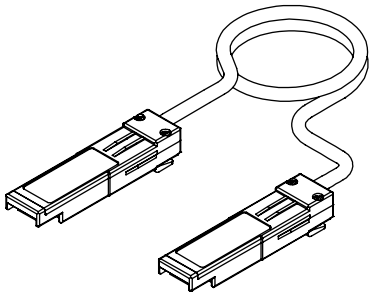
Physical

Housing: Thermoplastic
Contact: Copper Alloy
Plating: Contact Area—Gold
Tail Area—See table
Underplating—Nickel
PCB Thickness: 2.40mm (.093")

1.27mm (.050") Pitch SFP (Small Form-Factor Pluggable) Copper Cable Assembly

73929

Passive



Features and Benefits

- Compliant with SFP MSA
- Fibre Channel data rates to 2.125 Gbps
- Gigabit Ethernet data rates to 2.5 Gbps
- InfiniBand* data rates to 2.5 Gbps
- Hot pluggable
- Intuitive "squeeze and pull" latching mechanism
- Supports Serial ID functionality

Reference Information

Packaging: Bag and box
UL File No.: E72548 vol. 1C
Mates With: 74441
Use With: 73927, 74722, 74728, 74729, 74737 and 74748
Designed In: Millimeters

Electrical

Voltage: 3.3V
Current: Passive—30mA max.
Active—175mA max.

Mechanical

Durability: 250 cycles

Physical

Housing: Zinc diecast
Contact: Gold flash
Housing Plating: Nickel

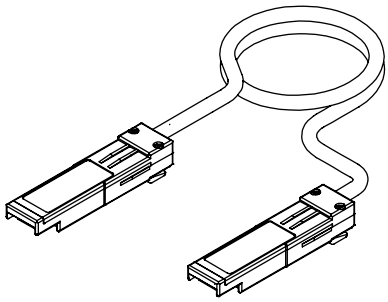
Length	Order No.	Circuitry	Lead-free
1.0m (3.28')	73929-0001	Passive	Yes
3.0m (9.84')	73929-0002		
5.0m (16.40')	73929-0003		
2.0m (6.56')	73929-0006		
0.5m (1.64')	73929-0011		

* InfiniBand is a trademark of the InfiniBand Trade Association.

4 Gbps SFP (Small Form-factor Pluggable) Copper Cable Assembly

74742
Passive

74743
Active



Features and Benefits
- Improved PCB design helps match impedance to reduce reflection at higher speeds
- Serial ID allows serial identification of each SFP transceiver
- Compliant with SFP MSA and designed to meet FC, IB and GE standards
- Unique thumblatch provides intuitive squeeze and pull latching mechanism

Reference Information
Packaging: Bag
UL File No.: E72548 vol. 1C
Mates With: 74441
Use With: 73927, 74722, 74723, 74728, 74737 and 74747
Designed In: Millimeters

Electrical
Voltage: 3.3V
Current: Passive—30mA max.
Active—175mA max.

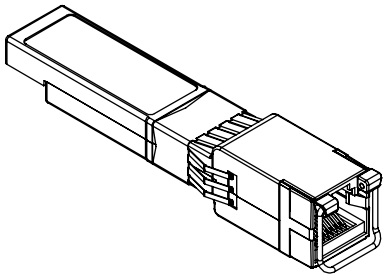
Mechanical
Durability: 250 cycles

Physical
Housing: Zinc diecast
Housing Plating: Nickel
PCB Contact: Gold

Length	Order No.	Circuitry	Lead-free
1.0m (3.28')	74742-0001	Passive	Yes
2.0m (6.56')	74742-0002		
3.0m (9.84')	74742-0003		
1.0m (3.28')	74743-0001	Active	
2.0m (6.56')	74743-0002		
3.0m (9.84')	74743-0003		
4.0m (13.12')	74743-0004		
5.0m (16.40')	74743-0005		
6.0m (19.68')	74743-0006		
7.0m (22.97')	74743-0007		
8.0m (26.25')	74743-0008		
9.0m (29.53')	74743-0009		
10.0m (32.80')	74743-0010		
11.0m (36.09')	74743-0011		
12.0m (39.37')	74743-0012		
13.0m (42.65')	74743-0013		
14.0m (45.93')	74743-0014		
15.0m (49.51')	74743-0015		

1000 BaseT RJ-45 SFP (Small Form-Factor Pluggable) Copper Transceiver

74741



Order No.	Options	Lead-free
74741-0005	Auto Negotiation On, LOS GRD	Yes
74741-0006	Auto Negotiation On, LOS Toggle	

Features and Benefits

- 1000 Base-T compliant, meets IEEE802.3z, ab
- SFP MSA compliant
- Hot pluggable, eliminating the need to power down to remove or install
- Auto negotiation software selectable
- Side-to-Side latching for increased density
- Serial ID allows individual identification of each SFP transceiver

Reference Information

Packaging: Bag
Mates With: 74441
Use With: 74737 and 73927
Designed In: Millimeters

Electrical

Voltage: 3.3V
Current: 285mA

Mechanical

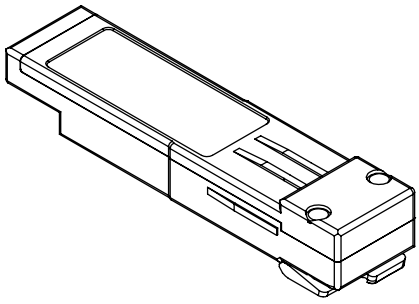
Transceiver Retention to Cage: 90N min.
Mating Force: <9N nom.
Unmating Force: <9N nom.
Durability: 50 cycles

Physical

Housing: Zinc diecast
Housing Plating: Nickel
PCB Thickness: 1.0mm (.039")

SFP (Small Form-factor Pluggable) EMI plug

74720



Order No.	Lead-free
74720-0510	Yes

Features and Benefits

- Mates to components which are compliant with SFP MSA mechanical specifications
- Raised plug wedges assure electrical contact with surrounding SFP EMI cage
- Diecast housing provides superior EMI performance
- Spring-loaded latch releases with simple squeeze and pull action

Reference Information

Packaging: Tray
Use With: 73927, 74722, 74723, 74728, 74729, 74737 and 74747 SFP cage series
Designed In: Millimeters

Mechanical

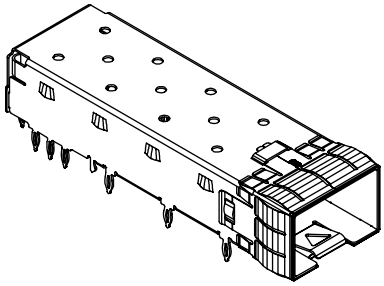
Durability: 250 cycles

Physical

Housing: Zinc diecast
Plating: Nickel

SFP+ Cage

74754
Single Port



Features and Benefits
- Press-fit, solder post and PCI pin styles enable use with various PCB thicknesses and assembly processes
- One piece stamped and formed cage is able to meet RoHS requirements by eliminating solder
- Newly designed spring finger gasket provides optimal EMI grounding

Reference Information
Packaging: Tray
Mates With: 74754 cable and 74763 loopback
Use With: 74441 connector
Designed In: Millimeters

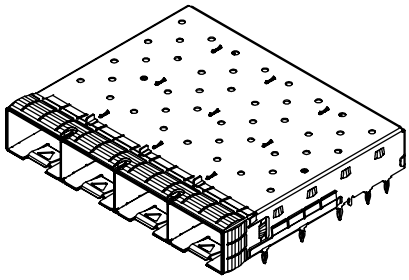
Mechanical
Durability: 1 cycle

Physical
Housing: Copper Alloy
Plating: Nickel
PCB Thickness: 1.57mm (.062") min.

Order No.	Pin/Leg Style	Pin/Leg Length	Lead-free
74754-0101	Press Fit	3.05 (.120)	Yes
74754-0102	Press Fit (Belly-to-belly)	2.29 (.090)	
74754-0103	Solder Post	3.38 (.133)	
74754-0104	Press Fit	3.05 (.120)	
74754-0105	Press Fit	3.05 (.120)	
74754-0106	Solder Post	PCI	

SFP+ Cage

74754
Ganged



Features and Benefits
- Newly designed spring finger gaskets offer optimal EMI grounding
- 360˚ gaskets and underbelly EMI fingers provide multiple points of contact to break up EMI
- Ganged SFP design offers significant PCB width savings over single cage solutions
- Ganged cages accommodate belly-to-belly applications for best use of PCB real estate

Reference Information
Packaging: Tray
Mates With: 74754 and 74765
Use With: 74441 connector and 74754 lightpipe covers
Designed In: Millimeters

Mechanical
Durability: 1 cycle

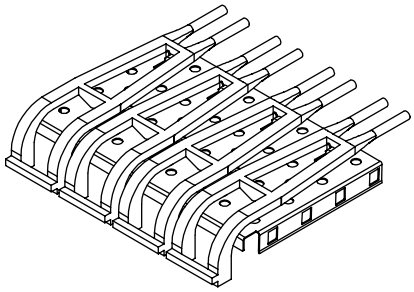
Physical
Cage housing: Copper Alloy
Plating: Nickel
PCB Thickness: 1.57mm (.062") min.

Order No.	Port Size	Bezel Gasket Material	Mounting	Lead-free
74754-0210	1 by 2	Elastomer	Press fit pins	Yes
74754-0220		Metal spring fingers		
74754-0410	1 by 4	Elastomer		
74754-0420		Metal spring fingers		
74754-0510	1 by 5	Elastomer		
74754-0520		Metal spring fingers		
74754-0610	1 by 6	Elastomer		
74754-0620		Metal spring fingers		

SFP+ Lightpipe Covers

74754

For Single and Multiport EMI Cages Low Profile



Features and Benefits

- Lightpipes compensate for misalignment and help ensure uniform panel illumination
- Mechanically attaching lightpipes to the lightpipe cover reduces assembly time and eliminates processing issues
- Cage mounted tabs ensure proper cover placement

Reference Information

Packaging: Tray
Mates With: 74754 cages
Designed In: Millimeters

Mechanical

Durability: 1 cycle—Lightpipe to cover

Physical

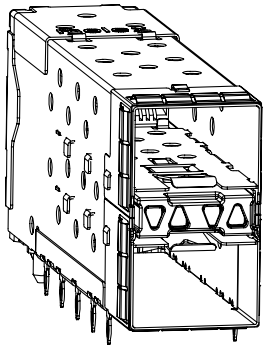
Lightpipe: UL 94V-0
Lightpipe Cover: Copper Alloy
Lightpipe Cover Plating: Nickel

Order No.	Description	Lightpipe Location	Lead-free
74754-0011	1 by 1	Rear Mount	Yes
74754-0021	1 by 2		
74754-0041	1 by 4		
74754-0051	1 by 5		
74754-0061	1 by 6		

0.80mm (.031") Pitch 2-by-1 SFP+ Stacked Multi-Port Connector

76090/76100/76044/76064

Press-Fit, Metal or Elastomeric Gasket With and without Lightpipes



Features and Benefits

- Integrates 2 SFP ports and LED lightpipes into 1 connector
- Press-fit termination to PCB
- Fully shielded for EMI protection
- Lightpipes for port status and activity feedback

Reference Information

Product Specification: PS-75310-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: SFP transceivers or cables
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.5A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Mating Force: 40N max.
Unmating Force: 11.5N max.
Durability: 200 cycles

Physical

Housing: Thermoplastic
Contact: Copper Alloy
Plating: Contact Area—Gold
Tail Area—See table
Underplating—Nickel
PCB Thickness: 2.40mm (.093")

Elastomeric Gasket

Order No.	Lightpipes	Tail Plating
76090-0001	2 per port	Tin/Lead
76090-5001		Tin
76090-0002	1 per port, inner	Tin/Lead
76090-5002		Tin
76090-0003	1 per port, outer	Tin/Lead
76090-5003		Tin
76100-0001	None	Tin/Lead
76100-5001	None	Tin

Metal Gasket

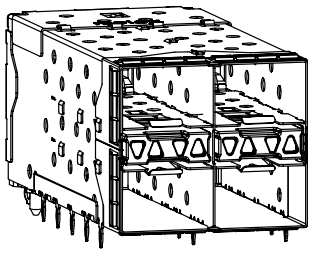
Order No.	Lightpipes	Tail Plating
76044-0001	2 per port	Tin/Lead
76044-5001		Tin
76044-0002	1 per port, inner	Tin/Lead
76044-5002		Tin
76044-0003	1 per port, outer	Tin/Lead
76044-5003		Tin
76064-0001	None	Tin/Lead
76064-5001	None	Tin

Note: Please refer to sales drawing for footprint differences between versions with and without lightpipes

0.80mm (.031") Pitch 2-by-2 SFP+ Stacked Multi-Port Connector

76091/76101/76045/76065

Press-Fit, Metal or Elastomeric Gasket
With and without Lightpipes



Features and Benefits
- Integrates 4 SFP ports and LED lightpipes into 1 connector
- Press-fit termination to PCB
- Fully shielded for EMI protection
- Lightpipes for port status and activity feedback

Reference Information
Product Specification: PS-75310-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: SFP transceivers or cables
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 0.5A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 100 Megohms min.

Mechanical
Mating Force: 40N max.
Unmating Force: 11.5N max.
Durability: 200 cycles

Physical
Housing: Thermoplastic
Contact: Copper Alloy
Plating: Contact Area—Gold
Tail Area—See table
Underplating—Nickel
PCB Thickness: 2.40mm (.093")

Elastomeric Gasket

Order No.	Lightpipes	Tail Plating
76091-0001	2 per port	Tin/Lead
76091-5001		Tin
76091-0002	1 per port, inner	Tin/Lead
76091-5002		Tin
76091-0003	1 per port, outer	Tin/Lead
76091-5003		Tin
76101-0001	None	Tin/Lead
76101-5001	None	Tin

Metal Gasket

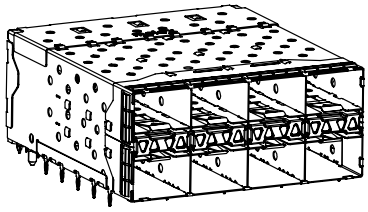
Order No.	Lightpipes	Tail Plating
76045-0001	2 per port	Tin/Lead
76045-5001		Tin
76045-0002	1 per port, inner	Tin/Lead
76045-5002		Tin
76045-0003	1 per port, outer	Tin/Lead
76045-5003		Tin
76065-0001	None	Tin/Lead
76065-5001	None	Tin

Note: Please refer to sales drawing for footprint differences between versions with and without lightpipes

0.80mm (.031") Pitch 2-by-4 SFP+ Stacked Multi-Port Connector

76092/76102/76046/76066

Press-Fit, Metal or Elastomeric Gasket
With and without Lightpipes



Features and Benefits
- Integrates 8 SFP ports and LED lightpipes into 1 connector
- Press-fit termination to PCB
- Fully shielded for EMI protection
- Lightpipes for port status and activity feedback

Reference Information
Product Specification: PS-75310-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: SFP transceivers or cables
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 0.5A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 100 Megohms min.

Mechanical
Mating Force: 40N max.
Unmating Force: 11.5N max.
Durability: 200 cycles

Physical
Housing: Thermoplastic
Contact: Copper Alloy
Plating: Contact Area—Gold
Tail Area—See table
Underplating—Nickel
PCB Thickness: 2.40mm (.093")

Elastomeric Gasket

Order No.	Lightpipes	Tail Plating
76092-0001	2 per port	Tin/Lead
76092-5001		Tin
76092-0002	1 per port, inner	Tin/Lead
76092-5002		Tin
76092-0003	1 per port, outer	Tin/Lead
76092-5003		Tin
76102-0001	None	Tin/Lead
76102-5001	None	Tin

Metal Gasket

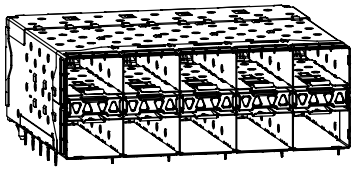
Order No.	Lightpipes	Tail Plating
76046-0001	2 per port	Tin/Lead
76046-5001		Tin
76046-0002	1 per port, inner	Tin/Lead
76046-5002		Tin
76046-0003	1 per port, outer	Tin/Lead
76046-5003		Tin
76066-0001	None	Tin/Lead
76066-5001	None	Tin

Note: Please refer to sales drawing for footprint differences between versions with and without lightpipes

0.80mm (.031") Pitch 2-by-5 SFP+ Stacked Multi-Port Connector

76093/76103/76047/76067

Press-Fit, Metal or Elastomeric Gasket
With and without Lightpipes



Features and Benefits
- Integrates 10 SFP ports and LED lightpipes into 1 connector
- Press-fit termination to PCB
- Fully shielded for EMI protection
- Lightpipes for port status and activity feedback

Reference Information
Product Specification: PS-75310-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: SFP transceivers or cables
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 0.5A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 100 Megohms min.

Mechanical
Mating Force: 40N max.
Unmating Force: 11.5N max.
Durability: 200 cycles

Physical
Housing: Thermoplastic
Contact: Copper Alloy
Plating: Contact Area—Gold
Tail Area—See table
Underplating—Nickel
PCB Thickness: 2.40mm (.093")

Elastomeric Gasket

Order No.	Lightpipes	Tail Plating
76093-0001	2 per port	Tin/Lead
76093-5001		Tin
76093-0002	1 per port, inner	Tin/Lead
76093-5002		Tin
76093-0003	1 per port, outer	Tin/Lead
76093-5003		Tin
76103-0001	None	Tin/Lead
76103-5001	None	Tin

Metal Gasket

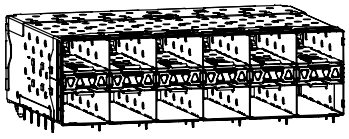
Order No.	Lightpipes	Tail Plating
76047-0001	2 per port	Tin/Lead
76047-5001		Tin
76047-0002	1 per port, inner	Tin/Lead
76047-5002		Tin
76047-0003	1 per port, outer	Tin/Lead
76047-5003		Tin
76067-0001	None	Tin/Lead
76067-5001	None	Tin

Note: Please refer to sales drawing for footprint differences between versions with and without lightpipes

0.80mm (.031") Pitch 2-by-6 SFP+ Stacked Multi-Port Connector

76094/76104/76048/76068

Press-Fit, Metal or Elastomeric Gasket
With and without Lightpipes



Features and Benefits
- Integrates 12 SFP ports and LED lightpipes into 1 connector
- Press-fit termination to PCB
- Fully shielded for EMI protection
- Lightpipes for port status and activity feedback

Reference Information
Product Specification: PS-75310-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: SFP transceivers or cables
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 0.5A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 100 Megohms min.

Mechanical
Mating Force: 40N max.
Unmating Force: 11.5N max.
Durability: 200 cycles

Physical
Housing: Thermoplastic
Contact: Copper Alloy
Plating: Contact Area—Gold
Tail Area—See table
Underplating—Nickel
PCB Thickness: 2.40mm (.093")

Elastomeric Gasket

Order No.	Lightpipes	Tail Plating
76094-0001	2 per port	Tin/Lead
76094-5001		Tin
76094-0002	1 per port, inner	Tin/Lead
76094-5002		Tin
76094-0003	1 per port, outer	Tin/Lead
76094-5003		Tin
76104-0001	None	Tin/Lead
76104-5001	None	Tin

Metal Gasket

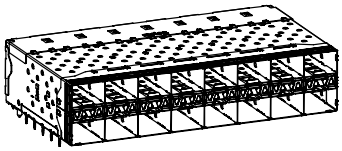
Order No.	Lightpipes	Tail Plating
76048-0001	2 per port	Tin/Lead
76048-5001		Tin
76048-0002	1 per port, inner	Tin/Lead
76048-5002		Tin
76048-0003	1 per port, outer	Tin/Lead
76048-5003		Tin
76068-0001	None	Tin/Lead
76068-5001	None	Tin

Note: Please refer to sales drawing for footprint differences between versions with and without lightpipes

0.80mm (.031") Pitch 2-by-8 SFP+ Stacked Multi-Port Connector

76352

Press-Fit, Metal Gasket With Lightpipes



Features and Benefits

- Integrates 16 SFP ports and LED lightpipes into 1 connector
- Press-fit termination to PCB
- Fully shielded for EMI protection
- Lightpipes for port status and activity feedback

Reference Information

Product Specification: PS-75310-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: SFP transceivers or cables
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.5A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Mating Force: 40N max.
Unmating Force: 11.5N max.
Durability: 200 cycles

Physical

Housing: Thermoplastic
Contact: Copper Alloy
Plating: Contact Area—Gold
Tail Area—See table
Underplating—Nickel
PCB Thickness: 2.40mm (.093")

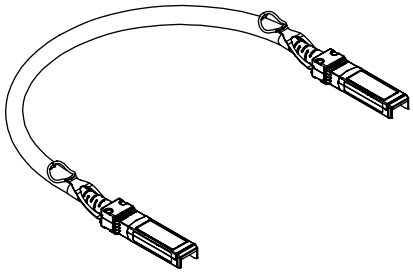
Order No.	Lightpipes	Tail Plating
76352-0001	2 per port	Tin/Lead
76352-5001		Tin
76352-0002	1 per port, inner	Tin/Lead
76352-5002		Tin
76352-0003	1 per port, outer	Tin/Lead
76352-5003		Tin

Note: Please refer to sales drawing for footprint differences between versions with and without lightpipes

0.80mm (.031") Pitch SFP+ Cables

74752

Copper Patch Cables



Features and Benefits

- Copper cable data transmission meets customer requirements for speeds up to 10 Gbps and up to 20 meters
- Redesigned pull latch enables belly-to-belly cable use
- Identical dimensions to SFP enable backwards compatibility
- EMI girdle provides superior EMI performance

Reference Information

Packaging: Box
Mates With: 74441
Use With: 74754, 76044, 76045, 76046, 76047, 76048, 76090, 76091, 76092, 76093 and 76094
Designed In: Millimeters

Electrical

Voltage: 3.3V
Current: 30mA max.

Mechanical

Durability: 250 cycles

Physical

Housing: Zinc die cast
Plating: Nickel
PCB contact: Gold

Order No.	Length	Cable Gauge	Lead-free
74752-1051	0.50m (1.64')	30	Yes
74752-1101	1.0m (3.28')		
74752-1301	3.0m (9.84')		
74752-1501	5.0m (16.40')		
74752-1701	7.0m (22.96')		
74752-2051	0.50m (1.64')	28	
74752-2101	1.0m (3.28')		
74752-2301	3.0m (9.84')		
74752-2501	5.0m (16.40')		
74752-2701	7.0m (22.96')		

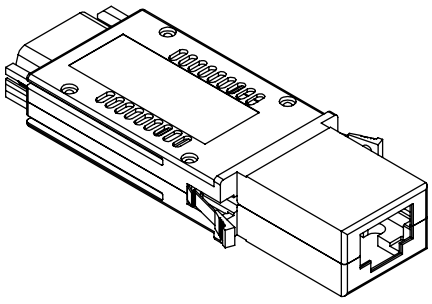
Order No.	Length	Cable Gauge	Lead-free
74752-3051	0.50m (1.64')	26	Yes
74752-3101	1.0m (3.28')		
74752-3301	3.0m (9.84')		
74752-3501	5.0m (16.40')		
74752-3701	7.0m (22.96')		
74752-4051	0.50m (1.64')	24	
74752-4101	1.0m (3.28')		
74752-4301	3.0m (9.84')		
74752-4501	5.0m (16.40')		
74752-4701	7.0m (22.96')		

Passive cables available in lengths up to 20m depending on cable gauge

www.molex.com/product/sfp-plus.html

1000 BaseT RJ-45 GBIC Copper Transceiver

74740



Features and Benefits

- 1000 Base-T compliant, meets IEEE802.3z, ab
- GBIC SFF-8053 Rev 5.5 compliant for improved intermatability
- Hot pluggable, eliminating the need to power down to remove or install
- Auto negotiation software selectable
- Link monitor detects loss of signal
- Serial ID allows individual identification of each GBIC transceiver

Reference Information

Packaging: Bag
Mates With: 74065
Use With: 73847
Designed In: Millimeters

Electrical

Voltage: 5V
Current: 350mA

Mechanical

Durability: 250 cycles

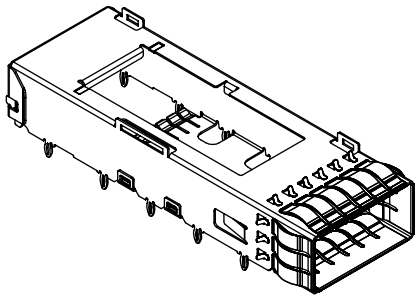
Physical

Housing: Zinc diecast
Housing Plating: Nickel
PCB Thickness: 1.57mm (.062")

Order No.	Options	Lead-free
74740-0001	Auto Negotiation On, LOS GRD	Yes
74740-0002	Auto Negotiation On, LOS Toggle	
74740-0003	Auto Negotiation Off, LOS Toggle	

QSFP Cages

74750
EMI Cage



Features and Benefits
- MSA QSFP cages accept copper cables and fiber optic modules
- Spring finger and elastomer gasket options offer design flexibility and optimal EMI grounding
- Blocking keys prevent mis-mating by XFP modules

Reference Information
Packaging: Tray
Mates With: 74757 and 74763
Use With: 75586
Designed In: Millimeters

Mechanical
Insertion Force to PCB: 100 lbf max.
Durability: 1 cycle

Physical
Housing: Copper Alloy
Plating: Nickel

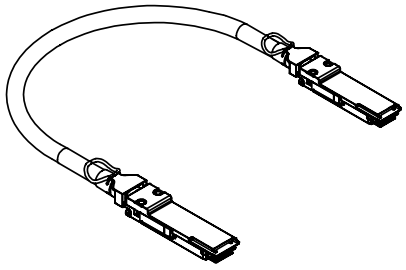
Cages			
Order No.	**Gasket Style**	**Pin Placement**	**Lead-free**
74750-0021	EMI Spring Finger	Two rear press fit	Yes
74750-0022	Elastomer		
74750-0023	EMI Spring Finger	No rear pins	
74750-0025	Elastomer		

Light Pipes	
74750-0030	Single light pipe
74750-0031	Dual light pipe

Heat Sink	Heat Sink Clip
74750-0300	74750-0305

0.80mm (.031") Pitch QSFP Cables

74757
Copper Patch Cables



Features and Benefits
- Cables meet QSFP MSA standard
- Data rates scale up to 10 Gbps per lane providing higher bandwidth than SFP
- Unique pull to release latch enables belly-to-belly cable use and higher port density

Reference Information
Packaging: Bag
Mates With: 75586
Use With: 74750
Designed In: Millimeters

Electrical
Voltage: 3.3V
Current: 30mA max.

Mechanical
Contact Insertion Force: 40N (9.0 lbf) max.
Contact Retention to Housing: 90N (20.2 lbf) min.
Durability: 250 mating cycles

Physical
Back shell Housing: Zinc die cast
Plating: Nickel
PCB contact: Gold

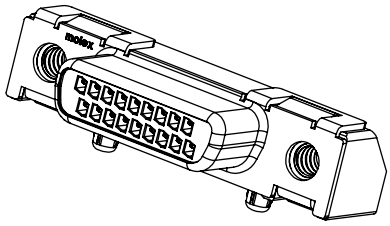
Order No.	Length	Cable Gauge	Lead-free
74757-1101	1.0m (3.28')	30	Yes
74757-1301	3.0m (6.56')		
74757-1501	5.0m (16.40')		
74757-9001	10.0m (32.80')		
74757-9006	15.0m (49.20')		
74757-2101	1.0m (3.28')	28	
74757-3301	3.0m (6.56')		
74757-3501	5.0m (16.40')		
74757-9003	10.0m (32.80')		
74757-9007	15.0m (49.20')		

Order No.	Length	Cable Gauge	Lead-free
74757-3101	1.0m (3.28')	26	Yes
74757-3301	3.0m (6.56')		
74757-3501	5.0m (16.40')		
74757-9004	10.0m (32.80')		
74757-9008	15.0m (49.20')		
74757-4101	1.0m (3.28')	24	
74757-4301	3.0m (6.56')		
74757-4501	5.0m (16.40')		
74757-9005	10.0m (32.80')		
74757-9009	15.0m (49.20')		

1.27mm (.050") Pitch PCIe 1X Receptacle

74150

SMT, Right Angle



Features and Benefits

- Complies with the PCI SIG specifications
- Supports 2.5 Gbps data transfer rate for Gen I and 5.0 Gbps data transfer rates for Gen II
- Inline SMT leads on 0.64mm (.025") pitch provide direct PCB routing
- High cycle LFH™ shrouded contact system provides 2 points of contact for optimal signal integrity
- Optional jack posts available in 4-40 or M3 threads for use with jackscrews for positive mating retention

Reference Information

Packaging: Embossed tape
Mates With: 74155 plug
Use With: 74962 jackposts
Designed In: Millimeters

Electrical

Voltage: 40V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 100 Megohms min.
Differential Impedance:
2.5 Gbps: 100 ± 10 ohms at 150psec risetime
5.0 Gbps: 100 ± 18 ohms at 75psec risetime

Mechanical

Contact Insertion Force: 0.60N (0.13 lbf) per circuit
Insertion Force to PCB: 44.50N (10.00 lbf) total
Mating Force: 11.17N (2.51 lbf) per circuit
Unmating Force: 6.7N (1.5 lbf) per circuit
Normal Force: 75 grams
Durability: 1,500 cycles

Physical

Housing: Black LCP, UL 94V-0
Contact: Copper Alloy
Plating: 15µ" min. Select Gold
Shield: Deep-drawn Steel

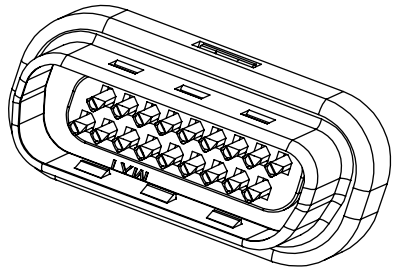
Circuits	Order No.	Threaded inserts*	Lead-free
18	74150-0001	4-40	Yes

* Also available with M3 threaded inserts

1.27mm (.050") Pitch PCIe 1X Plug

74155

Wire Terminated Cable Plug



Features and Benefits

- Complies with the PCI SIG specifications
- Supports 2.5 Gbps data transfer rate for Gen I and 5.0 Gbps data transfer rates for Gen II
- First-mate/last-break pins B1 and A9 prevent damage to electrical circuitry when "hot plug" mating
- LFH™ contact design provides shallow mating angle, reducing insertion forces
- Terminates to 24 to 32 AWG high-performance wire through soldering or resistance welding
- Standard and custom cable assemblies available, 74576 series

Reference Information

Packaging: Tubes
Mates With: 74150 receptacle
Designed In: Millimeters

Electrical

Voltage: 40V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 200 Megohms min.
Differential Impedance:
2.5Gbps: 100 ± 10 ohms at 150psec risetime
5.0Gbps: 100 ± 18 ohms at 75psec risetime

Mechanical

Contact Insertion Force: 0.60N (0.13 lbf) per circuit
Insertion Force to PCB: 44.50N (10.00 lbf) total
Mating Force: 11.17N (2.51 lbf) per circuit
Unmating Force: 6.7N (1.5 lbf) per circuit
Normal Force: 75 g
Durability: 1,500 cycles

Physical

Housing: Black LCP, UL 94V-0
Contact: Copper Alloy
Plating: 15µ" min. Select Gold
Shield: Deep-drawn Steel

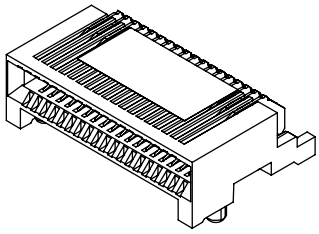
Circuits	Order No.	Description	Lead-free
18	74155-0001	Plug assembled with pre-trimmed tails	Yes

Also available in Nickel-plated tails for terminations requiring welding

0.80mm (.031") Pitch iPass™ Wire-to-Board Host Connector

75586

Right Angle, SMT



Features and Benefits

- Designed for placement beneath guide frame for external applications
- High-temperature thermoplastic for lead-free processing
- Alignment posts provide stability for placement on the PCB
- Standoffs allow for easy PCB cleaning after soldering
- SMT design allows for ease of routing and provides the option for placement on both sides of the PCB

Reference Information

Product Specification: PS-75586-001
Packaging: Tape and reel
Mates With: 74546 and 74547
Use With: 74540 and 74548
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.5A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 4.5N min.
Mating Force: 2.36N per circuit
Unmating Force: 0.15N per circuit
Normal Force: 0.49N min.
Durability: 250 cycles

Physical

Housing: Black glass-filled high-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold
Solder Tail Area—Tin
Underplating—Nickel

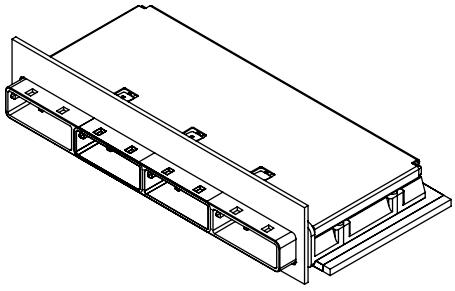
Circuits	Order No.	Plating	Lead-free
26	75586-0004	0.38 (15µ") Gold	Yes
	75586-0009	0.76 (30µ") Gold	
36	75586-0003	0.38 (15µ") Gold	
	75586-0008	0.76 (30µ") Gold	
38	75586-0010	0.38 (15µ") Gold	
	75586-0011	0.76 (30µ") Gold	
50	75586-0001	0.38 (15µ") Gold	
	75586-0006	0.76 (30µ") Gold	
68	75586-0002	0.38 (15µ") Gold	
	75586-0007	0.76 (30µ") Gold	

www.molex.com/product/iPass.html

(1.18") Pitch Cage-to-Cage (0.75") Pitch Port-to-Port iPass™ Wire-to-Board Multi-port Guide Frame

74548

SAS/SATA



Features and Benefits

- Multiple guide rail configurations provide board design flexibility
- Diecast guide rail provides robust chassis-to-chassis interface
- Guide frame gaskets provide improved EMI performance
- Screw attachment for the guide rail to PCB provides a durable I/O connection during the cable management process

Reference Information

Packaging: Tray
Mates With: 74547
Use With: 75586
Designed In: Millimeters

Mechanical

Retention to PCB: Threaded Screw—M2

Physical

Housing: Zinc diecast
Housing Plating: Nickel over Tin

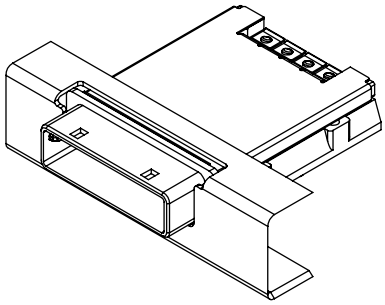
Order No.	Port Size	Key	Lead-free
74548-0117	1 by 4 EMI Guide Housing Assembly 1 Degree—SAS	2	Yes
74548-0118	1 by 2 EMI Guide Housing Assembly 1 Degree—SAS		
74548-0119	1 by 1 EMI Guide Housing Assembly 1 Degree—SAS		
74548-0120	1 by 4 EMI Guide Housing Assembly 1 Degree—SAS	6	
74548-0121	1 by 2 EMI Guide Housing Assembly 1 Degree—SAS		
74548-0122	1 by 1 EMI Guide Housing Assembly 1 Degree—SAS		
74548-0123	1 by 4 EMI Guide Housing Assembly 1 Degree—SRiO	3	
74548-0124	1 by 2 EMI Guide Housing Assembly 1 Degree—SRiO		
74548-0125	1 by EMI Guide Housing Assembly 1 Degree—SRiO		

Order No.	Port Size	Key	Lead-free
74548-0217	1 by 4 EMI Guide Housing Assembly 0 Degree—SAS	2	Yes
74548-0218	1 by 2 EMI Guide Housing Assembly 0 Degree—SAS		
74548-0219	1 by 1 EMI Guide Housing Assembly 0 Degree—SAS		
74548-0220	1 by 4 EMI Guide Housing Assembly 0 Degree—SAS	6	
74548-0221	1 by 2 EMI Guide Housing Assembly 0 Degree—SAS		
74548-0222	1 by 1 EMI Guide Housing Assembly 0 Degree—SAS		
74548-0223	1 by 4 EMI Guide Housing Assembly 0 Degree—SRiO	3	
74548-0224	1 by 2 EMI Guide Housing Assembly 0 Degree—SRiO		
74548-0225	1 by EMI Guide Housing Assembly 0 Degree—SRiO		

0.80mm (.031") Pitch iPass™ Wire-to-Board Guide Frame

74540

X4 and X8 PCIe



Features and Benefits

- Diecast guide frame provides robust cable-to-chassis interface
- Guide frame gaskets provide improved EMI performance
- Multiple guide frame configurations provide board design flexibility
- Alignment posts provide stability for placement on the PCB
- Screw attachment for the guide frame provides sturdy, durable connection to the PCB

Reference Information

Packaging: Tray
Mates With: 74546
Use With: 75586
Designed In: Millimeters

Mechanical

Retention to PCB: Threaded Screw—M2

Physical

Housing: Zinc diecast
Plating: Nickel over Tin

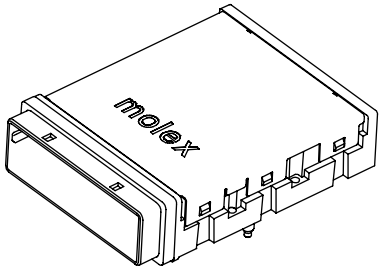
Circuits	Lane	Order No.	Application	Lead-free
38	4X	74540-0401	PCIe add-in cards	Yes
		74540-0501	Standard host boards	
68	8X	74540-0101	PCIe add-in cards	
		74540-0201	Standard host boards	

www.molex.com/hpc/

0.80mm (.031") Pitch iPass™ Wire-to-Board Integrated Connector Assembly

75581

Compliant Pin, Right Angle X16 PCIe



Features and Benefits

- Integrated press-fit connector assembly with cage provides one-step placement to PCB
- Four integral screw mount hold downs applied from the bottom of the PCB provide optimal retention of the die cast assembly to the PCB without taking up additional real estate
- Low profile height (13.13mm) fits standard and low profile PCIe add-in cards
- Two robust guide pins located on each side help to align assembly to PCB
- Front elastomeric gasket provides improved EMI protection to face plate
- Eight ground pad alleys are located at the rear of the die cast assembly to provide ease of routing off top layers of PCB

Reference Information

Product Specification: PS-75586-001
Packaging: Tray
Mates With: 74546
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.5A
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 2.36N per circuit
Unmating Force: 0.15N per circuit
Normal Force: 0.49N min.
Durability: 250 Cycles

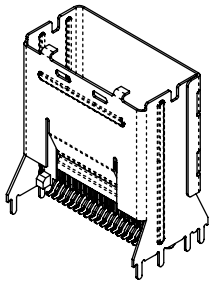
Physical

Housing: Black glass-filled high-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold
Solder Tail Area—Tin
Underplating—Nickel
PCB Thickness: .070" min.

Circuits	Order No.	Plating	Lead-free
136	75581-0001	0.38 (15µ") Gold	RoHs compliant by exemption
	75581-0002	0.76 (30µ") Gold	

0.80mm (.031") Pitch iPass™ Wire-to-Board Host Connector/Shell Kit

75784
Vertical



Features and Benefits
- SMT host connector is packaged with vertical shell for one-step placement to the PCB
- Pre-positioning device aligns the connector to the shell and acts as disposable cap for robotic placement to PCB
- Four keying options prevent mismating
- Retention-fit, through hole and SMT shell configurations provide processing flexibility
- Multiple solder tail lengths accommodate PCB thickness from 1.57 to 3.18mm
- Tape-and-reel packaging for robotic placement to PCB

Reference Information
Product Specification: PS-75783-001
Packaging: Tape and reel
Mates With: 79536, 79576 and 74562
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 0.5A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 4.5N min.
Insertion Force to PCB: 25N max.
Mating Force: 2.36N per circuit
Unmating Force: 0.15N per circuit
Normal Force: 0.49N min.
Durability: 25 cycles

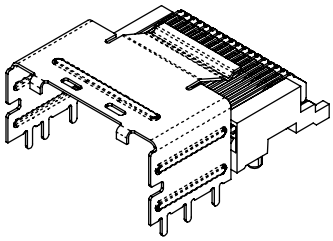
Physical
Housing: Black glass-filled high-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.38µm (15µ") and 0.76µm (30µ") Gold
Solder Tail Area—Tin
Underplating—Nickel

Circuits	Order No.	Shell PCB	PC Tail Length	Shell Key	Lead-free
26	75784-0009	Retention-fit	1.96mm	Dual	Yes
	75784-0031	Through Hole			
	75784-0012	SMT			
36	75784-0109	Retention-fit	1.96mm		
	75784-0131	Through Hole	1.96mm		
	75784-0139	Through Hole	2.79mm		
	75784-0147	Through Hole	3.18mm		
	75784-0155	Through Hole	3.56mm		
	75784-0112	SMT	1.96mm		
50	75784-0209	Retention-fit	1.96mm		
	75784-0231	Through Hole			
	75784-0212	SMT			
68	75784-0309	Retention-fit	1.96mm		
	75784-0331	Through Hole			
	75784-0312	SMT			

Note: See Sales Drawing for 0.76µm (30µ") ordering information

0.80mm (.031") Pitch iPass™ Wire-to-Board Host Connector/Shell Kit

75783
Right Angle



Features and Benefits
- SMT host connector is packaged with right angle shell for one-step placement to the PCB
- Pre-positioning device aligns the connector to the shell and acts as disposable cap for robotic placement to PCB
- Four keying options prevent mismating
- Retention-fit, through hole and SMT shell configurations provide processing flexibility
- Multiple solder tail lengths accommodate PCB thickness from 1.57 to 3.18mm
- Tape-and-reel packaging for robotic placement to PCB

Reference Information
Product Specification: PS-75783-001
Packaging: Tape and reel
Mates With: 79536, 79576 and 74562
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 0.5A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention to Housing: 4.5N min. per circuit
Insertion Force to PCB: 25N max.
Mating Force: 2.36N per circuit
Unmating Force: 0.15N per circuit
Normal Force: 0.49N min.
Durability: 25 cycles

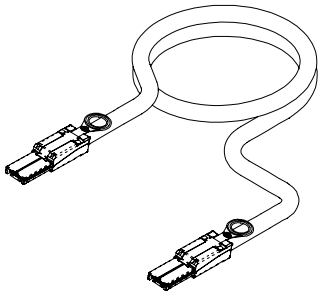
Physical
Housing: Black glass-filled high-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.38µm (15µ") and 0.76µm (30µ") Gold
Solder Tail Area—Tin
Underplating—Nickel

Circuits	Order No.	Shell PCB	PC Tail Length	Shell Key	Lead-free
26	75783-0009	Retention-fit	1.96mm	Dual	Yes
	75783-0031	Through Hole			
	75783-0012	SMT			
36	75783-0109	Retention-fit	1.96mm		
	75783-0131	Through Hole	1.96mm		
	75783-0139	Through Hole	2.79mm		
	75783-0147	Through Hole	3.18mm		
	75783-0155	Through Hole	3.56mm		
	75783-0112	SMT	1.96mm		
50	75783-0209	Retention-fit	1.96mm		
	75783-0231	Through Hole			
	75783-0212	SMT			
68	75783-0309	Retention-fit	1.96mm		
	75783-0331	Through Hole			
	75783-0312	SMT			

Note: See Sales Drawing for 0.76µm (30µ") ordering information

0.80mm (.031") Pitch iPass™ External Cable Mini Multi-Lane Cable Assembly

74547
Double-ended, 26-Circuit



Features and Benefits
- Reduced plug width provides the ability to support a higher number of ports in the same space as the SFF-8470 solution
- High performance paddle card design provides improved signal integrity through impedance matching and reduced crosstalk
- Cable snout gasket provides improved EMI performance
- Loopback module available for SAS, CX4

Reference Information
Mates With: 75586
Use With: 74548
Designed In: Millimeters

Electrical
Voltage: 30V AC
Current: 1.0A

Mechanical
Latch-to-Cage Retention Force: 88.96N (20 lbf)
Mating Force: 68.95N (15.5 lbf)
Unmating Force: 62.28N (14 lbf)
Durability: 250 cycles

Physical
Housing: Zinc diecast
Housing Plating: Nickel over Zinc
PCB Contact: Gold over Nickel

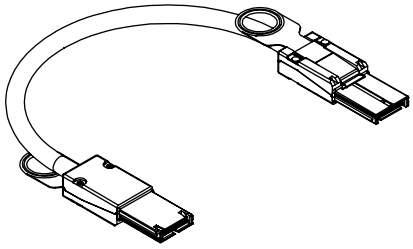
Length	Order No.	Protocol	Key	Lead-free
1.0m (3.28')	74547-0101	SFF-8088 SAS	2,4	Yes
3.0m (9.84')	74547-0103			
6.0m (19.68')	74547-0106			
1.0m (3.28')	74547-0201		4,6	
3.0m (9.84')	74547-0203			
6.0m (19.68')	74547-0206			
1.0m (3.28')	74547-0301		2,4,6	
3.0m (9.84')	74547-0303			
6.0m (19.68')	74547-0306			
3.0m (9.84')	74547-0399			
1.0m (3.28')	74547-0120		2,4-4,6	
3.0m (9.84')	74547-0122			
6.0m (19.68')	74547-0125			
1.0m (3.28')	74547-0001	SFF-8088 SATA	1, 4	
3.0m (9.84')	74547-0003			
6.0m (19.68')	74547-0006			
1.0m (3.28')	74547-0401		7	
3.0m (9.84')	74547-0403			
6.0m (19.68')	74547-0406			
1.0m (3.28')	74547-5001	SRiO	3	
3.0m (9.84')	74547-5003			
6.0m (19.68')	74547-5006			
1.0m (3.28')	74547-7001	CX4	2, 7	
5.0m (16.4')	74547-7005			
10.0m (32.80')	74547-7010			
15.0m (49.20')	74547-7015			
	74547-0699	Loopback		

Note: Additional lengths available on sales drawing shown on website.

0.80mm (.031") Pitch iPass™ PCIe Cable

74546

4X, 8X, 16X PCIe



Features and Benefits

- Reduced plug width allows customers to populate (4)x4 ports and (2)x8 ports on a standard PCIe card
- Lower external plug profile reduces cable bend radius versus standard 4x LaneLink™ cable assemblies
- Flexible latch pull provides an intuitive latch and unlatch mechanism

Reference Information

Packaging: Box
Mates With: 75586
Use With: 74540
Designed In: Millimeters

Electrical

Voltage: 30V AC
Current: 1.0A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 240V
Insulation Resistance: 40 Megohms min.

Mechanical

Latch to Cage Retention Force: 20 lbf min.
Durability: 250 cycles

Physical

Housing: Zinc diecast
PCB Contact: Gold over Nickel
Housing Plating: Nickel over Zinc

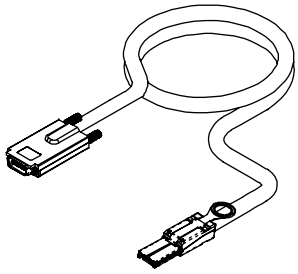
Length	Order No.	Lane/Circuits	Lead-free
1.0m (3.28')	74546-0401	4X/38	Yes
7.0m (22.96')	74546-0407		
1.0m (3.28')	74546-0801	8X/68	
7.0m (22.96')	74546-0807		
1.0m (3.28')	74546-1601	16X/136	
7.0m (22.96')	74546-1607		

Note: Additional lengths available on sales drawing shown on website.

0.80mm (.031")/ 0.50mm (.020") Pitch iPass™ to LaneLink™ External Mini Multi-Lane to External Multi-Lane Cable Assembly

74547

26 Circuit External iPass to 4X LaneLink Cable



Features and Benefits

- Sturdy jackscrew hardware provides user with guaranteed mating to the PCB connector
- Diecast backshell provides EMI protection
- High-performance paddle card design provides improved signal integrity through impedance matching and reduced crosstalk
- Cable snout gasket provides improved EMI performance

Reference Information

iPass
Mates With: 75586
Use With: 74548
Designed In: Millimeters

LaneLink
Mates With: 91659
Use With: 74735 and 74739
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.0A

Mechanical

iPass
Latch-to-Cage Retention Force: 88.96N (20 lbf)
Mating Force: 68.95N (15.5 lbf)
Unmating Force: 62.28N (14 lbf)
Durability: 250 cycles

LaneLink
Mating Force: 55.5N (12.48 lbf)
Unmating Force: 49.0N (11.02 lbf)
Durability: 250 cycles

Physical

iPass
Housing: Zinc diecast
Housing Plating: Nickel over Zinc
PCB Contact: Gold over Nickel

LaneLink
Housing: Zinc diecast
Contact: Gold flashw
Housing Plating: Nickel

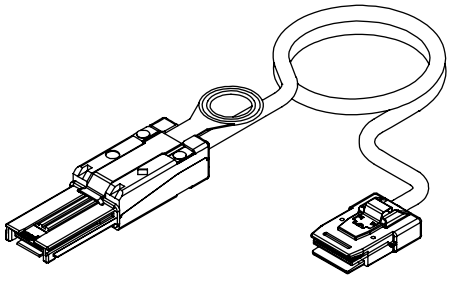
Protocol	Order No.	Length	Key	Lead-free
SAS	74547-2021	1.0m (3.28')	2, 4	Yes
	74547-2023	3.0m (9.84')		
	74547-2026	6.0m (19.68')		
	74547-2041	1.0m (3.28')	4, 6	
	74547-2043	3.0m (9.84')		
	74547-2046	6.0m (19.68')		
	74547-2051	1.0m (3.28')	2, 4, 6	
	74547-2053	3.0m (9.84')		
	74547-2056	6.0m (19.68')		
SATA	74547-2001	1.0m (3.28')	1, 4	
	74547-2003	3.0m (9.84')		
	74547-2006	6.0m (19.68')		
	74547-2061	1.0m (3.28')	7	
	74547-2063	3.0m (9.84')		
	74547-2066	6.0m (19.68')		
CX4	74547-7010	1.0m (3.28')	2.7	
	74547-7050	5.0m (16.4')		
	74547-7100	10.0m (32.80')		
	74547-7150	15.0m (49.20')		

Note: Additional lengths on sales drawing shown on website.

0.80mm (.031")/ 0.80mm (.031") Pitch iPass™ External Mini Multi-Lane to Internal Mini Multi-Lane Cable Assembly

74547

External 26-Circuit SAS to Internal 36-Circuit SAS (SFF-8088 to SFF-8087)



Length	Order No.	Lead-free
0.5m (1.64')	74547-3301	Yes
1.0m (3.28')	74547-3302	

Features and Benefits

- Interface adapter cable provides ability to mate between various SAS and SATA interconnects
- iPass cable plug offers streamlined narrow latch pull design allowing for more dense cable management
- Reduced plug width provides the ability to support a higher number of ports in the same space as the SFF-8470 solution

Reference Information

Packaging: Bag
Mates With: External—75586
Internal—75783, 75784
Use With: External—74548
Designed In: Millimeters

Electrical

Voltage: 30V AC
Current: 0.5A

Mechanical

Latch-to-Cage Retention Force: 88.96N (20 lbf)

External SFF-8088
Mating Force: 68.95N (15.5 lbf)
Unmating Force: 62.28N (14.0 lbf)
Durability: 250 cycles

Internal SFF-8087
Latch-to-Cage Retention Force: 4.45N (1.00 lbf) per circuit
Mating Force: 1.25N (.28 lbf) per circuit
Unmating Force: 25N (0.6 lbf) per circuit
Durability: 25 cycles

Physical

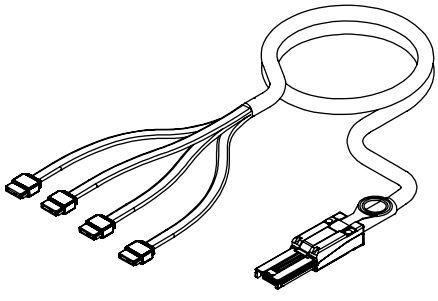
External SFF-8088
Housing: Zinc Die Cast
Housing Plating: Nickel
PCB Contact: Gold
Operating Temperature: -20 to +85˚C

Internal SFF-8087
Housing: Black glass-filled high-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy

0.80mm (.031")/ 1.27mm (.050") Pitch iPass™ External Mini Multi-Lane to Internal 1X SATA Cable Assembly

74557

26-Circuit SAS External to (4) 1X SATA (SF-8088 to 1X SATA)



Length	Order No.	Pinout	Pinout Orientation	Lead-free
0.5m (1.64')	74557-0001	Straight	Transmit P0 to P1-P4	Yes
1.0m (3.28')	74557-0002			
0.5m (1.64')	74557-0003	Straight—pinout 2		
1.0m (3.28')	74557-0004			

Length	Order No.	Pinout	Pinout Orientation	Lead-free
0.5m (1.64')	74557-1001	Crossover	Transmit P0 to P1-P4	Yes
1.0m (3.28')	74557-1002			
0.5m (1.64')	74557-1003	Crossover—pinout 2		
1.0m (3.28')	74557-1004			

Features and Benefits

- Interface adapter cable provides ability to mate between various SAS and SATA interconnects
- iPass cable plug offers streamlined narrow latch pull design allowing for more dense cable management
- Reduced plug width provides the ability to support a higher number of ports in the same space as the SFF-8470 solution

Reference Information

Packaging: Bag
Mates With: Internal—47080, 67490, 67800
External—75586
Use With: External—74548
Designed In: Millimeters

Electrical

Voltage: 30V AC
Current: 0.5A

Mechanical

External SFF-8088
Latch-to-Cage Retention Force: 88.96N (20 lbf)
Mating Force: 68.95N (15.5 lbf)
Unmating Force: 62.28N (14 lbf)
Durability: 250 cycles

Internal SATA
Mating Force: 45N per circuit (10.12 lbf)
Unmating Force: 10N per circuit (2.25 lbf)
Durability: 500 cycles

Physical

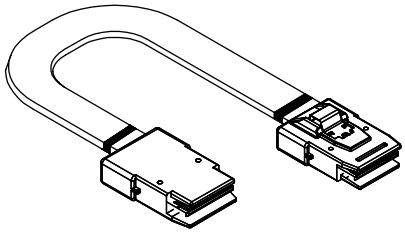
External SFF-8088
Housing: Zinc diecast
Housing Plating: Nickel
PCB Contact: Gold

Internal SATA
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" min. Gold over Nickel

0.80mm (.031") Pitch iPass™ Internal Mini Multi-Lane Cable Assembly

79576
Double-ended
36-Circuit SAS (SFF-8087)

74573
Right Angle (SFF-8087)



Features and Benefits
- All internal iPass assemblies are capable of supporting SAS/SATA generation I and II bandwidths which allows the customer to use the same connector/cable solution for next generation systems
- Positive and passive latching ensures that the plug remains mated to receptacle
- Reduced mechanical size offers up to 4 times the port density of the current x4 solution

Reference Information
Packaging: Bag
Mates With: 75783 and 75784
Designed In: Millimeters

Electrical
Voltage: 30V AC
Current: 1.0A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 240V
Insulation Resistance: 40 Megohms min.

Mechanical
Latch-to-Cage Retention Force: 44.48N (10.00 lbf)
Mating Force: 55.60N (12.5 lbf)
Unmating Force: 48.93N (11.00 lbf)
Durability: 25 cycles

Physical
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" min. Gold over Nickel

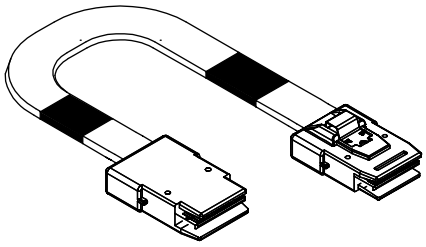
Length	Order No.	Sidebands	Application	Lead-free
0.5m (1.64')	79576-2102	Yes	Controller to Backplane	Yes
1.0m (3.28')	79576-2104			
0.5m (1.64')	79576-2112		Controller to Controller	
1.0m (3.28')	79576-2114			
0.5m (1.64')	74573-2102		Controller to Backplane	
	74573-2112		Controller to Controller	

Note: Additional lengths shown on website.

www.molex.com/hpc/

0.80mm (.031") Pitch iPass™ Internal Cable Assembly

74596
Double Ended
50 Circuit



Features and Benefits
- All internal iPass assemblies are capable of supporting SAS/SATA generation I and II bandwidths, which allows the customer to use the same connector/cable solution for next generation systems
- Positive and passive latching ensures that the plug remains mated to the receptacle
- Interface adapter cables provide the ability to mate between the various standard SAS and SATA interconnects
- One 50 circuit cable utilizes less board space than two 26 circuit cables

Reference Information
Packaging: Bag
Mates With: 75783 and 75784
Designed In: Millimeters

Electrical
Voltage: 30V AC
Current: 1.0A

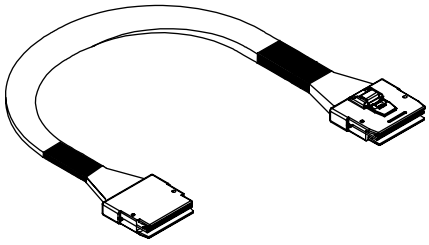
Mechanical
Latch to Cage Retention: 30N (6.74 lbf) min.
Mating Force: 82.5N (18.55 lbf)
Unmating Force: 32.5N (7.31 lbf)
Durability: 50 cycles

Physical
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" Gold over Nickel

Order No.	Length	Application	Sidebands	Lead-free
74596-5000	0.152m (0.50')	Controller to Backplane	No	Yes
74596-5001	0.300m (0.98')			
74596-5002	0.500m (3.28')			
74596-5003	0.600m (1.97')			
74596-5004	1.00m (3.28')			

0.80mm (.031") Pitch iPass™ Internal Cable Assembly

74586
Double Ended 68 Circuit



Features and Benefits
- All internal iPass assemblies are capable of supporting SAS/SATA generation I and II bandwidths, which allows the customer to use the same connector/cable solution for next generation systems
- Positive and passive latching ensures that the plug remains mated to the receptacle
- Interface adapter cables provide the ability to mate between the various standard SAS and SATA interconnects
- One 68 circuit cable utilizes less board space than two 36 circuit cables

Reference Information
Packaging: Bag
Mates With: 75783 and 75784
Designed In: Millimeters

Electrical
Voltage: 30V AC
Current: 1.0A

Mechanical
Latch to Cage Retention: 30N (6.74 lbf) min.
Mating Force: 105N (23.61 lbf)
Unmating Force: 37 (7.31 lbf)
Durability: 50 cycles

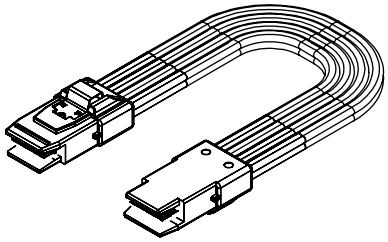
Physical
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" Gold over Nickel

Order No.	Length	Application	Sidebands	Lead-free
74586-2100	0.152m (0.50')	Controller to Backplane	Yes	Yes
74586-2101	0.300m (0.98')			
74586-2102	0.500m (3.28')			
74586-2103	0.600m (1.97')			
74586-2104	1.00m (3.28')			
74586-2110	0.152m (0.50')	Controller to Controller	Yes	
74586-2111	0.300m (0.98')			
74586-2112	0.500m (3.28')			
74586-2113	0.600m (1.97')			
74586-2114	1.00m (3.28')			
74586-2120	0.152m (0.50')	N/A	No	
74586-2121	0.300m (0.98')			
74586-2122	0.500m (3.28')			
74586-2123	0.600m (1.97')			
74586-2124	1.00m (3.28')			

www.molex.com/product/iPass.html

0.80mm (.031") Pitch iPass™ Internal Mini SAS Cable Assembly

79575
Double-ended 26-Circuit SAS (SFF-8087)



Features and Benefits
- All internal iPass assemblies are capable of supporting SAS/SATA generation I and II bandwidths, which allows the customer to use the same connector/cable solution for next generation systems
- Positive and passive latching ensures that the plug remains mated to the receptacle
- Reduced mechanical size offers up to 4 times the port density of the current x4 solution

Reference Information
Packaging: Bag
Mates With: 75783 and 75784
Designed In: Millimeters

Electrical
Voltage: 30V AC
Current: 1.0A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 240V
Insulation Resistance: 40 Megohms min.

Mechanical
Latch-to-Cage Retention Force: 44.48N (10.00 lbf)
Mating Force: 55.60N (12.5 lbf)
Unmating Force: 48.93N (11.00 lbf)
Durability: 25 cycles

Physical
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" min. Gold over Nickel

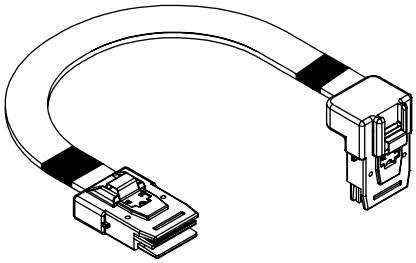
Circuits	Length	Order No.	Lead-free
26	0.152m (0.49')	79575-2000	Yes
	0.3m (0.98')	79575-2001	
	0.5m (1.64')	79575-2002	
	0.6m (1.96')	79575-2003	
	1.0m (3.28')	79575-2004	

Note: Additional lengths on sales drawing shown on website.

0.80mm (.031") Pitch iPass™ Internal Mini SAS Cable Assembly

74573

90 Degree, Right Angle
36 Circuit



Features and Benefits
- All internal iPass assemblies are capable of supporting SAS/SATA generation I and II bandwidths, which allows the customer to use the same connector/cable solution for next generation systems
- Positive and passive latching ensures that the plug remains mated to the receptacle
- Interface adapter cables provide the ability to mate between the various standard SAS and SATA interconnects

Reference Information
Packaging: Bag
Mates With: 75783 and 75784
Designed In: Millimeters

Electrical
Voltage: 30V AC
Current: 1.0A

Mechanical
Latch to Cage Retention Force: 30N (6.74 lbf)
Mating Force: 55.60N (12.5 lbf)
Unmating Force: 48.93N (11.00 lbf)
Durability: 50 cycles

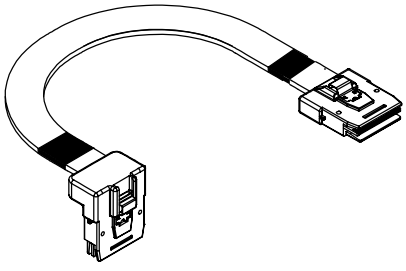
Physical
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" min. Gold over Nickel

Order No.	Length	Application	Sidebands	Lead-free
74573-2100	0.152m (0.50')	Controller to Backplane	Yes	Yes
74573-2101	0.300m (0.98')			
74573-2102	0.500m (1.64')			
74573-2103	0.600m (1.97')			
74573-2104	1.00m (3.28')			
74573-2110	0.152m (0.50')	Controller to Controller	Yes	
74573-2111	0.300m (0.98')			
74573-2112	0.500m (1.64')			
74573-2113	0.600m (1.97')			
74573-2114	1.00m (3.28')			
74573-2120	0.152m (0.50')	None	No	
74573-2121	0.300m (0.98')			
74573-2122	0.500m (1.64')			
74573-2123	0.600m (1.97')			
74573-2124	1.00m (3.28')			

0.80mm (.031") Pitch iPass™ Internal Cable Assembly

111018

90 Degree, Right Angle
50 Circuit



Features and Benefits
- All internal iPass assemblies are capable of supporting SAS/SATA generation I and II bandwidths, which allows the customer to use the same connector/cable solution for next generation systems
- Positive and passive latching ensures that the plug remains mated to the receptacle
- Interface adapter cables provide the ability to mate between the various standard SAS and SATA interconnects

Reference Information
Packaging: Bag
Mates With: 75783 and 75784
Designed In: Millimeters

Electrical
Voltage: 30V AC
Current: 1.0A

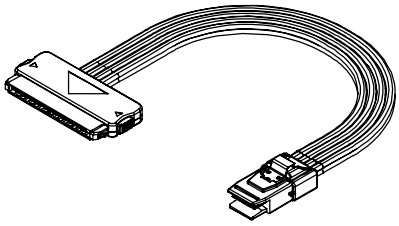
Mechanical
Latch to Cage Retention Force: 30N (6.75 lbf) min.
Mating Force: 82.5N (18.55 lbf)
Unmating Force: 32.5N (7.31 lbf)
Durability: 50 cycles

Physical
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" Gold over Nickel

Order No.	Length	Application	Sidebands	Lead-free
111018-0000	0.152m (0.50')	Controller to Backplane	No	Yes
111018-0001	0.300m (0.98')			
111018-0002	0.500m (3.28')			
111018-0003	0.600m (1.97')			
111018-0004	1.00m (3.28')			

0.80mm (.031")/ 1.27mm (.050") Pitch iPass™ Internal 26 Circuit Mini SAS to Internal Multi-Lane Cable Assembly

79575
SFF-8484



Features and Benefits
- All internal iPass assemblies are capable of supporting SAS/SATA generation I and II bandwidths which allows use of the same connector/cable solution for next generation systems
- Positive and passive latching ensures that the plug remains mated to receptacle
- Interface adapter cables provide the ability to mate between the various standard SAS and SATA interconnects

Reference Information
Packaging: Bag
Mates With: Mini SAS—75783, 75784
SFF-8484—87968, 87862, 87959, 87861, 87969
Designed In: Millimeters

Electrical
Voltage: 30V AC
Current: 1.0A

Mechanical
26 Circuit
Latch to Cage Retention Force: 44.48N (10.00 lbf)
Mating Force: 55.60N (12.5 lbf)
Unmating Force: 48.93N (11.00 lbf)
Durability: 25 cycles

8484
Mating Force Internal: 45N (10.12 lbf) max.
Unmating Force Internal: 20N (4.5 lbf) min. with latch engaged
Durability: 50 cycles

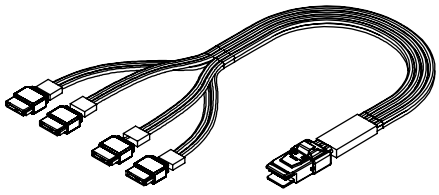
Physical
26 Circuit
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" min. Gold over Nickel

8484
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" min. Gold over Nickel and Copper Alloy

Order No.	Orientation	Length	Lead-Free
79575-5002	Vertical	0.5m (1.64')	Yes
79575-5004		1.0m (3.28')	

0.80mm (.031")/ 1.27mm (.050") Pitch iPass™ Internal Mini SAS to Serial ATA Cable Assembly

79575
26-Circuit to (4) 1X SATA



Features and Benefits
- All internal iPass assemblies are capable of supporting SAS/SATA generation I and II bandwidths, which allows the customer to use the same connector/cable solution for next generation systems
- Positive and passive latching ensures that the plug remains mated to the receptacle
- Interface adapter cables provide the ability to mate between the various standard SAS and SATA interconnects

Reference Information
Packaging: Bag and box
Mates With: SATA—47080, 67490, 67800
SAS—75783 and 75784
Designed In: Millimeters

Electrical
Voltage: 30V AC
Current: 1.0A

Mechanical
26 Circuit
Latch-to-Cage Retention Force: 44.48N (10.00 lbf)
Mating Force: 55.60N (12.5 lbf)
Unmating Force: 48.93N (11.00 lbf)
Durability: 25 cycles

SATA
Mating Force Internal: 45N per circuit (10.12 lbf)
Unmating Force Internal: 10N per circuit (2.25 lbf)
Durability: 500 cycles

Physical
26 Circuit
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" min. Gold over Nickel

SATA
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" min. Gold over Nickel

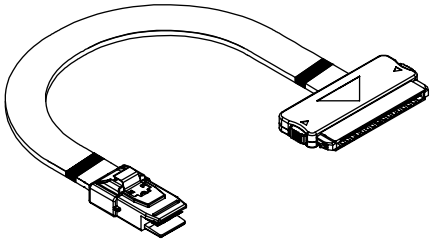
Length	Order No.	Application	Lead-free
0.5m (1.64')	79575-3002	Backplane to Controller	Yes
1.0m (3.28')	79575-3004		

Note: Additional lengths on sales drawing shown on website.

0.80mm (.031")/ 1.27mm (.050") Pitch iPass™ Internal Mini Multi-Lane to Internal Multi-Lane Cable Assembly

79576
(SFF-8088 to SFF-8484)

74562
(SFF-8088 to Right Angle SFF-8484)



Features and Benefits
- All internal iPass assemblies are capable of supporting SAS/SATA generation I and II bandwidths which allows the customer to use the same connector/cable solution for next generation systems
- Positive and passive latching ensures that the plug remains mated to receptacle
- Interface adapter cables provide the ability to mate between the various standard SAS and SATA interconnects

Reference Information
Packaging: Bag and box
Mates With: SFF-8088—75783, 75784
SFF-8484—87861, 87862, 87959, 87968 and 87969
Designed In: Millimeters

Electrical
Voltage: 30V AC
Current: 1.0A

Mechanical
SFF-8088
Latch-to-Cage Retention Force: 44.48N (10.00 lbf)
Mating Force: 55.60N (12.5 lbf)
Unmating Force: 48.93N (11.00 lbf)
Durability: 25 cycles

SFF-8484
Mating Force Internal: 45N (10.12 lbf) max.
Unmating Force Internal: 20N (4.5 lbf) min. with latch engaged
Durability: 50 cycles

Physical
SFF-8088
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" min. Gold over Nickel

SFF-8484
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" min. Gold over Nickel and Copper Alloy

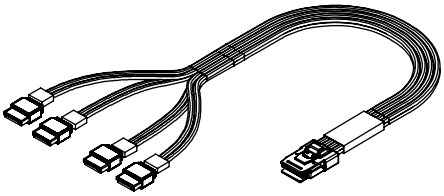
Length	Order No.	Orientation	Application—Sidebands	Lead-free
0.5m (1.64')	79576-5002	Vertical	iPass on Backplane	Yes
1.0m (3.28')	79576-5004			
0.5m (1.64')	79576-9002		iPass on Controller	
1.0m (3.28')	79576-9004			
0.5m (1.64')	79576-5022		No Side Bands	
1.0m (3.28')	79576-5024			
0.5m (1.64')	74562-5002	Right Angle	iPass on Backplane	
1.0m (3.28')	74562-5004			
0.5m (1.64')	74562-5102		No Side Bands	
1.0m (3.28')	74562-5104			

Note: Additional lengths available on sales drawing shown on website.

0.80mm (.031")/ 1.27mm (.050") Pitch iPass™ Internal Mini Multi-Lane to Serial ATA Cable Assembly

79576/79536

36-Circuit to (4) 1X SATA (SFF-8087 to 1X SATA)



Features and Benefits

- All internal iPass assemblies are capable of supporting SAS/SATA generation I and II bandwidths, which allows the customer to use the same connector/cable solution for next generation systems
- Positive and passive latching ensures that the plug remains mated to the receptacle
- Interface adapter cables provide the ability to mate between the various standard SAS and SATA interconnects

Reference Information

Packaging: Bag and box
Mates With: 1X SATA—47080, 67490, 67800
36-Circuit SATA—75783 and 75784
Designed In: Millimeters

Electrical

Voltage: 30V AC
Current: 1.0A

Mechanical

SFF-8087
Latch-to-Cage Retention Force: 44.48N (10.00 lbf)
Mating Force: 55.60N (12.5 lbf)
Unmating Force: 48.93N (11.00 lbf)
Durability: 25 cycles

SATA
Mating Force Internal: 45N per circuit (10.12 lbf)
Unmating Force Internal: 10N per circuit (2.25 lbf)
Durability: 500 cycles

Physical

SFF-8087
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" min. Gold over Nickel

SATA
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" min. Gold over Nickel

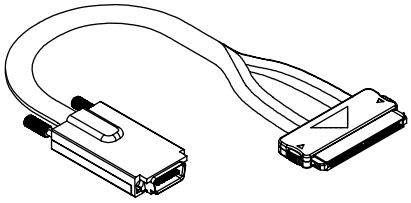
Length	Order No.	Application	Sidebands	Lead-free
0.5m (1.64')	79576-3002	iPass on Backplane	No	Yes
1.0m (3.28')	79576-3007			
0.5m (1.64')	79576-3003	iPass on Controller		
1.0m (3.28')	79576-3005			
0.5m (1.64')	79536-3013	iPass on Backplane	Yes	
1.0m (3.28')	79536-3015			
0.5m (1.64')	79536-3003	iPass on Controller		
1.0m (3.28')	79536-3005			
0.5m (1.64')	79536-3023			
1.0m (3.28')	79536-3025			

Note: Additional lengths available on sales drawing shown on website.

0.50mm (.020")/ 1.27mm (.050") Pitch LaneLink™ to iPass™ Cable Assembly External Multi-Lane 4X to Mini SAS 4i, 4X Jackscrew Cable Assembly

74527

4X SAS LaneLink to SAS iPass Cable (SFF-8470 to SFF-8484)



Features and Benefits

- Interface adapter cable provides the ability to mate between various SAS and SATA interconnects with existing systems that use SFF-8470
- Jackscrew options complies with SFF-8470, which meets SFF committee standard specifications
- Internal plug offers positive and passive latching to ensure plug remains latched to receptacle

Reference Information

Packaging: Bag and box
Mates With: External—91659
Internal—87861, 87862, 87959, 87968, 87969
Designed In: Millimeters

Electrical

Voltage: 0.5A
Current: 30V AC

Mechanical

External SFF-8470
Mating Force External: 55.5N (12.48 lbf)
Unmating Force Internal: 49.0N (11.02 lbf)
Durability: 250 cycles

Internal SFF-8484
Latch to Cage Retention Force: 44.48N (10.0 lbf)
Mating Force Internal: 55.60N (12.50 lbf)
Unmating Force Internal: 48.93N (11.0 lbf)
Durability: 25 cycles

Physical

External SFF-8470
Housing: Zinc diecast
Contact: Gold flash
Housing Plating: Nickel

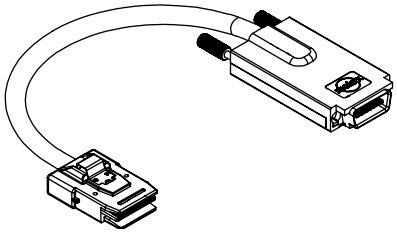
Internal SFF-8484
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" min. Gold over Nickel

Length	Order No.	Description	Pinout Orientation	Lead-free
0.5m (1.64')	74527-4001	Straight (P1 to P1) pinout	Transmit to Transmit	Yes
1.0m (3.28')	74527-4002			
0.5m (1.64')	74527-4101	Crossover (P1 to P4) pinout	Transmit to Receive	
1.0m (3.28')	74527-4102			

0.50mm (.020")/ 0.80mm (.031") Pitch LaneLink™ to iPass™ External Multi-Lane to Internal Mini-Multi Lane 4X Jackscrew Cable Assembly

74527

4X SAS LaneLink to 36-Circuit SAS iPass Cable (SFF-8470 to SFF-8087)



Features and Benefits

- Interface adapter cable provides the ability to mate between various SAS and SATA interconnects with existing systems that use SFF-8470
- Jackscrew options complies with SFF-8470, which meets SFF committee standard specifications
- Internal plug offers positive and passive latching to ensure plug remains latched to receptacle

Reference Information

Packaging: Bag
Mates With: External—91659
Internal—75783, 75784
Use With: 74735 and 74739
Designed In: Millimeters

Electrical

Voltage: 0.5A
Current: 30V AC

Mechanical

External SFF-8470
Mating Force: 55.5N (12.48 lbf)
Unmating Force: 49.0N (11.0 lbf)
Durability: 250 cycles

Internal SFF-8087
Mating Force: 55.60N (12.50 lbf)
Unmating Force: 48.93N (11.0 lbf)
Latch to Cage Retention Force: 44.48N (10 lbf)
Durability: 25 cycles

Physical

External SFF-8470
Housing: Zinc diecast
Contact: Gold flash
Housing Plating: Nickel

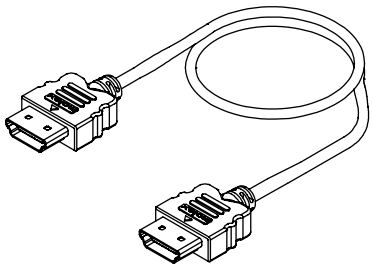
Internal SFF-8087
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" min. Gold over Nickel

Length	Order No.	Lead-free
0.5m (1.64')	74527-6021	Yes
1.0m (3.28')	74527-6022	

High Definition Multimedia Interface* (HDMI) Shielded I/O Cable Assembly/Adapter

88768
HDMI to HDMI
HDMI to DVI

88764
HDMI Adapters



Features and Benefits
- Compact, user-friendly design meets consumer equipment needs
- 5 Gbps bandwidth supports uncompressed audio/video in a single cable
- HDMI-DVI cables DVI backward compatible
- Fully shielded ESD protection

Reference Information
Product Specification: PS-88768-001 and PS-88768-002
Packaging: Bag or custom-specified
Mates With: HDMI and DVI header
Designed In: Millimeters

Electrical
Voltage: 40V
Current: 0.5A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 300 AC (rms)
Insulation Resistance: 100 Megohms min.

Mechanical
Insertion Force: 44.1N max.
Withdraw Force: 39.2N max.
9.2N min.
Durability: 10000 cycle

Physical
Contact: Copper Alloy
Plating: Contact Area—0.75µm (30µ") min. Gold
Underplating: Nickel
Wire Gauge: 28, 30 AWG

Cable Assembly Lengths (mm)	Wire Gauge (AWG)	Order No.	Description	Lead-free
1000	28	88768-3500	HDMI to DVI	Yes
2000		88768-3510		
3000		88768-3520		
5000		88768-3530		
1000	30	88768-3600		
2000		88768-3610		
3000		88768-3620		
1000	28	88768-9800	HDMI to HDMI	
2000		88768-9810		
3000		88768-9820		
5000		88768-9830		
1000	30	88768-9900		
2000		88768-9910		
3000		88768-9920		

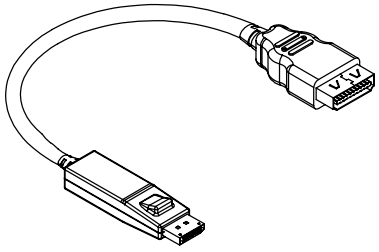
Order No.	Adapters Description	Lead-free
88764-2000	HDMI Male to DVI Female	Yes
88767-0600	HDMI Female to DVI Male	
88764-5900	HDMI Female to P&D (M1) Male	

*High Definition Multimedia Interface and HDMI are trademarks of HDMI Licensing, LLC.

www.molex.com/product/io/hdmi.html

0.50mm (.012") Pitch DisplayPort* Cable Adapter

74766



Features and Benefits
- Meets VESA DisplayPort 1.1a, HDMI† 1.0, DVI-D 1.0 and VGA industry standards
- Meets IEC-61000-4-2 ESD
- Sleek mechanical design allows multiple cable adapters to be used close together
- Five inches of cable provide exceptional flexibility to use the adapter in many different applications

Reference Information
Packaging: Bag
Mates With: 47623, 47272, 105020, 105019 and 105080
Designed In: Millimeters

Electrical
Voltage: 3.3V
Current: 300mA max.

Mechanical
Insertion Force: 44.1N (9.91 lbf) max.
Unmating Force with latches: 49N (11.02 lbf)
Durability: 100 cycles

Physical
Housing: Black Thermoplastic UL 94V-0
Contact Plating: Gold
Wire Gauge: 32 Awg

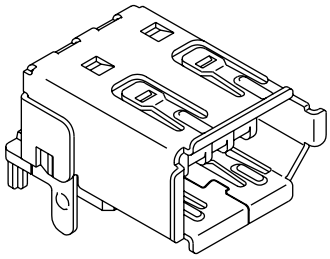
Order No.	Legacy Side	Lead-free
74766-0005	HDMI	Yes
74766-0006	Single link DVI	
74766-8005	HDMI	
74766-8006	Single link DVI	

*DisplayPort is a trademark of Video Electronics Standards Association (VESA)
†HDMI is a trademark of HDMI Licensing, LLC

www.molex.com/product/displayport.html

2.00mm (.079") Pitch IEEE 1394-1995 Shielded I/O PCB Socket

53462
Right Angle, Flat, SMT With Kinked Metal Pegs



Circuits	Order No.	Lead-free
6	53462-0629	Yes

Note: Molex's IEEE 1394 connector and cable products are licensed for use exclusively with the 1394 BUS technology. Use of this product contrary to this restriction will constitute a violation of certain license restrictions and may pose a serious safety hazard.

Features and Benefits
- Size 6 circuits
- Provides the interface for speeds up to 400 Mbps
- Full metal shielding for ESD protection
- High-temperature plastic housing for SMT processing
- Rugged Gold-plated leaf contacts withstand up to 1500 cycles
- Polarized shell design and friction lock grounding fingers ensure plug retention

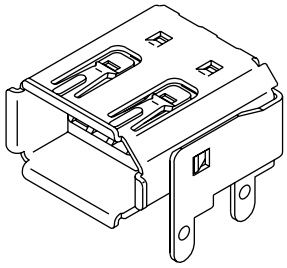
Reference Information
Packaging: Tray
Mates With: 59233-700X, 88763-25XX and 88763-26XX
Designed In: Millimeters

Electrical
Voltage: 40V
Current: 1.5A
Contact Resistance: Terminal—30 milliohms max.(6 pin)
50 milliohms max. (4 pin)
Shell—50 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1 Gigaohm min. (4 pin)
100 Megohms min. (6 pin)

Physical
Housing: Black glass-filled 4/6 nylon, UL 94V-0 or equivalent
Shell: Phosphor Bronze, Tin over Nickel plating
Contact: Brass
Plating: Contact area—Gold over Nickel
Solder Tail Area—Tin over Nickel

2.00mm (.079") Pitch IEEE 1394-1995 Shielded I/O PCB Socket

53984
Right Angle Flat



Circuits	Order No.	Lead-free
6	53984-0671	Yes

Note: Molex's IEEE 1394 connector and cable products are licensed for use exclusively with the 1394 BUS technology. Use of this product contrary to this restriction will constitute a violation of certain license restrictions and may pose a serious safety hazard.

Features and Benefits
- Size 6 circuits
- Provides the interface for speeds up to 400 Mbps
- Four metal PCB retention pegs for additional hold-down
- High-temperature plastic housing for SMT processing
- Rugged Gold-plated leaf contacts withstand up to 1500 cycles
- Polarized shell design and friction lock grounding fingers ensure plug retention

Reference Information
Packaging: Tray
Mates With: 59233-70XX, 88763-25XX and 88763-26XX
Designed In: Millimeters

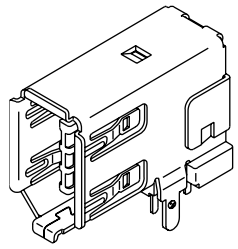
Electrical
Voltage: 40V
Current: 1.5A
Contact Resistance: Terminal—30 milliohms max. (6 pin)
50 milliohms max. (4 pin)
Shell—50 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1 Gigaohm (4 pin)
100 Megohms (6 pin)

Physical
Housing: Black glass-filled 4/6 nylon, UL 94V-0 or equivalent
Shell: Phosphor Bronze, Tin over Nickel plating
Contact: Brass
Plating: Contact area—Gold over Nickel
Solder Tail Area—Tin over Nickel

2.00mm (.079") Pitch IEEE 1394-1995 Shielded I/O PCB Socket

53460

Right Angle, Upright With Kinked Metal Pegs



Circuits	Order No.	Lead-free
6	53460-0629	Yes

Note: Molex's IEEE 1394 connector and cable products are licensed for use exclusively with the 1394 BUS technology. Use of this product contrary to this restriction will constitute a violation of certain license restrictions and may pose a serious safety hazard.

Features and Benefits

- Size 6 circuits
- Provides the interface for speeds up to 400 Mbps
- Full metal shielding for ESD protection
- High-temperature plastic housing for SMT processing
- Rugged Gold-plated leaf contacts withstand up to 1500 cycles
- Polarized shell design and friction lock grounding fingers ensure plug retention

Reference Information

Packaging: Tray
Mates With: 59233-700X, 88763-25XX and 88763-26XX
Designed In: Millimeters

Electrical

Voltage: 40V
Current: 1.5A
Contact Resistance: Terminal—30 milliohms max. (6 pin)
50 milliohms max. (4 pin)
Shell—50 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1 Gigaohm (4 pin)
100 Megohms (6 pin)

Physical

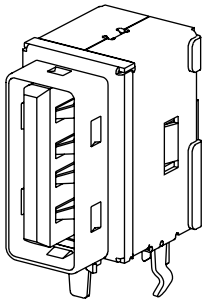
Housing: Black glass-filled 4/6 nylon, UL 94V-0 or equivalent
Shell: Phosphor Bronze, Tin over Nickel plating
Contact: Brass
Plating: Contact area—Gold over Nickel
Solder Tail Area—Tin over Nickel

www.molex.com/product/1394.html

Universal Serial Bus (USB) Shielded I/O Type 'A' Receptacle

89485

Single Upright Right Angle



Circuits	Order No.	Plating	Lead-free
4	89485-8000	Gold Flash	Yes
	89485-8001	30µ" Gold	

Features and Benefits

Small footprint saves PCB real estate

- Metal shell with back-shield offers all-round EMI/RFI shielding
- Staked-housing provides excellent solder tail alignment facilitating PCB mounting
- Dimples at inlet serve as locking feature and plug retention
- Panel grounding pins for ESD protection
- Kinked boardlocks provide strong board retention

Reference Information

Product Specification: PS-89485
Packaging: Tray
Mates With: USB 'A' Plug
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 750V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 35N max.
Withdrawal Force: 10N min.
Durability: 1500 cycles

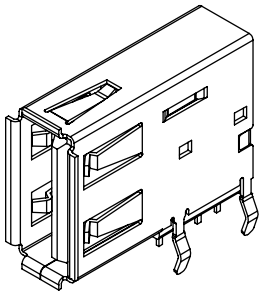
Physical

Housing: Black high-temperature, glass fiber-filled nylon, UL 94V-0
Contact: Phosphor Bronze
Metal Shell: Steel Alloy
Plating: Gold Flash or 30µ" Gold

Universal Serial Bus (USB) I/O Receptacle

48204

Type A, Surface Mount Right Angle, Shielded



Order No.	Lead-free
48204-0001	Yes

Features and Benefits

- Small footprint saves PCB real estate
- Metal shell with back shield offers all-around EMI/RFI shielding
- Spring-beam shell contacts offer plug retention force
- Four beveled metal pins provide strong board retention

Reference Information

Product Specification: PS-48204-001
Packaging: Tray
Designed in: Millimeters

Electrical

Voltage: 30V
Current: 1.5A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 35.00N
Unmating Force: 10.00N
Durability: 1500 cycles

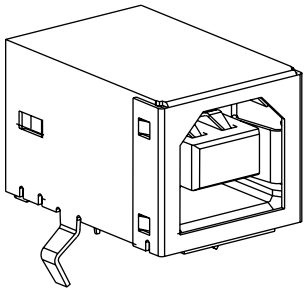
Physical

Housing: Glass-filled high-temperature thermoplastic, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—30µ" Gold
Solder Tail Area—Tin
Underplating: Nickel

Universal Serial Bus (USB) Shielded I/O Type 'B' Receptacle

67068

Single Right Angle, Kinked Version



Circuits	Order No.	Housing Color	Plating	Lead-free
4	67068-8000	Black	Gold Flash	Yes
	67068-8001		30µ" Gold	
	67068-9000	White	Gold Flash	
	67068-9001		30µ" Gold	

Features and Benefits

- Metal shell with back-shield provides all round EMI/RFI shielding
- Staked-housing provides excellent solder tail alignment facilitating PCB mounting
- Multiple internal grounding fingers
- Stand-offs for anti-solder bridging
- Kinked boardlocks provide strong board retention

Reference Information

Product Specification: PS-67998-0000
UL File No.: E29179
CSA File No.: LR19980A
Packaging: Tray
Mates With: USB 'B' Plug
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 750V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 35N max.
Withdrawal Force: 10N min.
Durability: 1500 cycles min.

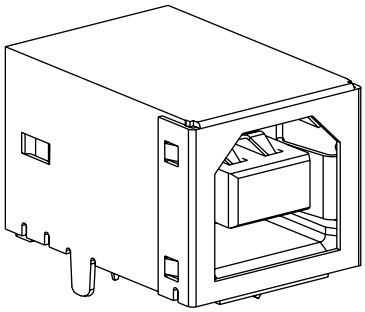
Physical

Housing: Black or white glass fiber-filled polyester, UL 94V-0
Contact: Phosphor Bronze
Metal Shell: Copper Alloy
Plating: Gold Flash or 30µ" Gold

Universal Serial Bus (USB) Shielded I/O Type 'B' Receptacle

67068

Single Right Angle with Straight Tabs



Features and Benefits

- Straight tabs suited for pick-and-place feeder
- Metal shell provides full EMI/RFI shielding
- Staked housing provides excellent solder-tail alignment facilitating PCB mounting
- Housing stand-offs for anti-solder bridging
- Housing available in black or white

Reference Information

Product Specification: PS-67998-0000
Packaging: Tray or tube
Mates With: USB 'B' Plug
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 750V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 35N max.
Unmating Force: 10N min.
Durability: 1500 cycles

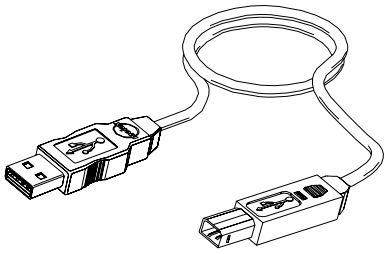
Physical

Housing: Black or white glass fiber-filled polyester, UL 94V-0
Contact: Phosphor Bronze
Metal Shell: Copper Alloy
Plating: Gold Flash or 30µ" Gold

Circuits	Order No.		Packaging	Plating	Lead-free
	Black	White			
4	67068-8010	67068-9010	Tray	Gold Flash	Yes
	67068-8011	67068-9011		30µ" Gold	
	67068-8110	67068-9110	Tube	Gold Flash	
	67068-8111	67068-9111		30µ" Gold	

Universal Serial Bus (USB) Shielded I/O Cable Assembly

88732 'A-to-B' Full-Rated
'A-to-B' High Rated
88728 'A-to-Pigtail' Full-Rated
88738 'A-to-Pigtail' Sub-Channel



Features and Benefits
- Connector-to-connector polarization ensures proper mating
- Friction grip on over-molded body provides easy mating/unmating
- 5 standard cable lengths available for design flexibility
- Full shield provided EMI/RFI protection
- Other cable lengths and custom designs available

Reference Information
Product Specification: PS-87525
Packaging: Bag or custom-specified
Mates With: USB 'A' receptacle and USB 'B' receptacle
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 1.0A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 750V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Mating Force: 35N max.
Withdrawal Force: 10N min.
Durability: 1500 cycles min.

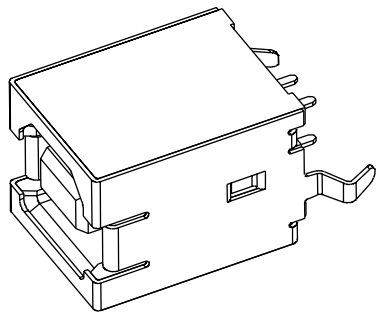
Physical
Contact: Copper Alloy
Plating: Contact Area—0.75µm (30µ") min. Gold
Underplating: Nickel

Order No.	Description	Cable Assembly Lengths (mm)	Lead-free
88738-8000	USB Type A to Pigtail Sub-Channel	810 White	Yes
88738-8001		810 Beige	
88738-8100		1310 White	
88738-8101		1310 Beige	
88738-8200		2080 White	
88738-8201		2080 Beige	
88738-8300		3330 White	
88738-8301		3330 Beige	
88738-8400		5000 White	
88738-8401		5000 Beige	
88728-3200	USB Type A to Pigtail Full-Rated	810 White	
88728-3202		810 Black	
88728-3300		1310 White	
88728-3302		1310 Black	
88728-3400		2080 White	
88728-3402		2080 Black	
88728-3500		3330 White	
88728-3502		3330 Black	
88728-3600		5000 White	
88728-3602		5000 Black	

Order No.	Description	Cable Assembly Lengths (mm)	Lead-free
88732-8000	USB Type A to Type B Full-Rated USB1.1	1000 White	Yes
88732-8002		1000 Black	
88732-8100		1800 White	
88732-8102		1800 Black	
88732-9000		820 White	
88732-9002		820 Black	
88732-9100		1320 White	
88732-9102		1320 Black	
88732-9200		2090 White	
88732-9202		2090 Black	
88732-9300		3340 White	
88732-9302		3340 Black	
88732-9400		5000 White	
88732-9402		5000 Black	
88732-9020	USB Type A to Type B Full-Rated USB2.0	820 White	
88732-9120		1320 Black	
88732-9220		2090 White	

Universal Serial Bus (USB) Shielded I/O Type 'B' Receptacle

67171
Vertical



Features and Benefit
- Dual kinked boardlocks provide secure PCB retention
- Housing stand-off for anti-solder bridging
- Housing available in black or white

Reference Information
Product Specification: PS-67998-0000
Packaging: Tray
Mates With: USB 'B' Plug
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 1.0A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 750V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Mating Force: 35N max.
Unmating Force: 10N min.
Durability: 1500 cycles

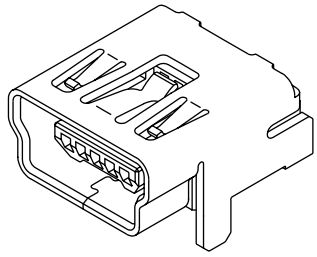
Physical
Housing: Black or white glass fiber-filled polyester, UL 94V-0
Contact: Phosphor Bronze
Metal Shell: Copper Alloy
Plating: Gold Flash or 30µ" Gold

Circuits	Order No.		Plating	Lead-free
	Black	White		
4	67171-2000	67171-3000	Gold Flash	Yes
	67171-2001	67171-3001	30µ" Gold	

www.molex.com/product/io/usb.html

mini-B™ USB On-the-Go (OTG) Shielded I/O Receptacle

54819



Features and Benefits
- Approximately 1/8 the size of standard USB-B connectors
- Fully compliant with current USB 2.0 specifications
- Compact and lightweight design meets various portable and mobile equipment needs
- Operates at speeds up to 480 Mbps
- Rugged durability up to 5,000 cycles

Reference Information
Product Specification: PS-54819-010
Packaging: Tray
Mates With: 59204-9405, 59205-3301
Designed In: Millimeters

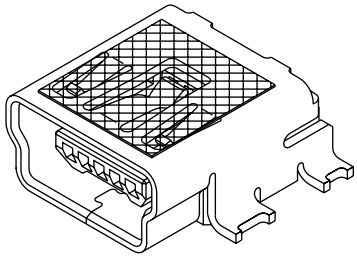
Electrical
Voltage: 30V
Current: 1.0A
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 100V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical
Housing: Black glass-filled Polyphthal Amide, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.75µm (30µ") min. Gold
Solder Tail Area—Tin
Underplating—Nickel
Shield Case: Copper Alloy, Tin over Nickel plating

Circuits	Order No.	Lead-free
5	54819-0519	Yes

mini-B™ USB On-the-Go (OTG) Shielded I/O Receptacle

54819
With Cover Tape SMT



Features and Benefits
- Approximately 1/8 the size of standard USB-B connectors
- Fully compliant with current USB 2.0 specifications
- Compact and lightweight design meets various portable and mobile equipment needs
- Operates at speeds up to 480 Mbps
- Rugged durability up to 5,000 cycles

Reference Information
Product Specification: PS-54819-010
Packaging: Embossed tape
Mates With: 59204-9405, 59205-3301
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 1.0A
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 100V AC/1 min.
Insulation Resistance: 100 Megohms min.

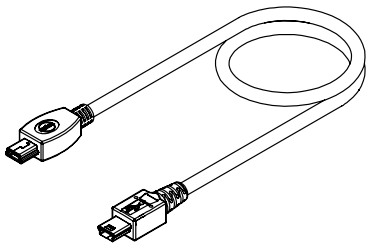
Physical
Housing: Black glass-filled Polyphthal Amide, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.75µm (30µ") min. Gold
Solder Tail Area—Tin
Underplating—Nickel
Shield Case: Copper Alloy, Tin over Nickel plating
Cover Tape: Polyimide

Circuits	Order No.	Carrier Tape Width	Lead-free
5	54819-0572	24.00 (.945)	Yes

Universal Serial Bus (USB) On-The-Go (OTG) Shielded I/O Cable Assembly

88732
Standard USB A to Mini B

88753
Mini A to Mini B



Features and Benefits
- Approximately 1/8 the size of standard USB-B connectors
- Connector-to-connector polarization ensures proper mating
- Full shield provides EMI/RFI protection
- Meets USB 2.0 specifications
- Compact and lightweight design meets various portable and mobile equipment needs
- Rugged durability up to 5,000 cycles
- Other cable lengths and custom designs available

Reference Information
Product Specification: PS-87525
Packaging: Bag or custom-specified
Mates With: USB A, Mini AB and Mini B receptacle
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 1.0A
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 100V AC/min.
Insulation Resistance: 100 Megohms min.

Mechanical
Mating Force: 35N max.
Unmating Force: 10N min.
Durability: USB A—1500 cycles
Mini A and Mini B—5000 cycles

Physical
Contact: Copper Alloy
Plating: Contact Area—0.75µm (30µ") min. Gold
Underplating: Nickel
Wire Gauge: 28 AWG

Cable Assembly Lengths (mm)	Order No.	Description	Lead-free
800 White	88732-8510	USB A to Mini B, USB 1.1	Yes
800 Black	88732-8512		
1000 White	88732-8610		
1000 Black	88732-8612		
1500 White	88732-8710		
1500 Black	88732-8712		
1800 White	88732-8810		
1800 Black	88732-8812		
2000 White	88732-8910		
2000 Black	88732-8912		
800 White	88732-8500	USB A to Mini B, USB 2.0	
800 Black	88732-8502		
1000 White	88732-8600		
1000 Black	88732-8602		
1500 White	88732-8700		
1500 Black	88732-8702		
1800 White	88732-8800		
1800 Black	88732-8802		
2000 White	88732-8900		
2000 Black	88732-8902		

Cable Assembly Lengths (mm)	Order No.	Description	Lead-free
800 White	88753-8110	USB Mini A to Mini B, USB 1.1	Yes
1000 White	88753-8210		
1200 White	88753-8310		
1500 White	88753-8410		
1800 White	88753-8510		
2000 White	88753-8610		
800 White	88753-8100	USB Mini A to Mini B, USB 2.0	
800 Black	88753-8102		
1000 White	88753-8200		
1000 Black	88753-8202		
1200 White	88753-8300		
1200 Black	88753-8302		
1500 White	88753-8400		
1500 Black	88753-8402		
1800 White	88753-8500		
1800 Black	88753-8502		
2000 White	88753-8600		
2000 Black	88753-8602		

InfiniBand* I/O Interconnect Solutions

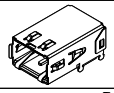
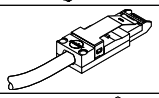
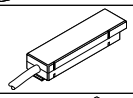
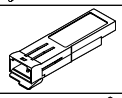
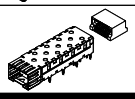
The InfiniBand architecture is a new I/O technology created by key computer manufacturers to address the neeed for greater scalability, reliability, availability and performance in and around servers. This channel-based, switched fabric technology connects servers pointo-to-point with remote storage and networking devices and other servers.

The channel-based architecture allows the I/O ports to operate independently from the system memory, rather than through a shared bus configuration. Connections are made through host-channel adapters (HCAs) and target-channel adapters (TCAs), which can be on PCI cards, PCI express cards or InfiniBand carriers.

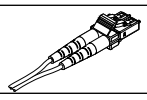
The InfiniBand specification is designed to support bandwithds of 2.5 Gbps in each single-directional link (5.0 Gbps bi-directionally). Scaling in bandwidth and frequency is done in links of 1-bit, 4-bit and 12-bit bi-directional connections (1X, 4X and 12X).
The specification supports both copper and fiber implementations.

The InfiniBand specification provides a reference design for new form factor carriers designed to plug directly to a backplane in rack-style applications. The I/O panel on the carrier accommodates both copper and optical connections in range of high-density options.

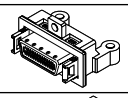
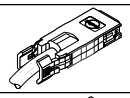
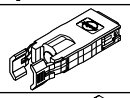
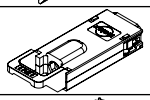
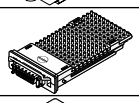
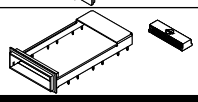
Copper—2 Differential Pair

	Data Link	Product	Description	Series
1X		HSSDC2 Board-Mount Receptacle Single Row HSSDC2 Board-Mount Receptacle Dual Row	Right Angle, InfiniBand Key	74703 74780
		HSSDC2 Cable Assembly Single Row, Loop Back HSSDC2 Cable Assembly Dual Row, Loop Back	Various Lengths, Equalized or Unequalized	73939 74514
		Cage-to-Cage SFP Patch Cables	Various Lengths, 0.3m to 10.0m	73929
		HSSDC2 Pluggable SFP Modules, Loop Back, Dust Plug	Active and Passive Transceivers	74720
		SFP Cages SFP Host Connectors SFP Cage and Connector Kit	Press-Fit, Solder Post and PCI Compliant 20-Position Right Angle SMT Press-Fit Cage with 20-Position Right Angle SMT Host Connector	73927 74441 75082

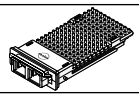
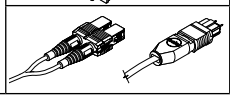
Optical

	Data Link	Product	Description	Series
1X		Dual LC Optical Cables	Cable Assemblies, Connectors and Adapters	86025

Copper—8 Differential Pair

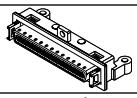
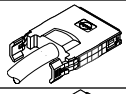
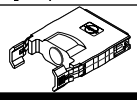
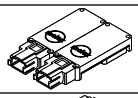
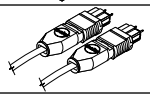
	Data Link	Product	Description	Series
4X		LaneLink™ Board-Mount Receptacle	Screw Mount or Solder Post with Latches	91804
		Cable Assemblies: 4X-to-4X, 4X-to-(4)1X, (3)4X-to-12X	Equalized or Unequalized with Latches	92903
		Squeeze Release Plug Kit	Plug Connector, Back Shells Equalized or Unequalized with Latches	91534
		Lanyard Plug Kit	Plug Connector, Back Shells Equalized or Unequalized with Lanyard Pull-Velcase System	91942
		Pluggable Module	XPAK Form Factor LaneLink I/O CX4	74732
		Guide Frame for Pluggable Modules Host Connector	Press-Fit, Solder Post and PCI Compliant 70-Position Right Angle SMT	74732 74441

Optical

	Data Link	Product	Description	Series
4X		Pluggable Module	XPAK Form Factor Dual SC I/O LX4	86993
		Dual SC Optical Cables MPO Optical Cables	Single or Multimode Single 12 Fiber Ribbon Cable Assemblies	86290 86282

* InfiniBand is a trademark of the InfiniBand™ Trade Association

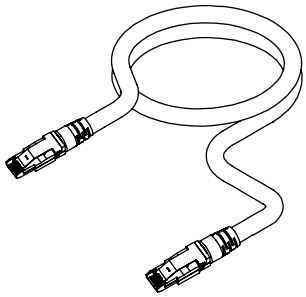
InfiniBand* I/O
Interconnect Solutions

Copper—24 Differential Pair				
	Data Link	**Product**	**Description**	**Series**
12X		LaneLink™ Board-Mount Receptacle	Screw Mount or Solder Post with Latches	91525
		Cable Assemblies: 12X-to-12X, 12X-to-(12)1X, 12X-to-(3)4X	Equalized or Unequalized with Latches	92903
		Plug Kit	Plug Connector, Back Shells Equalized or Unequalized with Latches	91534
Optical				
	Data Link	**Product**	**Description**	**Series**
12X		ParaLink-P™ Pluggable Module	12 Channel Parallel Optical Link, TX and RX	86991
		MPO Optical Cables	Dual 12 Fiber Ribbon Cable Assemblies	86282

* InfiniBand is a trademark of the InfiniBand™ Trade Association

1.27mm (.050") Pitch HSSDC2 Copper Cable Assembly

73939



Features and Benefits

- Compliant with HSSDC2 MSA
- Data rates up to 2.5 Gbps
- Keyed for Fibre Channel and InfiniBand* receptacles to prevent mismating
- Positive latching to prevent accidental disengagement
- 360˚ shielding

Reference Information

Packaging: Bag
Mates With: 74703
Use With: 74720
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.5A

Mechanical

Mating Force: 6.7 lbf max.
Unmating Force: 3.37 lbf max.
Durability: 250 cycles

Physical

Housing: Zinc diecast
Housing plating: Nickel

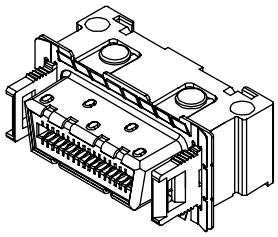
Length	Order No.		Lead-free
	HSSDC2—Fibre Channel	HSSDC2—InfiniBand	
0.5m (1.64')	73939-1001	73939-2001	Yes
1.0m (3.28')	73939-1002	73939-2002	
2.0m (6.56')	73939-1003	73939-2003	
3.0m (9.84')	73939-1004	73939-2004	
5.0m (16.4')	73939-1005	73939-2005	
10m (32.80')	73939-1006	73939-2006	

* InfiniBand is a trademark of the InfiniBand Trade Association.

0.50mm (.020") Pitch LaneLink™ Receptacle

91804

4x Latch



Features and Benefits

- Landing area allows for automatic placement
- Optional panel mount enables screw-attach of diecast frame to panel, providing additional strain relief
- Solder post options available (2 or 4 posts)
- Latching mechanism complies with InfiniBand* and Ethernet
- Rear EMI shield available
- Locking panel available

Reference Information

Product Specification: PS-91525-001
Packaging: Tray or tape and reel
Mates With: 91635 and 92903
Use With: 91789 EMI shield and 91532 locking panel
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.5A
Contact Resistance: 80 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Insertion Force: 5.00N (1.12 lb)
Mating Force: 55.50N (12.48 lb) max.
Unmating Force: 7.00N (1.57 lb) min.
Normal Force: 0.50N (0.11 lb)
Durability: 250 cycles

Physical

Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Palladium Nickel
Solder Tail Area—Tin
Underplating: Nickel

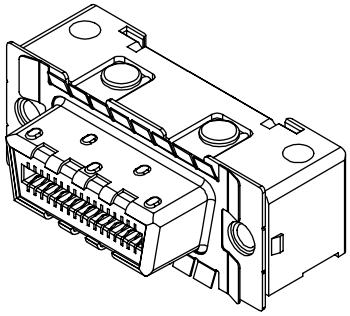
Order No.	Rear Mounts	Solder Posts	Panel Mount	Packaging	Lead-free
91804-0411	No	No	No	Tray	Yes
91804-0413	Yes		Yes		
91804-0415					
91804-0417	No				
91804-0451		2 (Note 1)	No		
91804-0453	Yes	4 (Note 1)			
91804-0455		4 (Note 1)	Yes		
91804-0457	No	2 (Note 1)			
91804-0461		2 (Note 2)	No		
91804-0463	Yes	4 (Note 2)			
91804-0465		4 (Note 2)	Yes		
91804-0467	No	2 (Note 2)			
91804-0491		2 (Note 3)	No		
91804-0493	Yes	4 (Note 3)			
91804-0495		4 (Note 3)	Yes		
91804-0497	No	2 (Note 3)			
91804-8411		No	No	Tape and Reel	
91804-8413	Yes		Yes		
91804-8415					
91804-8417	No				
91804-8451		2 (Note 1)	No		
91804-8453	Yes	4 (Note 1)			
91804-8455		4 (Note 1)	Yes		
91804-8457	No	2 (Note 1)			
91804-8461		2 (Note 2)	No		
91804-8463	Yes	4 (Note 2)			
91804-8465		4 (Note 2)	Yes		
91804-8467	No	2 (Note 2)			
91804-8491		2 (Note 3)	No		
91804-8493	Yes	4 (Note 3)			
91804-8495		4 (Note 3)	Yes		
91804-8497	No	2 (Note 3)			

*InfiniBand is a trademark of the InfiniBand™ Trade Association.
Note 1: Solder post length 2.30mm (.092")
Note 2: Solder post length 3.30mm (.132")
Note 3: Solder post length 4.30mm (.172")

0.50mm (.020") Pitch LaneLink™ Receptacle

91803

4x Jackscrew



Features and Benefits

- Landing area allows for automatic placement
- Optional panel mount enables screw-attach of diecast frame to panel, providing additional strain relief
- Solder post options available (2 or 4 posts)
- Jackscrew mechanism complies with SAS, SATA and Fibre Channel
- Rear EMI shield available

Reference Information

Product Specification: PS-91525-001
Packaging: Tray or tape and reel
Mates With: 91659 and 92903
Use With: 91789 EMI cover and 91619 Standoff
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.5A
Contact Resistance: 80 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Insertion Force: 5.00N (1.12 lb)
Mating Force: 55.50N (12.48 lb) max
Unmating Force: 7.00N (1.57 lb) min
Normal Force: 0.50N (0.11 lb)
Durability: 250 cycles

Physical

Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Palladium Nickel
Solder Tail Area—Tin
Underplating—Nickel

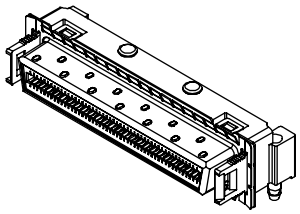
Order No.	Rear Mounts	Solder Posts	Packaging	Lead-free
91803-0411	No	No	Tray	Yes
91803-0413	Yes			
91803-0415	No	2 (Note 1)		
91803-0417	Yes	4 (Note 1)		
91803-0465	No	2 (Note 2)		
91803-0467	Yes	4 (Note 2)		
91803-0495	No	2 (Note 3)		
91803-0497	Yes	4 (Note 3)		
91803-8411	No	No	Tape and Reel	
91803-8413	Yes			
91803-8415	No	2 (Note 1)		
91803-8417	Yes	4 (Note 1)		
91803-8465	No	2 (Note 2)		
91803-8467	Yes	4 (Note 2)		
91803-8495	No	2 (Note 3)		
91803-8497	Yes	4 (Note 3)		

Note 1: Solder post length 2.30mm (.092")
Note 2: Solder post length 3.30mm (.132")
Note 3: Solder post length 4.30mm (.172")

0.50mm (.020") Pitch LaneLink™ Receptacle

91525

12x Latch



Features and Benefits

- Diecast frame with latches provides strain relief of cable to receptacle and isolates cable loads from SMT tails
- Optional panel mount enables screw-attach of diecast frame to panel, providing additional strain relief
- Solder post options available (2 or 4 posts)
- Latching mechanism complies with InfiniBand* and Ethernet
- Latching panel available

Reference Information

Product Specification: PS-91525-001
Packaging: Tray or Tape and reel
Mates With: 92903 and 91635
Use With: 91532 locking panel
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.5A
Contact Resistance: 80 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 73N (16.41 lb) max.
Unmating Force: 10.5N (2.36 lb) min.
Normal Force: 0.50N (0.11 lb)
Durability: 250 cycles

Physical

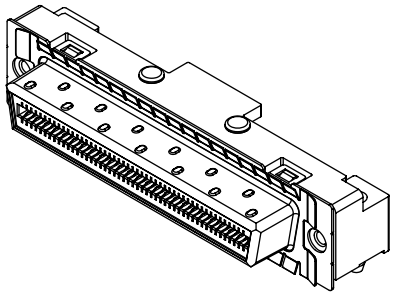
Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Palladium Nickel
Solder Tail Area—Tin
Underplating: Nickel

Order No.	Rear Mounts	Panel Mount	Solder Posts	Packaging	Lead-free
91525-1211	No	No	No	Tray	Yes
91525-1213	Yes	No			
91525-1215	Yes	Yes			
91525-1217	No	Yes			
91525-1251	No	No	2 (Note 1)		
91525-1253	Yes	No	4 (Note 1)		
91525-1255	Yes	Yes	4 (Note 1)		
91525-1257	No	Yes	2 (Note 1)		
91525-1261	No	No	2 (Note 2)		
91525-1263	Yes	No	4 (Note 2)		
91525-1265	Yes	Yes	4 (Note 2)		
91525-1267	No	Yes	2 (Note 2)		
91525-1291	No	No	2 (Note 3)		
91525-1293	Yes	No	4 (Note 3)		
91525-1295	Yes	Yes	4 (Note 3)		
91525-1297	No	Yes	2 (Note 3)		
91525-8211	No	No	No	Tape and Reel	
91525-8213	Yes	No			
91525-8215	Yes	Yes			
91525-8217	No	Yes			
91525-8251	No	No	2 (Note 1)		
91525-8253	Yes	No	4 (Note 1)		
91525-8255	Yes	Yes	4 (Note 1)		
91525-8257	No	Yes	2 (Note 1)		
91525-8261	No	No	2 (Note 2)		
91525-8263	Yes	No	4 (Note 2)		
91525-8265	Yes	Yes	4 (Note 2)		
91525-8267	No	Yes	2 (Note 2)		
91525-8291	No	No	2 (Note 3)		
91525-8293	Yes	No	4 (Note 3)		
91525-8295	Yes	Yes	4 (Note 3)		
91525-8297	No	Yes	2 (Note 3)		

Note 1: Solder post length 2.30mm (.092")
Note 2: Solder post length 3.30mm (.132")
Note 3: Solder post length 4.30mm (.172")
* InfiniBand is a trademark of the InfiniBand(SM) Trade Association.

0.50mm (.020") Pitch LaneLink™ Receptacle

91629
12x Jackscrew



Features and Benefits
- Diecast frame with latches provides strain relief of cable to receptacle and isolates cable loads from SMT tails
- Solder post options available (2 or 4 posts)
- Jackscrew mechanism complies with SAS, SATA and Fibre Channel

Reference Information
Product Specification: PS-91525-001
Packaging: Tray or tape and reel
Mates With: 92903 and 91659
Use With: 91619 Standoff
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 0.5A
Contact Resistance: 80 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Mating Force: 73N (16.41 lb) max.
Unmating Force: 10.5N (2.36 lb) min.
Normal Force: 0.50N (0.11 lb)
Durability: 250 cycles

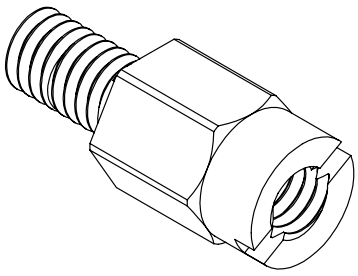
Physical
Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Palladium Nickel
Solder Tail Area—Tin
Underplating: Nickel

Order No.	Rear Mounts	Solder Posts	Packaging	Lead-free
91629-1211	No	No	Tray	Yes
91629-1213	Yes			
91629-1215	No	2 (Note 1)		
91629-1217	Yes	4 (Note 1)		
91629-1265	No	2 (Note 2)		
91629-1267	Yes	4 (Note 2)		
91629-1295	No	2 (Note 3)		
91629-1297	Yes	4 (Note 3)		
91629-1211	No	No	Tape and Reel	
91629-1213	Yes			
91629-1215	No	2 (Note 1)		
91629-1217	Yes	4 (Note 1)		
91629-1265	No	2 (Note 2)		
91629-1267	Yes	4 (Note 2)		
91629-1295	No	2 (Note 3)		
91629-1297	Yes	4 (Note 3)		

Note 1: Solder post length 2.30mm (.092")
Note 2: Solder post length 3.30mm (.132")
Note 3: Solder post length 4.30mm (.172")

LaneLink™ Standoff

91619
M2-by-0.4mm Internal Thread



Features and Benefits
- Hex and Flathead compatible
- NYLOK™ screw retention to help secure to connector

Reference Information
Mates With: 92903 and 91659
Use With: 91629 and 91803
Packaging: Bag
Designed In: Millimeters

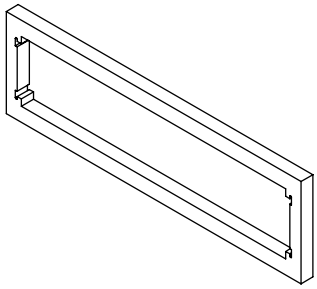
Mechanical
Recommended Torque: 0.3Nm max

Physical
Contact: Copper Alloy
Plating: Nickel

Order No.	Lead-free
91619-0001	Yes

LaneLink™ Latch Connector

91532
Locking Panel



Features and Benefits
- Locking panel is used to compress the gasket between the connector and the chassis of the application
- Improves the EMI/EMC performance

Reference Information
Packaging: Bag
Use With: 91525 and 91804
Designed In: Millimeters

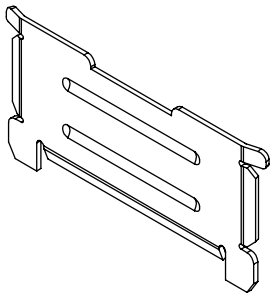
Mechanical
Lock to Mating Part: Self-clinching

Physical
Housing: Stainless Steel

Lanes	Order No.	Panel Mount	Lead-free
4	91532-0005	Yes	Yes
	91532-0007	No	
12	91532-0001	Yes	
	91532-0003	No	

LaneLink™ EMI Cover (Rear)

91789
For 4X Receptacles



Features and Benefits
- Improves EMI/EMC performance
- Inserted after reflow to facilitate solder joint inspection
- Positive locking feature

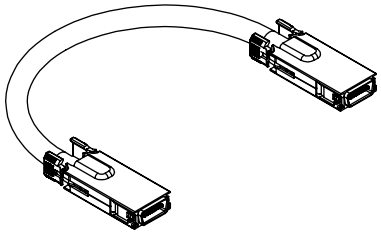
Reference Information
Use with: 91803 and 91804
Packaging: Bag
Designed In: Millimeters

Physical
Material: Stainless steel

Order No.	Lead-free
91789-0001	Yes

0.50mm (.020") Pitch LaneLink™ Cable Assembly for DDR IB

74595/111000
4x/12x Dual Data Rate (DDR) IB



Features and Benefits
- New paddle card design provides improved signal integrity and overall lower cost
- Redesigned back shell reduces EMI emissions
- Data rates of up to 5 Gbps doubles standard InfiniBand* rates
- Multiple latching options provide greater flexibility in system design

Reference Information
Packaging: Bag
Mates With: 4x—91803, 91804
12x—91525
Designed In: Millimeters

Electrical
Voltage: 30V AC
Current: 0.5A

Mechanical
Mating Force: 4x—55.50N (12.47 lbf)
12x—73.0N (16.41 lbf)
Unmating Force: 4x—49.0N (11.01 lbf)
12x—59.0N (13.26 lbf)
Durability: 250 cycles

Physical
Housing: Zinc die cast
Contact: Gold
Housing Plating: Nickel

Order No.	Length	Cable	Latch Style	Lead-free
74595-1005	0.5m (1.64')	4x	Squeeze	Yes
74595-1010	1.0m (3.28')			
74595-1030	3.0m (9.84')			
74595-1050	5.0m (16.40')			
74595-1100	10.0m (32.80')			
74595-5005	0.5m (1.64')	4x	Lanyard	
74595-5010	1.0m (3.28')			
74595-5030	3.0m (9.84')			
74595-5050	5.0m (16.40')			
74595-5100	10.0m (32.80')			
111000-1005	0.5m (1.64')	12x	Squeeze	
111000-1010	1.0m (3.28')			
111000-1030	3.0m (9.84')			
111000-1050	5.0m (16.40')			
111000-1100	10.0m (32.80')			

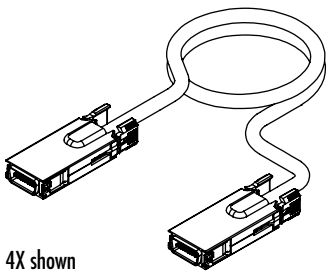
*InfiniBand is a trademark of the InfiniBand Trade Association.

www.molex.com/product/io/lanelink.html

0.50mm (.020") Pitch LaneLink™ InfiniBand* Cable Assembly

74506
4X Cable

74509
12X Cable



4X shown

Features and Benefits
- Squeeze-to-release latch provides user-friendly, positive latch/unlatch from the PCB connector
- Sturdy diecast backshell provides EMI protection
- Total InfiniBand solution with plug and connector (91525)
- Lengths up to 20m with equalization and pre-emphasis (10m standard InfiniBand)
- High performance production test rack provides 100% testing to InfiniBand industry standards

Reference Information
Packaging: Bag
Mates With: 91525
Use With: 74735 and 74739
Designed In: Millimeters

Electrical
Voltage: 30V AC
Current: 0.5A

Mechanical
Mating Force: 55.5N (12.48 lbf)
Unmating Force: 49.0N (11.02 lbf)
Durability: 250 cycles

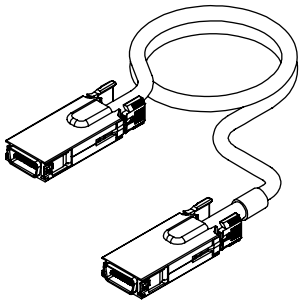
Physical
Housing: Zinc diecast
Contact: Gold flash
Housing Plating: Nickel

Length	Order No.	Cable	Equalized	Lead-free
0.5m (1.64')	74506-3001	4x	No	Yes
1.0m (3.28')	74506-3002			
8.0m (26.24')	74506-3105		Yes	
10.0m (32.80')	74506-3107			
0.5m (1.64')	74509-0001	12x	No	
1.0m (3.28')	74509-0002			

Note: Additional lengths available on sales drawing shown on website.
* InfiniBand is a trademark of the InfiniBand Trade Association.

0.50mm (.020") Pitch LaneLink™ 10 Gbase—CX4 Cable Assembly

74526
4X



Length	Order No.	Lead-free
1.0m (3.28')	74526-1002	Yes
15.0m (49.20')	74526-1007	

Note: Additional lengths available on sales drawing shown on website.

Features and Benefits
- Squeeze-to-release latch provides user-friendly, positive latch/unlatch from the PCB connector
- Sturdy diecast backshell provides EMI protection
- Total CX4 solution with plug and connector (91525)
- Standard 4x interface mates with XPAK (74739), and X2 (74735) copper transceivers
- Lengths greater than 15m can be achieved with the use of pre-emphasis on the board-side silicon
- High performance production test rack provides 100% eye pattern testing

Reference Information
Packaging: Bag
Mates With: 91525
Use With: 74735 and 74739
Designed In: Millimeters

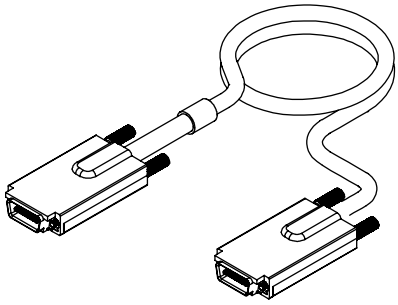
Electrical
Voltage: 30V AC
Current: 0.5A

Mechanical
Mating Force: 55.5N (12.49 lbf)
Unmating Force: 49.0N (11.02 lbf)
Durability: 250 cycles

Physical
Housing: Zinc diecast
Contact: Gold flash
Housing Plating: Nickel

0.50mm (.020") Pitch LaneLink™ SAS and SATA I/O External Multilane Cable Assembly

74527 – SAS
74530 – SATA I/O
4X LaneLink™ Cable



Length	Order No.	Product Family	Lead-free
0.5m (1.64')	74527-3001	SAS	Yes
1.0m (3.28')	74527-3002		
3.0m (9.84')	74527-3004		
5.0m (16.4')	74527-3006		
0.5m (1.64')	74530-0001	SATA	
1.0m (3.28')	74530-0002		
3.0m (9.84')	74530-0003		
5.0m (16.4')	74530-0005		

Note: Additional lengths available on sales drawing shown on website.

Features and Benefits
- Sturdy jackscrew hardware provides user with guaranteed mating to the PCB connector
- Diecast back shell provides EMI protection
- Total SAS and SATA I/O system solution with industry-standard compatible interface and connector (91659)
- Molex LaneLink cable is SFF8470 compliant
- Lengths greater than 15m can be achieved with the use of pre-emphasis on the board side silicon
- High performance production test rack provides 100% eye pattern testing to SAS/SATA standards

Reference Information
Packaging: Bag
Mates With: 91659
Use With: 74735 and 74739
Designed In: Millimeters

Electrical
Voltage: 30V AC
Current: 0.5A

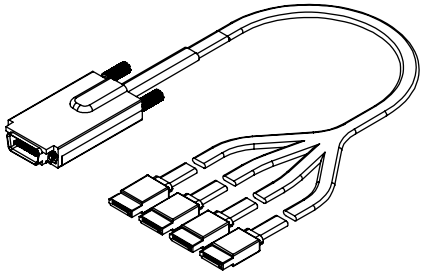
Mechanical
Mating Force: 55.5N (12.48 lbf)
Unmating Force: 49.0N (11.02 lbf)
Durability: 250 cycles

Physical
Housing: Zinc diecast
Contact: Gold flash
Housing Plating: Nickel

0.50mm (.020")/ 1.27mm (.050") Pitch LaneLink™ to SATA Cable Assembly External Multi-Lane 4X to 1X SATA Style 4X Jackscrew

74527

4X SAS LaneLink to (4)X1 SATA Cable (SFF-8470 to IX SATA)



Features and Benefits

- Interface adapter cable provides the ability to mate between various SAS and SATA interconnects with existing systems that use SFF-8470
- Jackscrew option complies with SFF-8470, which meets SFF committee standard specifications
- Latch version of internal plug provides secure mating to the receptacle via the receptacles metal latch and the latching windows of the plug

Reference Information

Packaging: Bag
Mates With: Internal—47080, 67490, 67800
External—91659
Designed In: Millimeters

Electrical

Voltage: 30V AC
Current: 0.5A

Mechanical

External SFF-8470
Mating Force: 55.5N (12.48 lbf)
Unmating Force: 49.0N (11.02 lbf)
Durability: 250 cycles

Internal SATA
Mating Force: 45N per circuit (10.12 lbf)
Unmating Force: 10N per circuit (2.25 lbf)
Durability: 500 cycles

Physical

External SFF-8470
Housing: Zinc diecast
Housing Plating: Nickel
PCB Contact: Gold

Internal SATA
Housing: Black glass-filled thermoplastic, UL 94V-0
Contact: 30µ" min. Gold over Nickel

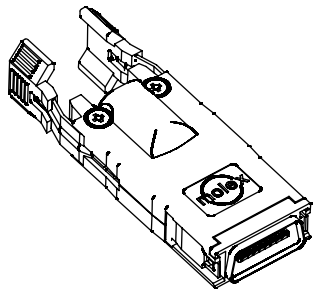
Length	Order No.	Description	Pinout Orientation	Lead-free
0.5m (1.64')	74527-0001	Straight (P1 to P1) pinout	Transmit to Transmit	Yes
1.0m (3.28')	74527-0002			
0.5m (1.64')	74527-1001	Crossover (P1 to P4) pinout	Transmit to Receive	
1.0m (3.28')	74527-1002			

www.molex.com/hpc/

0.50mm (.020") Pitch LaneLink™ Latch Plug kit

91635

4x and 12x



Features and Benefits

- Paddle card
- Latch levers provide user-friendly positive latch opening before unplugging cable connector from receptacle
- Audible click confirms mating to receptacle
- 100 ohms impedance
- 8 and 24 differential pair available

Reference Information

Product Specification: PS-91525-001
Packaging: Bag
Mates with: 91525 and 91804
Designed in: Millimeters

Electrical

Voltage: 30V
Current: 0.5A
Contact Resistance: 80 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 12x—73N (16.41 lb) max.
Unmating Force: 12x—10.5N (2.36 lb) min.
Normal Force: 0.50N (0.11 lb)
Durability: 250 cycles

Physical

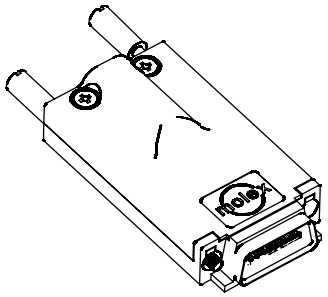
Contact: Phosphor Bronze
Plating: Contact Area—Gold over Palladium Nickel
Solder Tail Area—Tin
Underplating: Nickel

Lanes	Order No.	Wire Gauge	Lead-free
4	91635-1020	24 AWG	Yes
	91635-1021	26 AWG	
	91635-1022	28 AWG	
12	91635-1010	24 AWG	
	91635-1011	26 AWG	
	91635-1012	28 AWG	

0.50mm (.020") Pitch LaneLink™ Jack Screw Plug Kit

91659

4x and 12x



Features and Benefits

- Paddle card
- 100 ohms impedance
- 8 and 24 differential pair available

Reference Information

Product Specification: PS-91525-001
Packaging: Bag
Mates With: 91629 and 91803
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.5A
Contact Resistance: 80 milliohms max.
Dielectric Withstanding Voltage: 300V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 12x—73N (16.41 lb) max.
Unmating Force: 12x—10.5N (2.36 lb) min.
Normal Force: 0.50N (0.11 lb)
Durability: 250 cycles

Physical

Contact: Phosphor Bronze
Plating: Contact Area—Gold over Palladium Nickel
Solder Tail Area—Tin
Underplating: Nickel

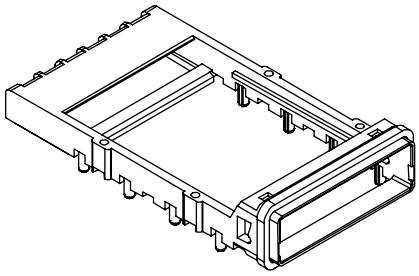
Lanes	Order No.	Wire Gauge	Lead-free
4	91659-1020	24 AWG	Yes
	91659-1021	26 AWG	
	91659-1022	28 AWG	
12	91659-1010	24 AWG	
	91659-1011	26 AWG	
	91659-1012	28 AWG	

www.molex.com/product/io/lanelink.html

XPAK 10 Gbps

74732

XPAK Guide Rail



Features and Benefits

- Cable transmits 10 Gbps data up to 15m over copper cable, enabling high speed data transmission
- Transceiver is able to be installed or removed without powering down
- Transceiver is compliant with XPAK MSA and designed to meet Gigabit Ethernet standards IEEE 802.3ak for CX4 and IEEE 802.3ae for XAUI
- Positive latching on the guide frame provides proper transceiver retention
- Threaded screw holes help increase retention to the PCB
- Guide rail compliance with MSA standard ensures proper mating with industry standard products

Reference Information

Packaging: Transceiver—Bag
Guide Frame—Tray
Transceiver Mates With: Host Connector (74441)
CX4 Cable Assembly (74526)
Designed In: Millimeters

Electrical

Transceiver
Voltage: 3.3V at 567mA, 1.5V at 1554mA
Current: 3.3V at 567mA, 1.5V at 1554mA

Mechanical

Transceiver
Mating Force: Min.—20N (4.5 lbf)
Max.—40N (9 lbf), 80N (18 lbf) max. allowed by MSA
Unmating Force: Min.—8N (1.79 lbf)
Max.—35N (7.9 lbf)
Durability: 100 cycles

Physical

Transceiver
Housing: Zinc
PCB contact: 0.76µm (30µ") Gold
PCB Thickness: 1.00mm (.393") ± 0.10mm (.004")

Guide Frame
Housing: Zinc Alloy
Plating: Nickel

Order No.	Description	Lead-free
74732-0220	Guide Rail	Yes

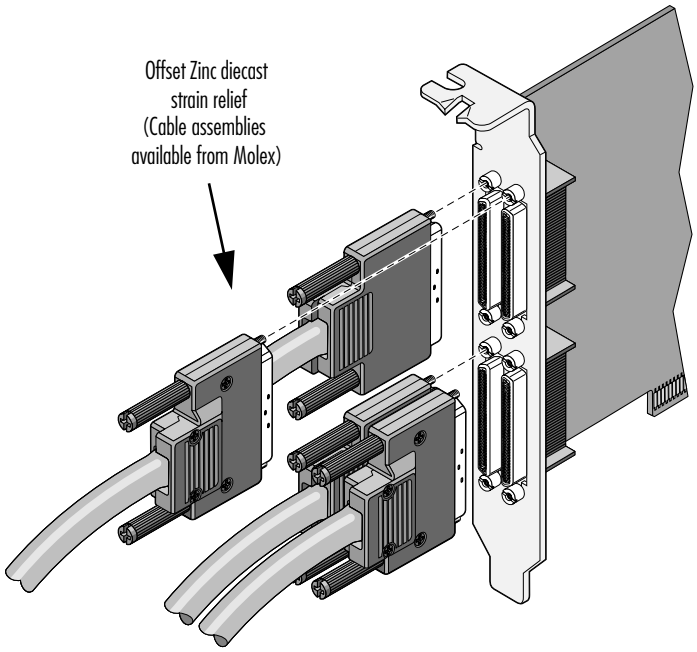
Ultra+™ VHDCI Connector System

Molex's 0.80mm (.031") Ultra+ VHDCI Connector System is a leader among the next generation of high density connectors. These 68-circuit connectors are designed for high performance memory transfer applications, supporting the latest SCSI-style interfaces. They offer greatly increased density compared to existing SCSI connectors styles. They are also well suited for other high density I/O needs.

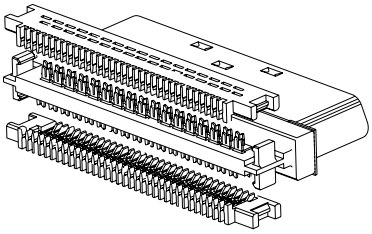
These connectors enable two side-by-side ports, allowing cards to support up to 30 drives. Stacked receptacles support up to 60 drives. They offer a tremendous advantage over the current SCSI-3 connectors that allow only one port on standard add-in cards.

Molex's Ultra+ VHDCI connectors feature easy-to-use cable assembly and superior leaf/ribbon style contacts. They meet the Small Form Factor and EIA Standards.

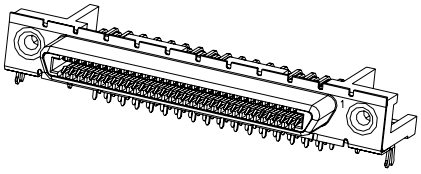
Molex also has standard high density SCSI-3 connectors for use with the new Ultra+ VHDCI cable formats.



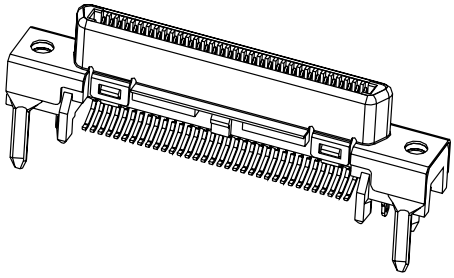
Typical 4-Port Add-In Card



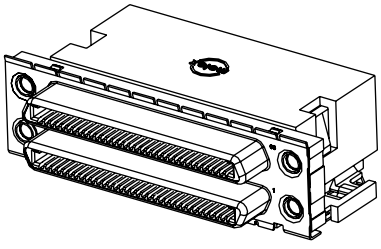
71425
IDT Plug



71430
Right Angle Receptacle



73776
Vertical SMT Receptacle



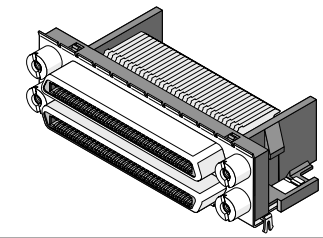
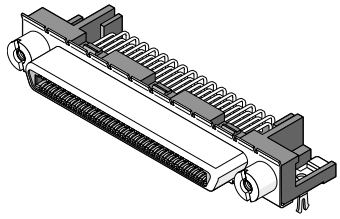
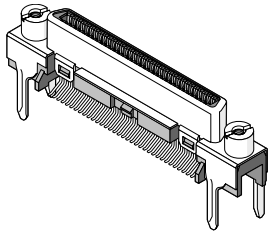
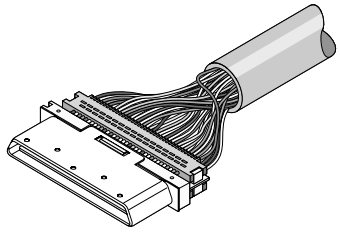
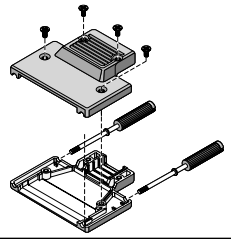
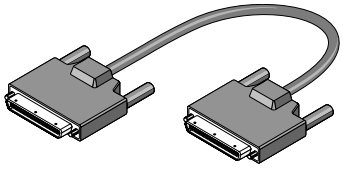
74337
Right Angle
Dual Stack

0.80mm (.031") Pitch Ultra+™ VHDCI Connector System

Molex's Ultra+ VHDCI connector system is a leader among the next generation of high-density I/O interconnects. These 68-circuit connectors are designed for high performance memeory transfer applications, supporting the latest SCSI-style interfaces. They offer greatly increased density compared to existing SCSI connector styles. They are also well suited for other high-density I/O needs.

These connectors enable 2 side-by-side ports on typical system add-in cards. The newest version of the VHDCI product line, the stacked receptacle, supports twice the density of the standard right-angle receptacle. Our multiple contact points for improved EMI/RFI performance.

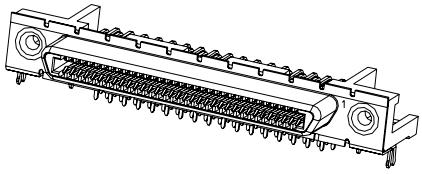
All of the VHDCI connectors feature superior leaf/ribbon style contacts and meet EIA and SFF industry standard specifications to ensure intermatability with conforming products.

Product	Description	Specifications	Series
	Stacked Right Angle Receptacle, Though Hole, With Enhanced Shield	2.08-3.44mm (.082-.135") PC Tail Lenghts, With or Without Screwlocks or Cover	74337
	Right Angle Receptacle, Though Hole, With or Without Enhanced Shield	2.08-2.71mm (.082-.107") PC Tail Lenghts, Available With or Without Screwlocks	71430
	Vertical Receptacle, SMT	Recommended PCB Thickness: 2.36mm (.093") PCB Ground Tabs Provide Mechanical Support, Available With or Without Screwlocks	73776
	IDT Plug Kit, With Lacing Covers	Uses 28 and 30 AWG Ultra+ Cable	71425
	Strain Relief Kit, Offset Zinc Diecast, Black or Nickel Finish	Complete Kit Includes: Upper Shell, Lower Shell, 2 Jackscrews, 2 Long Screws, and 2 Short Screws	73796
	Cable Assemblies, Various Lengths	VHDCI to VHDCI	79918
		VHDCI to SCSI	79913

0.80mm (.031") Pitch Ultra+™ VHDCI Receptacle

71430

Right Angle, Through Hole



Features and Benefits

- Enhanced shield with multiple contact points for improved EMI/RFI shielding
- Conforms to EIA/SFF specifications to ensure intermateability with conforming products
- Shield design can eliminate reflow solder ground connection
- One-piece shield offers maximum ground integrity Surface Mount Compatible

Reference Information

Product Specification: PSX-71425-9999
Packaging Type: Tube
UL File No.: E29179
CSA File No.: LR 19980-520
Mates With: 71425
Designed In: Millimeters

Electrical

Voltage: 30V
Current: .5A
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 250V
Insulation Resistance: 500 Megohms min.

Mechanical

Mating Force: .54N (55g)
Unmating Force: .15N (15g)
Durability: 500 cycles max.

Physical

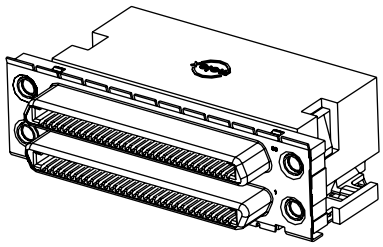
Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold flash over Palladium Nickel

Circuits	Order No.	PCB Thickness	PC Tail Length	Enhanced Ground Tabs	Screwlocks 71433-0002	Lead-free
68	71430-0005	1.60	2.08 (.082)	Yes	No	Yes
	71430-0007			No	Yes, loose	
	71430-0008			Yes	Yes, loose	
	71430-0011				No	
	71430-0101			No	No	
	71430-0004	2.36	2.71 (.107)	Yes	No	
	71430-0006			No	Yes, installed on part	
	71430-0009			Yes	Yes, installed on part	
	71430-0010				No	
	71430-0016			No	Yes, loose	
	71430-0019			Yes	Yes, loose	
	71430-0268			No	No	

0.80mm (.031") Pitch Ultra+™ VHDCI Wire-to-Board Receptacle

74337

Right Angle, Stacked, Through Hole



Features and Benefits

- Conforms to EIA/SFF specifications to ensure intermateability with conforming parts
- Gold flash over Palladium Nickel plating for a high durability/reliability interface
- Dual-stack, single-piece design provides space savings with one-step PCB processing
- Optional cover to protect from contact damage during handling
- One-piece enhanced face shield for improved EMI/RFI performance and simple ground termination process

Reference Information

Product Specification: PS-71425-9999
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980-5
Mates With: Ultra and VHDCI plug kit 71425
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.5A
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Mating Force: 0.49N (0.11 lb)
Unmating Force: 0.15N (0.03 lb)
Durability: 500 cycles

Physical

Housing: Black high-temperature thermoplastic, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold flash over Palladium Nickel
PCB Thickness: 1.57 and 2.36mm (.062 and .093")

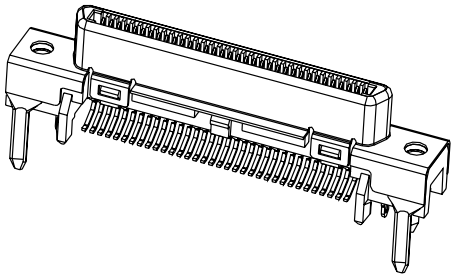
Circuits	Order No.		PCB Thickness	PC Tail Length	Cover	Screwlocks 71433-0002	Lead-free
	Snap Fit	Press Fit					
136	74337-0011	74337-0050	1.60	2.30 (.090)	Yes	No	Yes
	74337-0012	*74337-0051*		2.08 (.082)			
	74337-0015	74337-0060		2.30 (.090)	No		
	74337-0016	74337-0061		2.08 (.082)			
	74337-0037	74337-0066		2.30 (.090)	Yes	Yes, loose	
	74337-0038	74337-0053		2.08 (.082)			
	74337-0039	74337-0054		2.30 (.090)	No		
	74337-0040	74337-0063		2.08 (.082)			
	74337-0070	74337-0064	2.36	3.44 (.135)	Yes	No	
	74337-0071	74337-0052			No		
	74337-0072	74337-0062			Yes	Yes, loose	
	74337-0073	74337-0055			No		
	74337-1038	74337-0065	1.60	2.08 (.082)	Yes	Installed on Part	
		74337-1054					

* Without enhanced shield and ground tabs

0.80mm (.031") Pitch Ultra+™ VHDCI

73776

Vertical, SMT



Features and Benefits

- Compatible with IR/vapor phase reflow process
- Conforms to EIA/SFF specifications to ensure intermateability with conforming products
- Through hole solder lead provides mechanically robust interface
- One-piece shield offers maximum ground integrity

Reference Information

Product Specification: PSX-71425-9999
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980-520
Mates With: 71425
Designed In: Millimeters

Electrical

Voltage: 30V
Current: .50A max.
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 250V
Insulation Resistance: 500 Megohms min.

Mechanical

Mating Force: 54N (55g)
Unmating Force: 15N (15g)
Durability: 500 cycles max.

Physical

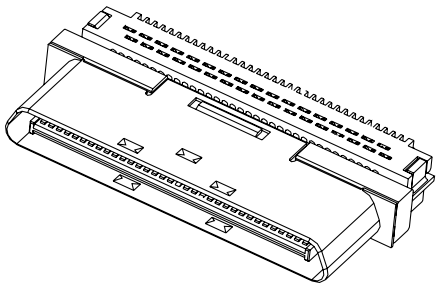
Housing: Black high-temperature thermoplastic, 94V-0
Contact: Phosphor Bronze
Plating: Gold flash over Palladium Nickel

Circuits	Order No.	Description	Lead-free
68	73776-0101	Without screwlock kit	Yes
	73776-0201	With screwlock kit 71433-0002 included	

0.80mm (.031") Pitch Ultra+™ VHDCI Plug Kit

71425

IDT



Features and Benefits

- Cable assemblies available from Molex
- 73796 backshell kit available
- Conforms to EIA/SFF specifications to ensure intermateability with conforming products
- Semi-automatic tooling available, which maximizes termination efficiency
- Insert molded design for rugged mating interface
- Narrow terminated profile that permits 2 wire termination process for all applications
- Works for both straight and offset cable applications
- Designed to terminate 30 gauge, 34 pair ultra style cables

Reference Information

Product Specification: PSX-71425-9999
Tooling Information: Raptor 2 or manual termination press
UL File No.: E29179
CSA File No.: LR 19980-520
Mates With: 71430, 73776 and 74337
Assembled with: 73796
Designed In: Millimeters

Electrical

Voltage: 30V
Current: .5A
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 250V
Insulation Resistance: 500 Megohms min.

Mechanical

Mating Force: .54N (55g)
Unmating Force: .15N (15g)
Durability: 500 min.

Physical

Housing: 94V-0, thermoplastic
Contact: Phosphor Bronze
Plating: Gold Flash over Palladium Nickel

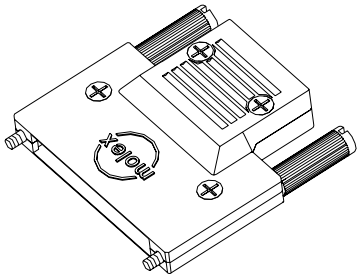
Circuits	Order No.	Lead-free
68	71425-3001	Yes

Includes plug and wire covers

0.80mm (.031") Pitch Ultra+™ VHDCI Strain Relief

73796

Offset Zinc Die Cast



Order No.		Lead-free
Black	Nickel	
73796-3001	73796-3002	Yes

Kit comes complete: 1 upper shell, 1 lower shell, 2 jackscrews and 2 assembly screws
Note: Backshell can be provided with custom logo, consult Molex

Features and Benefits

- Eliminates need for overmolding
- Can be used for both offset and straight cable exit applications
- No secondary operations needed to strain relieve
- Reduces overall labor, eliminates pre-shot, copper wrap, solder and final overmold assembly processes
- Assembly compatible with 4 port PCI bracket applications

Reference Information

Termination Specification Procedure: SD-73796-007
Assembled With: 71425
Designed In: Millimeters

Physical

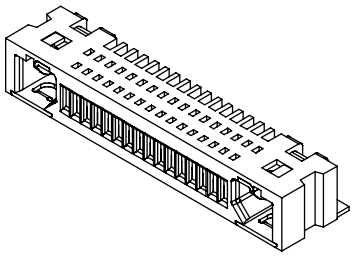
Housing: Zinc
Plating: Nickel or black non-conductive coating

www.molex.com/product/vhdci.html

0.80mm (.031") Pitch HandyLink™ Receptacle

44828

SMT, Right Angle



Order No.	No. of Positions Loaded	Voided Pins	Lead-free
44828-1162	16	None	Yes
44828-1163	15	15	

Features and Benefits

- Data rates compatible with USB 2.0 and IEEE 1394-1995 speeds, rated to 622 Mbs
- Rugged durability rated to 20,000 mating cycles
- Available in 2 to 16 circuit configurations, voided pinouts available to suit various applications
- Polarization feature and passive latching mechanism ensures proper mating with plug, cradle and cable
- Robust, insert molded sealed design supports IP54 protection requirements
- SMT leads allow population to both sides of PCB

Reference Information

Product Specification: PS-44828-001
Packaging: Embossed tape
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: Pending
Mates With: 45593, 45339, 45560 and 36697
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A (up to 3.0 depending on circuit configuration)
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 5 mA max.
Insulation Resistance: 1000 Megohms min.

Mechanical

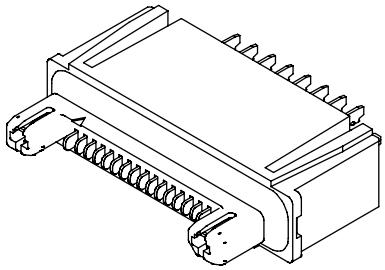
Contact Insertion Force: 0.5N min.
Contact Retention to Housing: 2.5N min.
Mating Force: 20N (4.5 lbf)
Unmating Force: 40N (8.99 lbf)
Normal Force: 0.5N min.
Durability: 20,000 cycles

Physical

Housing: Black LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold over Palladium Nickel
Solder Tail Area—Tin

0.80mm (.031") Pitch HandyLink™ Plug

45339
Wire-terminated Cable Plug



Features and benefits
- Data rates compatible with USB 2.0 and 1EEE 1394-1995 speeds, rated to 622 Mbs
- Rugged durability rated to 20,000 mating cycles
- Available in 2 to 16 circuit configurations, voided pinouts available to suit various applications
- Polarization feature and passive latching mechanism ensures proper mating with receptacle
- First-mate/last-break pins 1 and 16 provide grounding protection during hot plugging. Other FMLB positions available upon request
- Standard and custom cable assemblies available, 36697 series

Reference Information
Product Specification: PS-44828-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: Pending
Mates With: 44828 receptacle
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 1.5A (up to 3.0 depending on circuit configuration)
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 300V
Insulation Resistance: 1000 Megohms min.

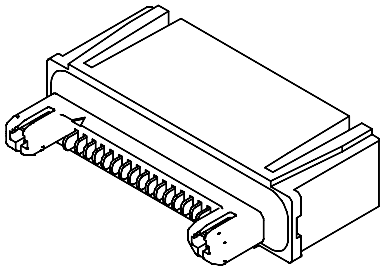
Mechanical
Contact Insertion Force: 0.5N min.
Contact Retention to Housing: 2.5N min.
Mating Force: 20N (4.5 lbf)
Unmating Force: 40N (8.99 lbf)
Normal Force: 0.5N min.
Durability: 20,000 cycles

Physical
Housing: Black LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold over Palladium Nickel
Solder Tail Area—Tin
Wire Range: 22-34 AWG

Order No.	No. of Positions Loaded	Voided Pins	Lead-free
45339-1600	16	None	Yes
45339-1601	2	2 to 15	
45339-1602	8	2 to 8 and 15	
45339-1603	9	2 to 7 and 15	
45339-1604	10	7,10,11,14,15,16	
45339-1605	15	15	
45339-1606	14	7, 8	
45339-1607	5	1 to 3 and 8 to 15	

0.80mm (.031") Pitch HandyLink™ PCB Plug

45593
Through Hole, Vertical



Features and Benefits
- Data rates compatible with USB 2.0 and IEEE 1394-1995 speeds, rated to 622 Mbs
- Rugged durability rated to 20,000 mating cycles
- Available in 2 to 16 circuit configurations, voided pinouts available to suit various applications
- Polarization feature and passive latching mechanism ensure proper mating with receptacle
- First mate, last break pins 1 and 16 provide grounding protection during hot plugging. Other FMLB positions available upon request
- Additional solder tail lengths available upon request

Reference Information
Product Specification: PS-44828-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: Pending
Mates With: 44828 receptacle
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 1.5A (up to 3.0 depending on circuit configuration)
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 300V
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Insertion Force: 0.5N min.
Contact Retention to Housing: 2.5N min.
Mating Force: 20N (4.5 lbf)
Unmating Force: 40N (8.99 lbf)
Normal Force: 0.5N min.
Durability: 20,000 cycles

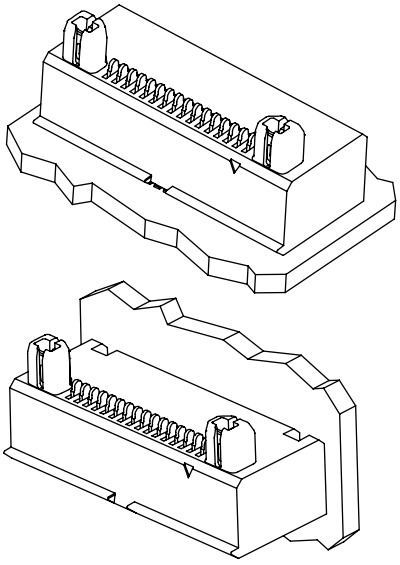
Physical
Housing: Black LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold over palladium Nickel
Solder Tail Area—Tin

Order No.	No. of Positions Loaded	Voided Pins	Lead-free
45593-1600	16	None	Yes
45593-1601	2	2 to 15	
45593-1602	8	2 to 8 and 15	
45593-1603	9	7,8,10,11,14,15	
45593-1604	10	7,10,11,14,15,16	
45593-1605	15	15	
45593-1606	14	7, 8	
45593-1607	5	1 to 3 and 8 to 15	

0.80mm (.031") Pitch HandyLink™ Cradle Connector

45560

SMT, Perpendicular and Parallel Versions



Features and Benefits

- Data rates compatible with USB 2.0 and IEEE 1394-1995 speeds, rated to 622 Mbs
- Rugged durability rated to 15,000 mating cycles
- Available in 2 to 16 circuit configurations, voided pinouts available to suit various applications
- Polarization feature and passive latching mechanism ensures proper mating with receptacle
- Robust design offered in both perpendicular and parallel mounting to the PCB for design flexibility in docking applications
- Optional screw mount hold down to PCB provides additional mechanical stability to PCB

Reference Information

Product Specification: PS-44828-001
Packaging: Embossed tape
UL File No.: E29179
CSA File No.: LR19980
TUV File No.: Pending
Mates With: 44828 receptacle
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A (up to 3.0 depending on circuit configuration)
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 300V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Insertion Force: 0.5N min.
Contact Retention to Housing: 2.5N min.
Mating Force: 20N (4.5 lbf)
Unmating Force: 40N (8.99 lbf)
Normal Force: 0.5N min.
Durability: 15,000 cycles

Physical

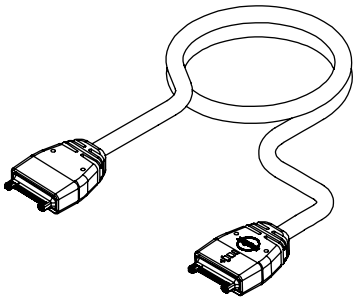
Housing: Black LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold over Palladium Nickel
Solder Tail Area—Tin

Order No.	Description	No. of Positions Loaded	Lead-free
45560-0160	Perpendicular to PCB (vertical)	16	Yes
45560-0161	Parallel to PCB (right angle)		

0.80mm (.031") Pitch HandyLink™ Cable Assembly

36697

HandyLink to HandyLink With Straight Overmolds



Features and Benefits

- Data rates compatible with USB 2.0 and 1394-1995 speeds, rated to 622Mbs
- Rugged durability rated to 20,000 mating cycles
- Polarization feature and passive latching mechanism ensures proper mating with receptacle
- First-mate/last-break pins 1 and 16 provide grounding protection during hot plugging
- Customizable pinouts and personalized logo area available to suit various applications
- Low profile height and compact width provide the perfect solution for small pluggable hand held devices
- Various cable lengths available for design flexibility

Reference Information

Product Specification: PS-36697-001
Packaging: Bag
Mates With: 44828 receptacle
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A (up to 3.0 depending on circuit configuration)
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 300V
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 20N (4.5 lbf)
Unmating Force: 40N (8.99 lbf)
Durability: 20,000 cycles

Physical

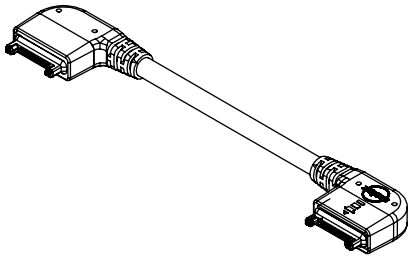
Color: Black
Cable Type: PVC
Contact: Copper Alloy
Plating: Contact Area—Gold over Palladium Nickel

Circuits	Cable Length	Order No.	Wire Gauge	Lead-free
16	1.0m (3.28 ft)	36697-0001	30 AWG	Yes
	2.0m (6.56 ft)	36697-0002		
	3.0m (9.84 ft)	36697-0003		

0.80mm (.031") Pitch HandyLink™ Cable Assembly

36697

HandyLink to HandyLink With Right Angle Overmolds



Features and Benefits

- Data rates compatible with USB 2.0 and 1394-1995 speeds, rated to 622Mbs
- Rugged durability rated to 20,000 mating cycles
- Polarization feature and passive latching mechanism ensures proper mating with receptacle
- First-mate/last-break pins 1 and 16 provide grounding protection during hot plugging
- Customizable pinouts and personalized logo area available to suit various applications
- Low profile height and compact width provide the perfect solution for small pluggable hand held devices
- Various cable lengths available for design flexibility

Reference Information

Product Specification: PS-36697-001
Packaging: Bag
Mates With: 44828 Receptacle
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A (up to 3.0 depending on circuit configuration)
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 300V
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 20N (4.5 lbf)
Unmating Force: 40N (8.99 lbf)
Durability: 20,000 cycles

Physical

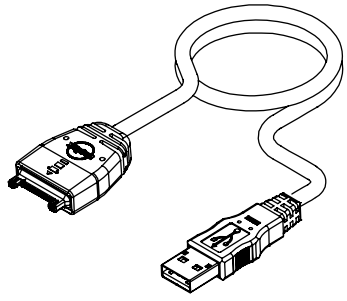
Color: Black
Cable Type: PVC
Contact: Copper Alloy
Plating: Contact Area—Gold over Palladium Nickel

Circuits	Cable Length	Order No.	Wire Gauge	Lead-free
16	1.0m (3.28 ft)	36697-0010	30 AWG	Yes
	2.0m (6.56 ft)	36697-0011		
	3.0m (9.84 ft)	36697-0012		

0.80mm (.031") Pitch HandyLink™ Cable Assembly

36697

HandyLink Straight Overmold to USB "A" Plug



Features and Benefits

- Data rates compatible with USB 2.0 and IEEE 1394-1995 speeds, rated to 622 Mbs
- Rugged durability rated to 20,000 mating cycles
- Polarization feature and passive latching mechanism ensures proper mating with receptacle
- First-mate/last-break pins 1 and 16 provide grounding protection during hot plugging
- Customizable pinouts and personalized logo area available to suit various applications
- Low profile height and compact width provide the perfect solution for small pluggable hand held devices
- Various cable lengths available for design flexibility

Reference Information

Product Specification: PS-36697-001
Packaging: Bag
Mates With: 44828
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A (up to 3.0 depending on circuit configuration)
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 300V
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 20N (4.5 lbf)
Unmating Force: 40N (8.99 lbf)
Durability: 20,000 cycles

Physical

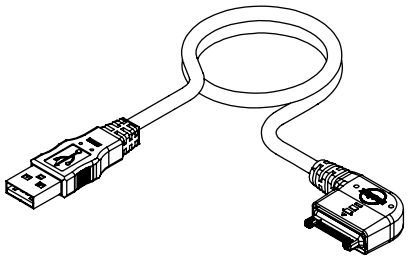
Color: Black
Cable Type: PVC
Contact: Copper Alloy
Plating: Contact Area—Gold over Palladium Nickel

Circuits	Cable Length	Order No.	Wire Gauge	Lead-free
4, plus 1 ground	1.0m (3.28 ft)	36697-0021	26 and 28 AWG	Yes
	2.0m (6.56 ft)	36697-0022		
	3.0m (9.84 ft)	36697-0023		

0.80mm (.031") Pitch HandyLink™ Cable Assembly

36697

HandyLink Right Angle Overmold to USB "A" Plug



Features and Benefits

- Data rates compatible with USB 2.0 and IEEE 1394-1995 speeds, rated to 622 Mbs
- Rugged durability rated to 20,000 mating cycles
- Polarization feature and passive latching mechanism ensures proper mating with receptacle
- First-mate/last-break pins 1 and 16 provide grounding protection during hot plugging
- Customizable pinouts and personalized logo area available to suit various applications
- Low profile height and compact width provide the perfect solution for small pluggable hand held devices
- Various cable lengths available for design flexibility

Reference Information

Product Specification: PS-36697-001
Packaging: Bag
Mates With: 44828
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A (up to 3.0 depending on circuit configuration)
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 300V
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 20N (4.5 lbf)
Unmating Force: 40N (8.99 lbf)
Durability: 20,000 cycles

Physical

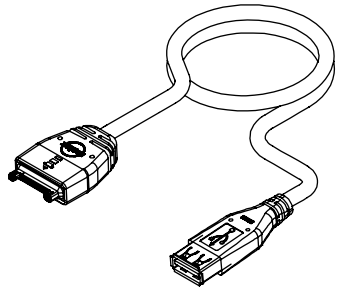
Color: Black
Cable Type: PVC
Contact: Copper Alloy
Plating: Contact Area—Gold over Palladium Nickel

Circuits	Cable Length	Order No.	Wire Gauge	Lead-free
4, plus 1 ground	1.0m (3.28 ft)	36697-0061	26 and 28 AWG	Yes
	2.0m (6.56 ft)	36697-0062		
	3.0m (9.84 ft)	36697-0063		

0.80mm (.031") Pitch HandyLink™ Cable Assembly

36697

HandyLink Straight Overmold to USB "A" Receptacle



Features and Benefits

- Data rates compatible with USB 2.0 and IEEE 1394-1995 speeds, rated to 622 Mbs
- Rugged durability rated to 20,000 mating cycles
- Polarization feature and passive latching mechanism ensures proper mating with receptacle
- First-mate/last-break pins 1 and 16 provide grounding protection during hot plugging
- Customizable pinouts and personalized logo area available to suit various applications
- Low profile height and compact width provide the perfect solution for small pluggable hand held devices
- Various cable lengths available for design flexibility

Reference Information

Product Specification: PS-36697-001
Packaging: Bag
Mates With: 44828
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A (up to 3.0 depending on circuit configuration)
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 300V
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 20N (4.5 lbf)
Unmating Force: 40N (8.99 lbf)
Durability: 20,000 cycles

Physical

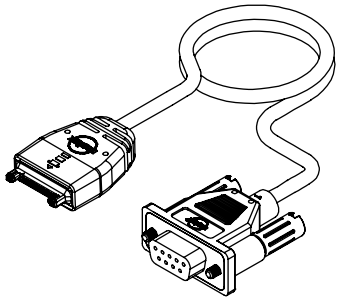
Color: Black
Cable Type: PVC
Contact: Copper Alloy
Plating: Contact Area—Gold over Palladium Nickel

Circuits	Cable Length	Order No.	Wire Gauge	Lead-free
4, plus 1 ground	1.0m (3.28 ft)	36697-0090	26 and 28 AWG	Yes
	2.0m (6.56 ft)	36697-0091		
	3.0m (9.84 ft)	36697-0092		
	.205m (.672 ft)	36697-0093		

0.80mm (.031") Pitch HandyLink™ Cable Assembly

36697

HandyLink Straight Overmold to DB9



Features and Benefits

- Data rates compatible with USB 2.0 and IEEE 1394-1995 speeds, rated to 622 Mbs
- Rugged durability rated to 20,000 mating cycles
- Polarization feature and passive latching mechanism ensures proper mating with receptacle
- First-mate/last-break pins 1 and 16 provide grounding protection during hot plugging
- Customizable pinouts and personalized logo area available to suit various applications
- Low profile height and compact width provide the perfect solution for small pluggable hand held devices
- Various cable lengths available for design flexibility

Reference Information

Product Specification: PS-36697-001
Packaging: Bag
Mates With: 44828
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A (up to 3.0 depending on circuit configuration)
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 300V
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 20N (4.5 lbf)
Unmating Force: 40N (8.99 lbf)
Durability: 20,000 cycles

Physical

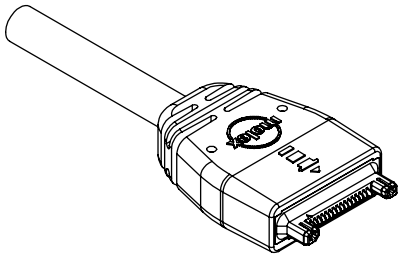
Color: Black
Cable Type: PVC
Contact: Copper Alloy
Plating: Contact Area—Gold over Palladium Nickel

Circuits	Cable Length	Order No.	Wire Gauge	Lead-free
9	1.0m (3.28 ft)	36697-0041	24 AWG	Yes
	2.0m (6.56 ft)	36697-0042		
	3.0m (9.84 ft)	36697-0043		

0.80mm (.031") Pitch HandyLink™ Cable Assembly

36697

HandyLink Straight Overmold to Pigtail



Features and Benefits

- Data rates compatible with USB 2.0 and IEEE 1394-1995 speeds, rated to 622 Mbs
- Rugged durability rated to 20,000 mating cycles
- Polarization feature and passive latching mechanism ensures proper mating with receptacle
- First-mate/last-break pins 1 and 16 provide grounding protection during hot plugging
- Customizable pinouts and personalized logo area available to suit various applications
- Low profile height and compact width provide the perfect solution for small pluggable hand held devices
- Various cable lengths available for design flexibility

Reference Information

Product Specification: PS-36697-001
Packaging: Bag
Mates With: 44828
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.5A (up to 3.0 depending on circuit configuration)
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 300V
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 20N (4.5 lbf)
Unmating Force: 40N (8.99 lbf)
Durability: 20,000 cycles

Physical

Color: Black
Cable Type: PVC
Contact: Copper Alloy
Plating: Contact Area—Gold over Palladium Nickel

Circuits	Cable Length	Order No.	Wire Gauge	Lead-free
16	1.0m (3.28 ft)	36697-0031	30 AWG	Yes
	2.0m (6.56 ft)	36697-0032		
	3.0m (9.84 ft)	36697-0033		

LFH™ Matrix 50 and 75 Connector Systems

The Low Force Helix (LFH) contact was designed for high-pin-count signal applications where there is a need for reliability and performance. Designed for both cable I/O and board-to-board applications, the system's low insertion forces make it ideal for situations where multiple signal lines need to be terminated or packaged in a limited space. The patented "helix" plug pin interfaces with a split-beam receptacle contact giving a low insertion force with 2-point contact reliability.

Circuit sizes range from 60 to 200 circuits in the Matrix 50 system and 96 to 130 circuits in the Matrix 75 system. Matrix 50 features I/O shielding exclusively, while Matrix 75 offers shielded and unshielded versions. Both systems support vertical and right angle board mounting.

Features and Benefits

- Low insertion forces of 42g per contact
- Redundant contact points for long-term reliability
- Normal forces of 75g per beam
- Contact (Hertz) forces averaging 225K psi
- High cycle life via controlled plating and contact surfaces
- Good electrical performance for high-speed applications
- Blind mate options available
- Docking hardware available for I/O systems
- SMT-compatible materials
- Cable assemblies available through Molex
- Termination of high-performance wire—26 to 36 AWG (depending upon application)
- Solder and weld terminations
- M3 and 4-40 hardware
- I/O system is D-sub size for standard panel cutouts, overmolds and hardware use (60 and 96 circuits)
- 30µ" min. Gold/50µ" min. Nickel plating
- Matrix 50 contact layout is on .050 x .050" spacing.
- Matrix 75 layout is on .075 x .075" spacing.

Mechanical

Please refer to individual product pages for details

Materials

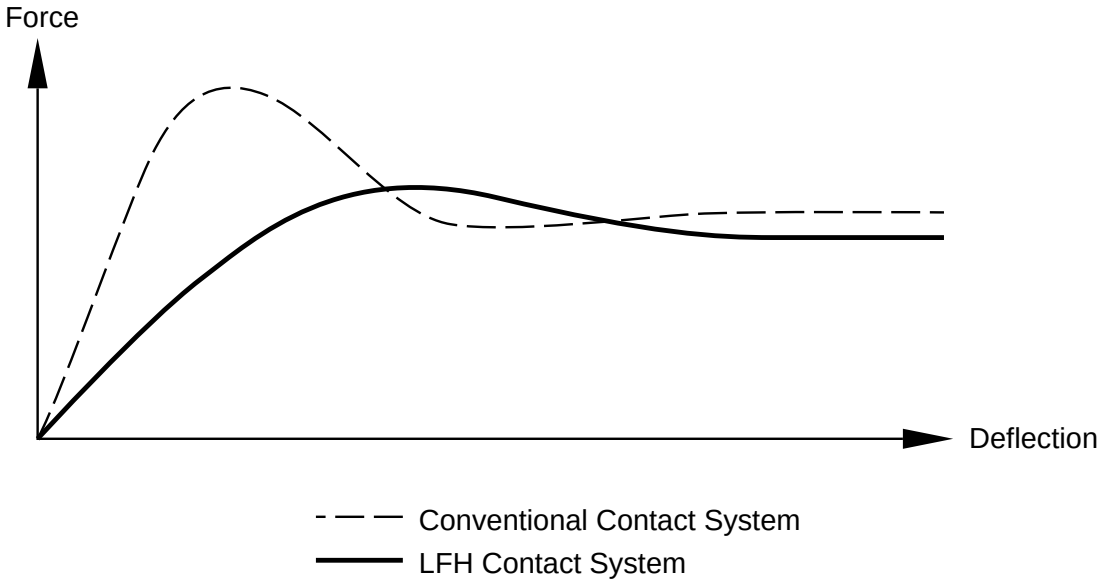
Please refer to individual product pages for details

Environmental/Durability

After Temperature Cycling: <10 milliohms ΔR
After Cycle Humidity: <10 milliohms ΔR
After Flowing Mixed Gas Test: <10 milliohms ΔR
After 5000 Mated Cycles Durability: <10 milliohms ΔR
Please refer to individual product pages for more details

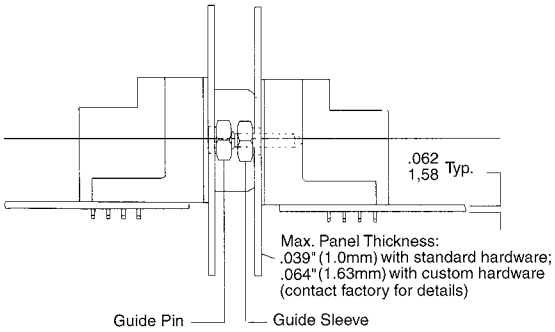
Electrical Characteristics—Matrix 50

Measured at 200 ps rise time for differential signals
Nominal Bandwidth: 3 to 4 GHz
Impedance: 80 to 104 ohms



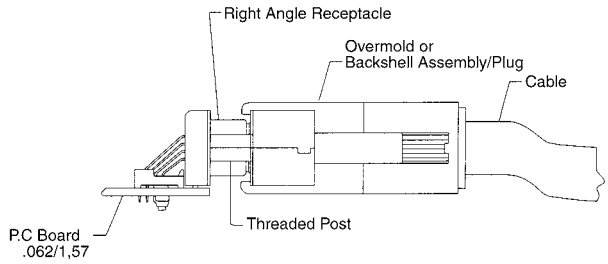
The LFH system's low insertion forces promote high cycle life and extended contact reliability. Compared with conventional contact systems, the patented "helix" LFH interface has a lower initial insertion force with a more gradual ramp up to the full normal force of 75g per beam.

LFH™ Matrix 50 and 75
Typical Applications



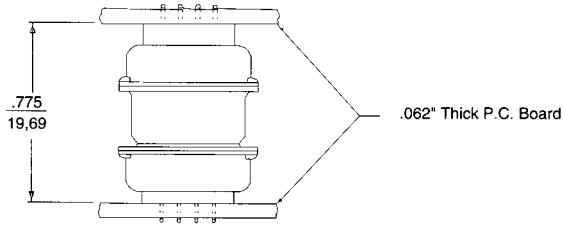
Matrix 50 I/O

Blind Mate Docking
Right Angle Plug to Right Angle Receptacle
60 and 160 Circuit



Matrix 50 I/O

Right Angle Receptacle to Cable Plug
60, 160 and 200 Circuit



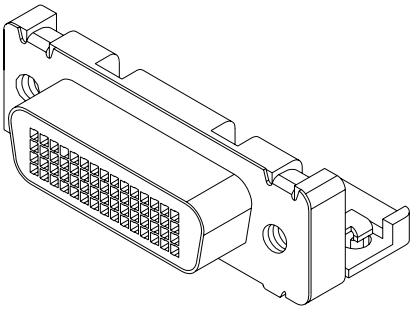
Matrix 75 I/O

Vertical Stacking
96 and 130 Circuit

1.27mm (.050") Pitch LFH™ Matrix 50 Shielded Receptacle

70928

60 Circuit, Right Angle



Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 by .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- Same size as 15-pin D-sub for standard panel cut-outs and hardware use
- M3 threaded inserts for attaching various hardware options
- Docking hardware 71628 and 71629
- Jackposts 70982
- Surface Mount Compatible

Reference Information

Product Specification: PS-70928
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70929
Designed In: Inches

Electrical

Voltage: 40V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force: 60g max.
Mating Force: 50g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

Physical

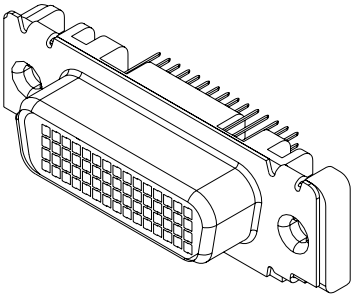
Housing: Glass-filled polymer, UL 94V-0
Contact: Beryllium Copper Alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel in PC tail area
Shields—150µ" min. bright Tin over Nickel all over Copper flash

Circuits	Order No.	PC Tail Length	Lead-free
60	70928-2000	2.01 (.079)	Yes
	70928-2001	2.34 (.092)	
	70928-2002	2.64 (.104)	
	70928-2005	2.01 (.079)	
	70928-2007	3.18 (.125)	

1.27mm (.050") Pitch LFH™ Matrix 50 Shielded Receptacle

70928

60 Circuit, Vertical



Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 by .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- Same size as 15-pin D-sub for standard panel cut-outs and hardware use
- M3 threaded inserts for attaching various hardware options
- Docking hardware 71628 and 71629
- Jackposts 70982
- Surface Mount Compatible

Reference Information

Product Specification: PS-70928
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70929
Designed In: Inches

Electrical

Voltage: 40V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force: 60g max.
Mating Force: 50g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

Physical

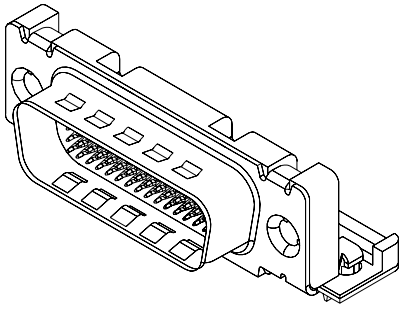
Housing: Glass-filled polymer, UL 94V-0
Contact: Beryllium Copper Alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel in PC tail area
Shields—150µ" min. bright Tin over Nickel all over Copper flash

Circuits	Order No.	PC Tail Length	Lead-free
60	70928-0002	2.34 (.092)	Yes

1.27mm (.050") Pitch LFH™ Matrix 50 Shielded Plug

70929

60 Circuit, Right Angle



Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 by .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- Same size as 15-pin D-sub for standard panel cut-outs and hardware use
- M3 threaded inserts for attaching various hardware options
- Docking hardware 71628 and 71629
- Jackposts 70982
- Surface Mount Compatible

Reference Information

Product Specification: PS-70928
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70928
Designed In: Inches

Electrical

Voltage: 40V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force: 60g max.
Mating Force: 50g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

Physical

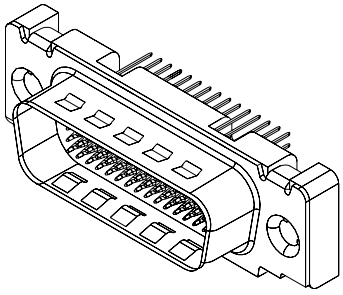
Housing: Glass-filled polymer, UL 94V-0
Contact: Phosphor Bronze Alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel in PC tail area
Shields—150µ" min. bright Tin over Nickel all over Copper flash

Circuits	Order No.	PC Tail Length	Lead-free
60	15-92-2250	2.34 (.092)	Yes
	15-92-2253	2.64 (.104)	

1.27mm (.050") Pitch LFH™ Matrix 50 Shielded Plug

70929

60 Circuit, Vertical



Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 by .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- Same size as 15-pin D-sub for standard panel cut-outs and hardware use
- M3 threaded inserts for attaching various hardware options
- Docking hardware 71628 and 71629
- Jackposts 70982
- Surface Mount Compatible

Reference Information

Product Specification: PS-70928
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70928
Designed In: Inches

Electrical

Voltage: 40V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force: 60g max.
Mating Force: 50g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

Physical

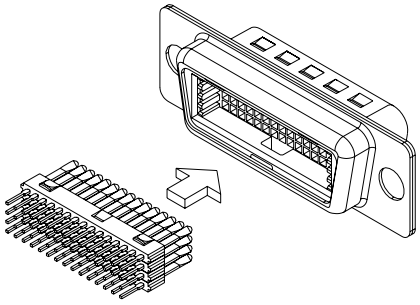
Housing: Glass-filled polymer, UL 94V-0
Contact: Phosphor Bronze Alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel in PC tail area
Shields—150µ" min. bright Tin over Nickel all over Copper flash

Circuits	Order No.	PC Tail Length	Lead-free
60	15-92-2251	2.34 (.092)	Yes

1.27mm (.050") Pitch LFH™ Matrix 50 Plug Cable Kit

70929/70984

Subassembly and Terminal Sticks 60 Circuit



Features and Benefits

- Cable assemblies available through Molex-approved suppliers
- Termination of a variety of wire types 28 to 36 AWG (depending on application)
- Wire terminated by direct weld or solder
- 4 terminal sticks required per subassembly (terminal sticks sold separately)
- Same size as 15-pin D-sub for standard overmolding and back shell hardware

Reference Information

Product Specification: PS-70928
Application Specification: PS-70929
Termination Specification: ES-70929
Packaging: Box and tray
UL File No.: E29179 CSA File No.: LR19980
Mates With: 70928
Designed In: Inches

Electrical

Voltage: 40V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force: 60g max.
Mating Force: 50g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0
Contact: Plugs—Phosphor Bronze Alloy
Receptacle—Beryllium Copper Alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100µ" min. Tin/Lead over Nickel in PC tail area
Shields—150µ" min. bright Tin over Nickel all over Copper flash

Subassembly		
Order No.	**Description**	**Lead-free**
70929-2000*	60-Circuit I/O Plug Connector Subassembly	Yes

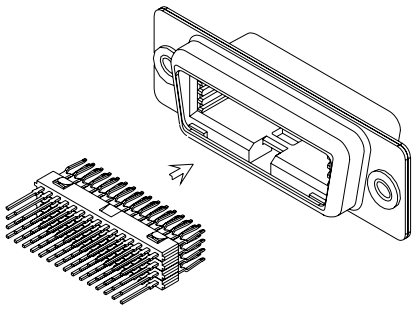
Terminal Sticks—4 Sticks Required per Subassembly			
Order No.	**Description**	**Trim Length**	**Lead-free**
51-24-2021	With Carrier	N/A	Yes
51-24-2022	Trimmed to Length without Carrier	3.30 (.130)	
70984-1007†‡	With Busbar and Carrier	N/A	
70984-1010†			

* Stick Loading Tool 62200-1500 can be used for inserting sticks into subassembly
† Sticks can be trimmed using LFH Stick Preparation Tool Kit 62200-1100
‡ 50µ" Nickel plating on tail area

1.27mm (.050") Pitch LFH™ Matrix 50 Receptacle Cable Kit

71691/70985

Subassembly and Terminal Sticks 60 Circuit



Features and Benefits

- Cable assemblies available from Molex
- Termination of a variety of wire types 28 to 36 AWG (depending on application)
- Wire terminated by direct weld or solder
- 4 terminal sticks required per subassembly (terminal sticks sold separately)
- Same size as 15-pin D-sub for standard overmolding and back shell hardware

Reference Information

Product Specification: PS-70928
Application Specification: PS-71691
Termination Specification: ES-70929
Packaging: Box and tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70929
Designed In: Inches

Electrical

Voltage: 40V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force: 60g max.
Mating Force: 50g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0
Contact: Receptacle—Beryllium Copper Alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel in PC tail area
Shields—100µ" min. bright Tin over Copper

Subassembly		
Order No.	**Description**	**Lead-free**
71691-0003*	60-Circuit I/O Receptacle Connector Subassembly	Yes

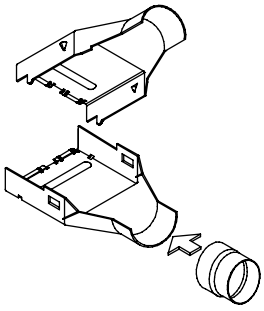
* Stick Loading Tool 62200-1600 can be used for inserting sticks into subassembly

Terminal Sticks—4 Sticks Required per Subassembly			
Order No.	**Description**	**Trim Length**	**Lead-free**
51-25-2011	With Carrier†	N/A	Yes
51-25-2012	Trimmed to Length without Carrier	5.46 (.215)	
51-25-2014		3.30 (.130)	

† Sticks can be trimmed using LFH Stick Preparation Tool Kit 62200-1100

1.27mm (.050") Pitch LFH™ Matrix 50 Hardware

71245
Overmold Can Kit



Overmold Can		
Order No.	Cable Sizes (max.)	Lead-free
71245-2000	11.18 (.440)	Yes
71245-3000	12.57 (.495)	

Features and Benefits
- Use with 60-circuit plug cable kit
- Each can kit includes top and bottom pieces
- Can pieces snap together to provide continuous electrical shielding with connector and cable
- Crimp ferrule 73772 sold separately

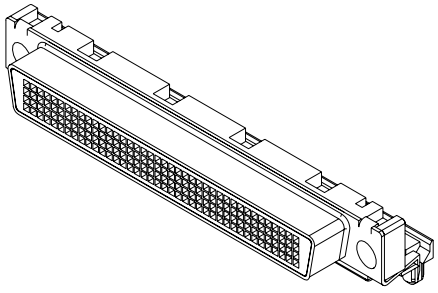
Reference Information
Application Specification: PS-70929
Packaging: Bag
Designed In: Inches

Physical
Plating: Bright Tin over Copper flash

1.27mm (.050") Pitch LFH™ Matrix 50 Shielded Receptacle

71626

160 Circuit, Right Angle



Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 by .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- M3 threaded insert for attaching various hardware options
- Docking hardware 71628 and 71629
- Jackposts 70982
- Surface Mount Compatible

Reference Information

Product Specification: PS-71626
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 71624
Designed In: Inches

Electrical

Voltage: 40V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force: 60g max.
Mating Force: 50g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

Physical

Housing: Glass-filled polymer, UL 94V-0
Contact: Beryllium Copper Alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel in PC tail area
Shields—150µ" min. bright Tin over Nickel all over Copper flash

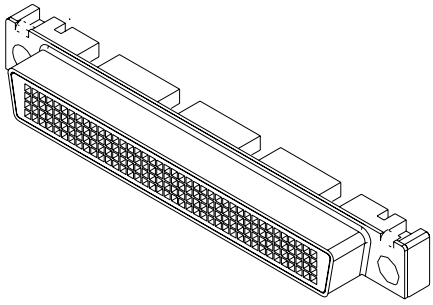
Circuits	Order No.	PC Tail Length	Lead-free
160	51-24-1040	2.34 (.092)	Yes
	51-24-1041	2.01 (.079)	
	71626-2002	3.18 (.125)	
	71626-4000*	2.34 (.092)	

* Guide hardware attached (71629-4000)

1.27mm (.050") Pitch LFH™ Matrix 50 Shielded Receptacle

71626

160 Circuit, Vertical



Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 by .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- M3 threaded insert with optional board lock for attaching various hardware options
- Docking hardware 71628 and 71629
- Jackposts 70982
- Surface Mount Compatible

Reference Information

Product Specification: PS-71626
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 71624
Designed In: Inches

Electrical

Voltage: 40V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force: 60g max.
Mating Force: 50g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

Physical

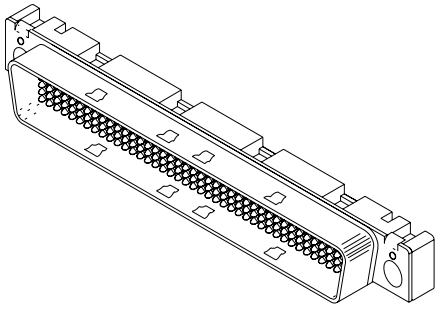
Housing: Glass-filled polymer, UL 94V-0
Contact: Beryllium Copper Alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel in PC tail area
Shields—150µ" min. bright Tin over Nickel all over Copper flash

Circuits	Order No.	Feature	PC Tail Length	Lead-free
160	71626-1001	M3 Threaded Insert with Board Lock	2.34 (.092)	Yes
	71626-1003	M3 Threaded Insert	3.18 (.125)	
	71626-1004	M3 Threaded Insert with Board Lock		
	71626-1006	M3 Threaded Insert	4.49 (.177)	
	71626-1007		5.33 (.210)	
	51-24-1030		2.34 (.092)	

1.27mm (.050") Pitch LFH™ Matrix 50 Shielded Plug

71624

160 Circuit, Right Angle



Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 by .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- Optional M3 threaded insert for attaching various hardware options
- Docking hardware 71628 and 71629
- Jackposts 70982
- Surface Mount Compatible

Reference Information

Product Specification: PS-71626
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 71626
Designed In: Inches

Electrical

Voltage: 40V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force: 60g max.
Mating Force: 50g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

Physical

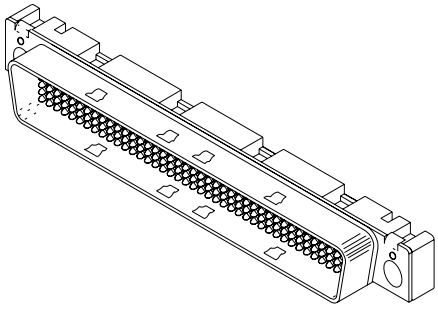
Housing: Glass-filled polymer, UL 94V-0
Contact: Phosphor Bronze Alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100mµ" min. Tin over Nickel in PC tail area
Shields—150µ" min. bright Tin over Nickel all over Copper flash

Circuits	Order No.	Description	PC Tail Length	Lead-free
160	51-25-1040	With M3 Threaded Insert	2.34 (.092)	Yes
	71624-2004	Without M3 Threaded Insert		

1.27mm (.050") Pitch LFH™ Matrix 50 Shielded Plug

71624

160 Circuit, Vertical



Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 by .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- M3 threaded insert with optional board lock for attaching various hardware options
- Docking hardware 71628 and 71629
- Jackposts 70982
- Surface Mount Compatible

Reference Information:

Product Specification: PS-71626
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 71626
Designed In: Inches

Electrical

Voltage: 40V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force: 60g max.
Mating Force: 50g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

Physical

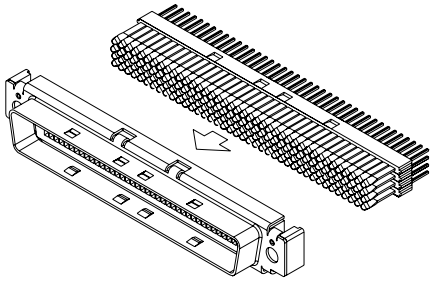
Housing: Glass-filled polymer, UL 94V-0
Contact: Phosphor Bronze Alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel in PC tail area
Shields—150µ" min. bright Tin over Nickel all over Copper flash

Circuits	Order No.	Feature	PC Tail Length	Lead-free
160	51-25-1030	M3 Threaded Insert	2.34 (.092)	Yes
	71624-1001	M3 Threaded Insert with Board Lock		
	71624-1003	M3 Threaded Insert	3.18 (.125)	
	71624-1004	M3 Threaded Insert with Board Lock		
	71624-1013	M3 Threaded Insert	4.50 (.177)	

1.27mm (.050") Pitch LFH™ Matrix 50 Plug Cable Kit

71624/70984

Subassembly and Terminal Sticks 160 Circuit



Features and Benefits

- Cable assemblies available from Molex
- Termination of a variety of wire types 28 to 36 AWG (depending on application)
- Wire terminated by direct weld or solder
- 4 terminal sticks required per subassembly (terminal sticks sold separately)

Reference Information

Product Specification: PS-71626
Application Specification: PS-71624
Termination Specification: ES-70929
Packaging: Box and tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 71626
Designed In: Inches

Electrical

Voltage: 40V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force: 60g max.
Mating Force: 50g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

Physical

Housing:
Glass-filled polymer, UL 94V-0
Contact: Plugs—Phosphor Bronze Alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel in PC tail area
Shields—150µ" min. bright Tin over Nickel all over 50µ" Copper

Subassembly		
Order No.	Description	Lead-free
71624-3000†	160-Circuit I/O Plug Connector Subassembly	Yes

† Stick Loading Tool 62200-1700 can be used for inserting sticks into subassembly

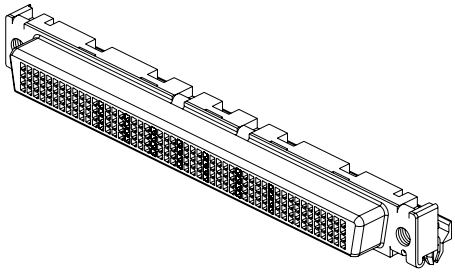
Terminal Sticks—4 Sticks Required per Subassembly			
Order No.	Description	Trim Length	Lead-free
51-25-1020	With Carrier*	N/A	Yes
70984-4009	Trimmed to Length without Carrier	3.30 (.130)	

* Sticks can be trimmed using LFH Stick Preparation Tool Kit 62200-1100

1.27mm (.050") Pitch LFH™ Matrix 50 Shielded Receptacle

71718

200 Circuit, Right Angle



Features and Benefits

- High-performance, Low Force Helix terminal with contact layout .050 by .050"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- M3 threaded inserts for attaching various hardware options
- Docking hardware 71628 and 71629
- Jackposts 70982
- Surface Mount Compatible

Reference Information

Product Specification: PS-71718
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 71719
Designed In: Inches

Electrical

Voltage: 40V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force: 60g max.
Mating Force: 50g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

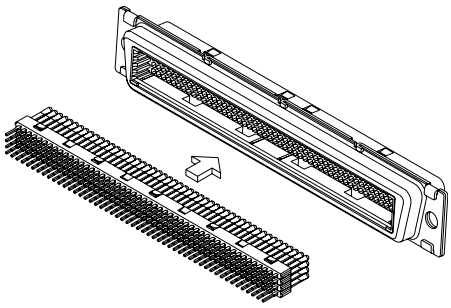
Physical

Housing: Glass-filled polymer, UL 94V-0
Contact: Beryllium Copper Alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel in PC tail area
Shields—150µ" min. bright Tin over Nickel all over Copper flash

Circuits	Order No.	PC Tail Length	Lead-free
200	71718-2000	2.01 (.079)	Yes
	71718-2001	3.05 (.120)	

1.27mm (.050") Pitch LFH™ Matrix 50 I/O Plug Cable Kit

71719/71715
Subassembly and Terminal Sticks 200 Circuit



Features and Benefits
- Cable assemblies available from Molex
- Termination of a variety of wire types 28 to 36 AWG (depending on application)
- Wire terminated by direct weld or solder
- 4 terminal sticks required per subassembly (terminal sticks sold separately)

Reference Information
Product Specification: PS-71719-9999
Application Specification: AS-71719
Termination Specification: AS-71715
Packaging: Box and tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 71718
Designed In: Millimeters

Electrical
Voltage: 40V
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 100 Megohms min.

Mechanical
Contact Insertion Force: 60g max.
Mating Force: 50g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

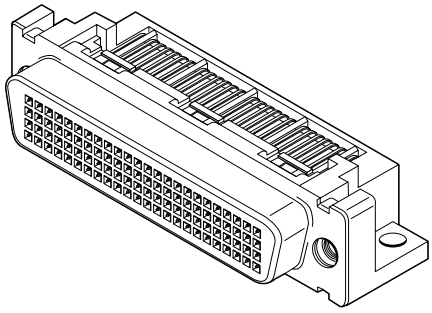
Physical
Housing: Glass-filled polymer. UL94V-0
Contact: Plugs—Phosphor Bronze Alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel in PC tail area
Shields—150µ" min. bright Tin over Nickel all over 50µ" Copper

Subassembly	
Order No.	Description
71719-3000	200 Circuit I/O Plug Connector Assembly

Subassembly		
Order No.	Description	Trim Length
71715-4001	With Carrier	N/A
71715-4002	Trimmed to Length without Carrier	3.30 (.130)

1.90mm (.075") Pitch LFH™ Matrix 75 Shielded Receptacle

70660
96 Circuit Right Angle



Features and Benefits
- High-performance, Low Force Helix terminal with contact layout .075 by .075"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- 96-circuit same size as 50-pin standard D-sub for backshell hardware
- M3 threaded inserts for attaching various hardware options
- Docking hardware 71628 and 71629
- Jackposts 70982
- Surface Mount Compatible

Reference Information
Product Specification: PS-70660
Packaging: Tube
UL File No.: E291794
CSA File No.: LR19980
Mates With: 70665 or 71995
Designed In: Inches

Electrical
Voltage: 40V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 100 Megohms min.

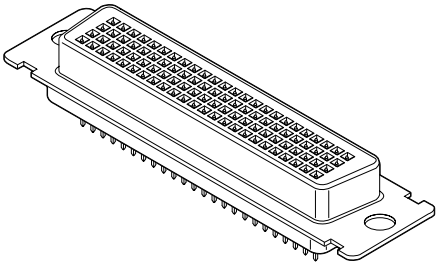
Mechanical
Contact Insertion Force: 84g max.
Mating Force: 60g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

Physical
Housing: Glass-filled polymer, UL 94V-0
Contact: Beryllium Copper Alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel in PC tail area
Shields—100µ" min. bright Tin over Copper

Circuits	Order No.	PC Tail Length	Lead-free
96	51-26-0000	2.34 (.092)	Yes
	51-26-0003	3.43 (.135)	

1.90mm (.075") Pitch LFH™ Matrix 75 Shielded Receptacle

70660
96 Circuit Vertical



Features and Benefits
- High-performance, Low Force Helix terminal with contact layout .075 by. 075"
- High cycle life from controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- 96-circuit same size as 50-pin standard D-sub for backshell hardware
- Surface Mount Compatible

Reference Information
Product Specification: PS-70660
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70665 or 71995
Designed In: Inches

Electrical
Voltage: 40V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 100 Megohms min.

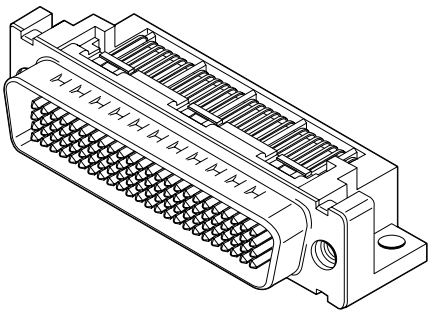
Mechanical
Contact Insertion Force: 84g max.
Mating Force: 60g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

Physical
Housing: Glass-filled polymer, UL 94V-0
Contact: Beryllium Copper Alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel in PC tail area
Shields—100µ" min. bright Tin over Copper

Circuits	Order No.	PC Tail Length	Lead-free
96	51-26-0001	2.34 (.092)	Yes

1.90mm (.075") Pitch LFH™ Matrix 75 Shielded Plug

70665
96 Circuit Right Angle



Features and Benefits
- High-performance, Low Force Helix terminal with contact layout .075 by .075"
- High cycle life form controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- 96-circuit same size as 50-pin standard D-sub for backshell hardware
- M3 threaded inserts for attaching various hardware options
- Docking hardware 71628 and 71629
- Jackposts 70982
- Surface Mount Compatible

Reference Information
Product Specification: PS-70660
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70660 or 71990
Designed In: Inches

Electrical
Voltage: 40V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V.
Insulation Resistance: 100 Megohms min.

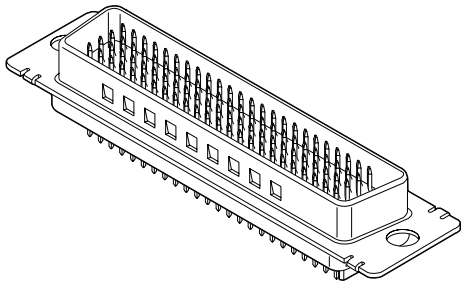
Mechanical
Contact Insertion Force: 84g max.
Mating Force: 60g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

Physical
Housing: Glass-filled polymer, UL 94V-0
Contact: Phosphor Bronze alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel in PC tail area
Shields—100µ" min. bright Tin over Nickel all over Copper

Circuits	Order No.	PC Tail Length	Lead-free
96	51-26-0011	2.34 (.092)	Yes

1.90mm (.075") Pitch LFH™ Matrix 75 Shielded Plug

70665
96 Circuit Vertical



Features and Benefits
- High-performance, Low Force Helix terminal with contact layout .075 by .075"
- High cycle life form controlled plating and contact surfaces
- Suitable for high-density and high-performance applications
- 96-circuit same size as 50-pin standard D-sub for backshell hardware
- Surface Mount Compatible

Reference Information
Product Specification: PS-70660
Packaging: Tube
UL File No.: E29179
CSA File No.: LR19980
Mates With: 70660 or 71990
Designed In: Inches

Electrical
Voltage: 40V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V.
Insulation Resistance: 100 Megohms min.

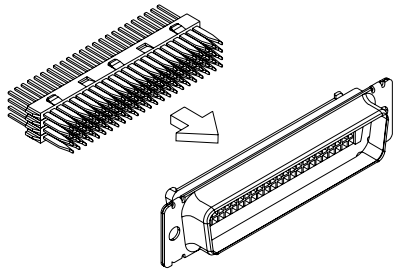
Mechanical
Contact Insertion Force: 84g max.
Mating Force: 60g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

Physical
Housing: Glass-filled polymer, UL 94V-0
Contact: Phosphor Bronze alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel in PC tail area
Shields—100µ" min. bright Tin over Nickel all over Copper

Circuits	Order No.	PC Tail Length	Lead-free
96	51-26-0011	2.34 (.092)	Yes

1.90mm (.075") Pitch LFH™ Matrix 75 Plug Cable Kit

70665
Subassembly and Terminal Sticks 96 and 130 Circuit



Features and Benefits
- Cable assemblies available from Molex
- Termination of a variety of wiere types 26 to 36 AWG (depending on application)
- Wire terminated by direct weld or solder
- Terminal sticks sold separately
- 96-circuit same size as 50-pin standard D-sub for standard overmolding and back shell hardware

Reference Information
Packaging: Box and tray
Mates With: 70660 or 71990
Designed In: Inches

Electrical
Voltage: 40V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V.
Insulation Resistance: 100 Megohms min.

Mechanical
Mating Force: 60g nom.
Unmating Force: 20g min.
Durability: 5000 cycles

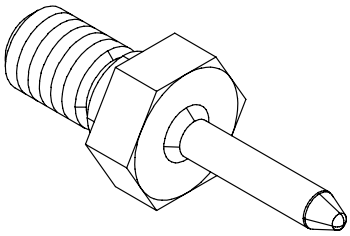
Physical
Housing: Glass-filled polymer, Uk 94V-0
Contact: Plug—Phosphor Bronze Alloy
Receptacle—Beryllium Copper Alloy
Plating: Terminals—30µ" min. Gold over Nickel in contact area, 100µ" min. Tin over Nickel in PC tail area
Shields—150µ" min. bright Tin over Nickel all over Copper flash

Subassemby			
Circuits	Order No.	Description	Lead-free
96	51-26-0012	I/O Plug Connector Subassembly	Yes

Terminal Sticks					
Circuits	Order No.	Description	Trim Length	No. Required per Subassembly	Lead-free
96	51-25-1005	With Carrier	N/A	Four 24-Circuit Sticks	Yes
	51-25-1012	Trimmed to Length without Carrier	3.30 (.130)		
130	51-25-1007	With Carrier	N/A	Five 26-Circuit Sticks	
	71989-2003	Trimmed to Length without Carrier	3.30 (.130)		

LFH™ Matrix 50 and 75 Docking Hardware

71628/71629
Guide Pin and Guide Sleeve



Features and Benefits
- For use with Matrix 50 and 75 products
- Guide pin is heat-treated steel material; guide sleeve is cold-drawn steel material
- Socket size 3/16"
- M3 external thread
- Suitable for docking applications
- Recommended panel thickness is .040" max.

Reference Information
Packaging: Bag
Designed In: Inches

Mechanical
Assembly Torque: 5 in.-lb max.

Physical
Plating: Nickel

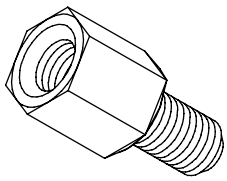
Guide Pin			
Order No.	Dimension		Lead-free
	Mating Pin Length	Thread Length	
71628-3000*	11.68 (.460)	4.37 (.172)	Yes

Guide Sleeve		
Order No.	Dimension	Lead-free
	Thread Length	
71629-4000*	4.37 (.172)	Yes

* Lead-in .050" by 45° (alignment tolerance of 1.5mm radially) for docking applications

LFH™ Matrix 50 and 75 Hardware

70982
Panel Mount Hex Screw Kit



Features and Benefits
- For use with Matrix 50 and 75 products
- Socket size 3/16"
- 4-40 or M3 internal threads
- Recommended panel thickness is .025" max.

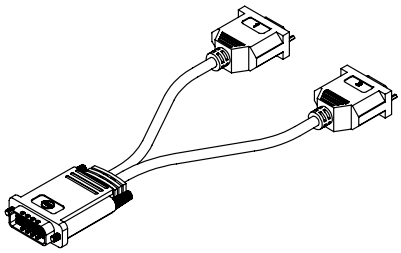
Reference Information
Packaging: Bag
Designed In: Inches

Mechanical
Assembly Torque: 5 in.-lb max.

M3 External Threads					
Kit Order No.	Quantity	Description	Plating	Overall Length	Lead-free
70982-1002	2	4-40 internal threads	Tin	10.01 (.394)	Yes
	4	Washer			
	2	Lockwasher			
		Nut			
70982-1003	1	4-40 internal threads	Yellow Chromate	11.00 (.433)	
70982-1004		M3 internal threads	Tin	10.01 (.394)	
70982-1005		4-40 internal threads	Clear Trivalent Chromate		

DMS-59™
Shielded I/O Cable Assembly

88759
DMS-59 To Dual VGA
DMS-59 To VGA/DVI Analog
DMS-59 To Dual DVI Analog
DMS-59 To Dual DVI Digital



Features and Benefits
- Keyed (void pin number 58) to ensure exclusive mating of receptacle with DMS-59 cable assemblies
- Proven LFH™ (Low Force Helix) high-cycle contact interface system for reliable system life
- Cable assemblies are available in a variety of lengths and configurations

Reference Information
Product Specification: PS-88768-5300
Packaging: Bag
Mates With: DMS-59 receptacle
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 1.0A
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 100 Megohms min.

Mechanical
Insertion Force: 53N max.
Withdraw Force: 22N min.
Durability: 5000 cycles

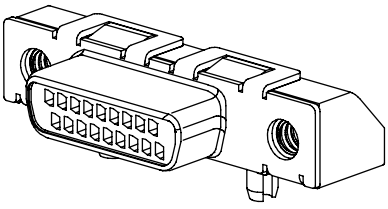
Physical
Housing: White glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.75µm (30µ") min. Gold
Underplating: Nickel
Wire Gauge: 30 AWG

Cable Length (mm)	Order No.	Cable Assembly Description	Lead-free
200	88768-5200	DMS-59-Male to Two VGA-Female Cable Assembly	Yes
	88768-5300	DMS-59-Male to Two DVI-I-Female Cable Assembly	
	88768-5400	DMS-59-Male to VGA-Female + DVI-I-Female Cable Assembly	
2000	88768-5500	DMS-59-Male to Two DVI-D-Male Single Link Cable Assembly	
3000	88768-5510		

www.molex.com/product/io/dms59.html

1.27mm (.050") Pitch TDP™
Triad Differential Pair Receptacle

74960
SMT, Right Angle



Features and Benefits
- Ideal for LVDS applications requiring differential pair capabilities
- The shieded, dual row interface offers high-speed and 100-ohm controlled impedance with data rates up to 5 Gbs
- Inline SMT leads on 0.64mm (.025") pitch provide direct PCB routing
- High cycle LFH™ shrouded contact system provides 2 points of contact for optimal signal integrity
- Optional jack posts available in 4-40 or M3 threads for use with jackscrews for positive mating retention

Reference Information
Product Specification: PS-74960-000
Packaging: Embossed Tape
Mates With: 75000 plug
Use With: 74962 jackposts
Designed In: Millimeters

Electrical
Voltage: 40V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 100 Megohms min.
Differential Impedance:
2.5Gbps: 100 ± 10 ohms at 150psec risetime
5.0Gbps: 100 ± 18 ohms at 75psec risetime

Mechanical
Contact Insertion Force: 0.60N (0.13 lbf) per circuit
Insertion Force to PCB: 44.50N (10.00 lbf) total
Mating Force: 11.17N (2.51 lbf) per circuit
Unmating Force: 6.7N (1.5 lbf) per circuit
Normal Force: 75 g
Durability: 5,000 cycles

Physical
Housing: Black LCP, UL 94V-0
Contact: Copper Alloy
Plating: 15µ" min. Select Gold
Shield: Deep-drawn Steel

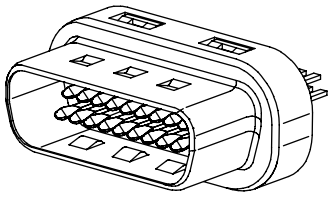
Circuits	Order No.	Threaded Inserts*	Lead-free
18	74960-2018	4-40	Yes
28	74960-2028		
48	74960-2048		

* Also available with M3 threaded inserts

1.27mm (.050") Pitch TDP™ Triad Differential Pair Cable Plug

75000

Wire Terminated



Features and Benefits

- Ideal for LVDS applications requiring differential pair capabilities
- The shielded, dual row interface offers high-speed and 100-ohm controlled impedance with data rates up to 5 Gbs
- First-mate/last-break pins 9 and 10 prevent damage to electrical circuitry when "hot plug" mating
- LFH™ contact design provides shallow mating angle, reducing insertion forces
- Terminates to 24 to 32 AWG high-performance wire through soldering or resistance welding
- Standard and custom cable assemblies available, 79925 series

Reference Information

Product Specification: PS-74960-000
Packaging: Tubes
Mates With: 74960 receptacle
Use With: 75115 backshell
Designed In: Millimeters

Electrical

Voltage: 40V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 100 Megohms min.
Differential Impedance:
2.5Gbps: 100 ± 10 ohms at 150psec risetime
5.0Gbps: 100 ± 18 ohms at 75psec risetime

Mechanical

Contact Insertion Force: 0.60N (0.13 lbf) per circuit
Insertion Force to PCB: 44.50N (10.00 lbf) total
Mating Force: 11.17N (2.51 lbf) per circuit
Unmating Force: 6.7N (1.5 lbf) per circuit
Normal Force: 75g
Durability: 5,000 cycles

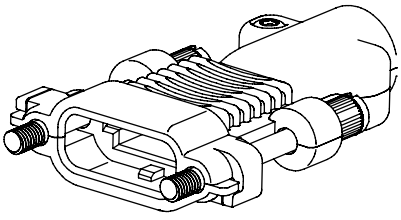
Physical

Housing: Black LCP, UL 94V-0
Contact: Copper Alloy
Plating: 15µ" min. Select Gold
Shield: Deep-drawn Steel

Circuits	Order No.	Description	Lead-free
18	75000-1018	Plug assembled with pre-trimmed tails	Yes
28	75000-1028		
48	75000-1048	Plug assembled with pre-trimmed tails	

1.27mm (.050") Pitch TDP™ Triad Differential Pair Die Cast Backshell

75115



Features and Benefits

- Kit contains two-piece die cast shell and two threaded jackscrews for use with TDP Cable Plug Connector
- User-friendly strain relief eliminates secondary operations
- Ergonomic die-cast shell thumb grip and thumb rest for ease of mating and unmating
- Standard and custom cable assemblies available through Molex, 79925 series

Reference Information

Packaging: Bag
Mates With: 74960
Use With: 75000 and 74155
Designed In: Millimeters

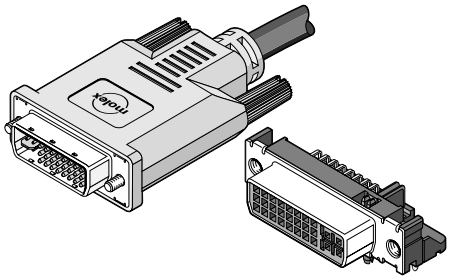
Physical

Plating: Nickel

Circuits	Order No.	Description	Cable Outside Diameter	Lead-free
18	75115-0018	Black finish with 4-40 jackscrew	7.78mm (.310")	Yes
28	75115-0028		8.51mm (.335")	
48	75115-0048		11.18mm (.440")	

Note: Also available with M3 jackscrew option, contact Molex

MicroCross™ DVI Connector Systems



FEATURES

MicroCross Receptacles: DVI-D, DVI-A and DVI-I (74320) Plugs: DVI-D Single Link, DVI-D Dual Link, DVI-A, DVI-I Single Link and DVI-I Dual Link

- MicroCross coax design supports analog video
- LFH™ contact design for high reliability
- DVI video I/O supports the DDWG (Digital Display Working Group) Digital Visual Interface standard
- Right angle and vertical receptacles as well as cable assemblies, adapters and plug components available for a complete system solution
- Surface Mount Compatible
- Saves space on the host unit by integrating functions in one connector
- Staggered contact mating for power, ground and signal sequencing
- Improved bandwidth performance—analog and digital
- Reduced crosstalk
- Impedance controlled for better high speed signal performance
- Field-proven reliability
- Provides a high cycle interface
- Reduces cable assembly need from multiple cables to one
- Fully shielded for RFI/EMI concerns
- Flexible termination capable of many wire sizes and types
- Both video connectors support plug-n-play
- First make, last break
- Protruding receptacle shield for ESD considerations

The Molex MicroCross connector family is based on an innovative use of "crossing" ground blades to provide high-speed electrical performance in a low cost connector format. It was chosen as the interface for the Digital Display Working Group (DDWG) Digital Visual Interface (DVI) standard.

DDWG's DVI standard is grouped into two separate standards, the Digital Visual Interface-Analog/Digital (DVI-I) and the Digital Visual Interface-Digital (DVI-D). This standard provides the future direction for analog and digital video interfaces for the computer industry.

The MicroCross product line is comprised of the DVI-I, the DVI-D and the DVI-A connector systems. The DVI-I supports digital and analog video interfaces whereas the DVI-D only supports a digital video interface. DVI-A supports analog video interface.

DVI provides the solution for higher digital and analog bandwidth requirements for video signaling from the host to the display. Data transfer remains in a digital format, thus eliminating conversion losses and increasing the capacity for high resolution monitors and flat panel displays.

The MicroCross product family fills the needs of the industry for an interconnect system that is low cost, provides a more reliable interface than the existing video I/O connectors, and most importantly, provides increased bandwidth and EMI performance. Where traditional connector designs begin to breakdown at 250 MHz, Molex's MicroCross DVI can provide analog performance to 2.5 GHz. In digital applications, 1.65 Gbps of throughput is provided per data channel and DVI supports 9.9 Gbps over a dual link implementation. Utilizing Molex's LFH redundant contact interface, the MicroCross provides a robust pin and shrouded receptacle design that will take the abuse in handling, provide a low connector insertion force and provide controlled contact interface surfaces, which renders reliability in high life-cycle applications through a variety of environmental conditions.

The MicroCross Product Family Supports the Following Signal Sets:

DVI-I
Analog Video Output (RGB)
DDC
Up to 2 Links of TMDS*
H/V Sync
Hot Plug Detect

DVI-D
DDC
Up to 2 Links of TMDS*
Hot Plug Detect

DVI-A
Analog video output (RGB)
DDC
H/V Sync
Hot Plug Detect

The Electrical Performance of the MicroCross Coax Lines Support:
Impedance: 75W ± 10%
Crosstalk: Less than 2% @ 1V/1n
Bandwidth: 2.5 GHz (analog)

The Electrical Performance of the MicroCross Digital Lines Support:
Impedance: 100W ± 15%
Crosstalk: Less than 5% @ 1.65 Gbps channel data rate
Bandwidth:
DVI Single Link (4.95 Gbps or 1.65 Gbps per data pair) 3 data pairs
DVI Dual Link (9.9 Gbps or 1.65 Gbps per data pair) 6 data pairs
Note: Zero skew within data pairs

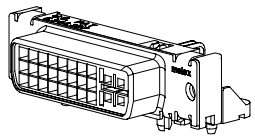
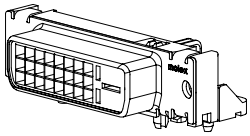
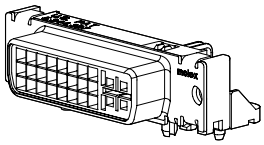
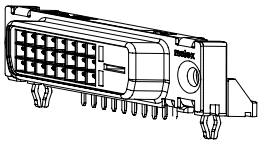
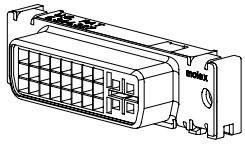
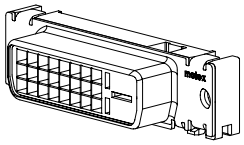
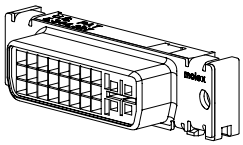
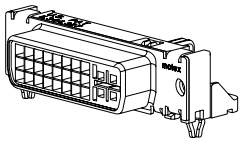
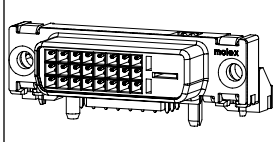
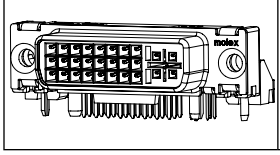
MicroCross™ DVI Connector System Digital Visual Interface Standard

Features

- Through Hole
- Housings: Glass-filled thermoplastic, UL 94V-0
- Contacts: Copper Alloy
- Plating: Gold flash or 30µ" Gold

Specifications

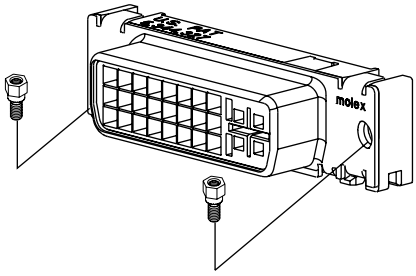
Voltage: 40V
Current: 3.0A

	Description	Options	Order No.	
			Gold Flash	30µ" Gold
	DVI-I Right Angle Digital/Analog Receptacle	PCB Retention: Peg	74320-1004	74320-1000
	DVI-D Right Angle Digital Receptacle	PCB Retention: Peg	74320-4004	74320-4000
	DVI-A Right Angle Analog Receptacle	PCB Retention: Peg	74320-1009	74320-1008
	DVI-D Right Angle Digital ATX Receptacle with Forklocks	PCB Retention: Forklock	74320-9004	74320-9000
	DVI-I Vertical Digital/Analog Receptacle	PCB Retention: Peg	74320-3004	74320-3000
	DVI-D Vertical Digital Receptacle	PCB Retention: Peg	74320-5004	74320-5000
	DVI-A Vertical Analog Receptacle	PCB Retention: Peg	74320-3009	74320-3008
	DVI-I Right Angle Digital/Analog Receptacle with Forklocks	PCB Retention: Forklock	74320-9014	74320-9010
	DVI-D Right Angle Digital Extended Height Receptacle	PCB Retention: Peg	74320-2010	74320-2011
	DVI-I Right Angle Digital/Analog Extended Height Receptacle	PCB Retention: Peg	74320-2020	74320-2021

MicroCross™ DVI-A Analog Visual Interface Receptacle Header and Hardware

74320

Panel Mount Through Hole Vertical



Order No.	Plating	Lead-free
74320-3008	30µ" Gold	Yes
74320-3009	Gold Flash	

Please contact Molex for additional tail length options

Features and Benefits

- Supports analog signal and offers excellent EMI/RFI performance
- Plug and play interface
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface compliant
- The MicroCross coaxial section supports a high bandwidth up to 2.5 GHz analog signal
- Selectively loaded circuits reduce cost

Reference Information

Product Specification: PS-74320-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates with: 88741, 74323 and other plug components
Designed In: Inches

Electrical

Voltage: 40V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 1 lb. min.
Insertion Force to PCB: 10 lb. max.
Mating Force: 10 lb. max.
Unmating Force: 2.2 lb. min.
Durability: 100 cycles

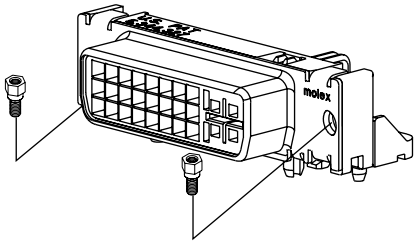
Physical

Housing: Glass-filled thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold or Gold flash in contact area and 100µ" or 150µ" Tin in tail area over Nickel overall
Shields—100µ" bright Tin over Copper overall

MicroCross™ DVI-A Analog Visual Interface Receptacle Header and Hardware

74320

Panel Mount Through Hole Right Angle



Order No.	Plating	Lead-free
74320-1008	30µ" Gold	Yes
74320-1009	Gold Flash	

Please contact Molex for additional tail length options

Features and Benefits

- Supports analog signal and offers excellent EMI/RFI performance
- Plug and play interface
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface compliant
- The MicroCross coaxial section supports a high bandwidth up to 2.5 GHz analog signal
- Selectively loaded circuits reduce cost

Reference Information

Product Specification: PS-74320-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates with: 88741, 74323 and other plug components
Designed In: Inches

Electrical

Voltage: 40V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 1 lb. min.
Insertion Force to PCB: 10 lb. max.
Mating Force: 10 lb. max
Unmating Force: 2.2 lb. min.
Durability: 100 cycles

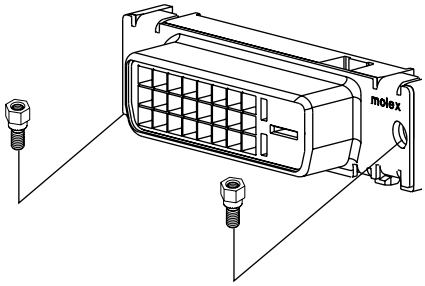
Physical

Housing: Glass-filled thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold or Gold flash in contact area and 100µ" or 150µ" Tin in tail area over Nickel overall
Shields—100µ" bright Tin over Copper overall

MicroCross™ DVI-D Digital Visual Interface Receptacle Header and Hardware

74320

Panel Mount Through Hole Vertical



Order No.	Plating	Lead-free
74320-5000	30µ" Gold	Yes
74320-5004	Gold Flash	

Features and Benefits

- Supports digital signals and offers excellent EMI/RFI performance
- Plug and play interface
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface
- Supports 4.95 Gbps over a single link and 9.9 Gbps performance over a dual link implementation
- Narrow key slot for polarization

Reference Information

Product Specification: PS-74320-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates with: Versions of 88741, 74323 and other plug components
Designed In: Inches

Electrical

Voltage: 40V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1,000 Megohms min.

Mechanical

Contact Retention to Housing: 1 lb. min.
Insertion Force to PCB: 10 lb. max.
Mating Force: 10 lb. max.
Unmating Force: 2.2 lb. min.
Durability: 100 cycles

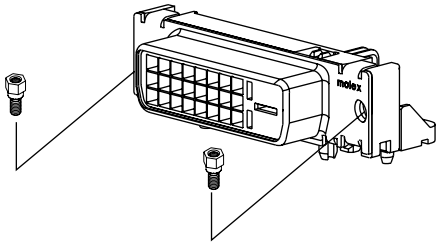
Physical

Housing: Glass-filled thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold or Gold flash in contact area and 100µ" or 150µ" Tin in tail area over Nickel overall
Shields—100µ" bright Tin over Copper overall

MicroCross™ DVI-D Digital Visual Interface Receptacle Header and Hardware

74320

Panel Mount Through Hole Right Angle ATX with Forklocks



Order No.	Plating	Lead-free
74320-9000	30µ" Gold	Yes
74320-9004	Gold Flash	

Please contact Molex for additional tail length options

Features and Benefits

- Supports digital signals and offers excellent EMI/RFI performance
- Plug and play interface
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface
- Supports 4.95 Gbps over a single link and 9.9 Gbps performance over a dual link implementation
- Narrow key slot for polarization

Reference Information

Product Specification: PS-74320-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates with: Versions of 88741, 74323 and other plug components
Designed In: Inches

Electrical

Voltage: 40V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1,000 Megohms min.

Mechanical

Contact Retention to Housing: 1 lb. min.
Insertion Force to PCB: 10 lb. max.
Mating Force: 10 lb. max.
Unmating Force: 2.2 lb. min.
Durability: 100 cycles

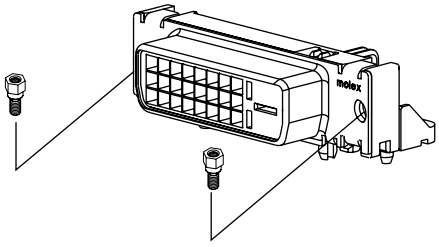
Physical

Housing: Glass-filled thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold or Gold flash in contact area and 100µ" or 150µ" Tin in tail area over Nickel overall
Shields—100µ" bright Tin over Copper overall

MicroCross™ DVI-D Digital Visual Interface Receptacle Header and Hardware

74320

Panel Mount Through Hole Right Angle



Order No.	Plating	Lead-Free
74320-4000	30µ" Gold	Yes
74320-4004	Gold Flash	

Please contact Molex for additional tail length options

Features and Benefits

- Supports digital signals and offers excellent EMI/RFI performance
- Plug and play interface
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface
- Supports 4.95 Gbps over a single link and 9.9 Gbps performance over a dual link implementation
- Narrow key slot for polarization

Reference Information

Product Specification: PS-74320-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: Versions of 88741, 74323 and other plug components
Designed In: Inches

Electrical

Voltage: 40V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 1 lb. min.
Insertion Force to PCB: 10 lb. max.
Mating Force: 10 lb. max.
Unmating Force: 2.2 lb. min.
Durability: 100 cycles

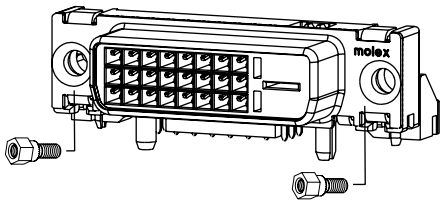
Physical

Housing: Glass-filled thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold or Gold flash in contact area and 100µ" or 150µ" Tin in tail area over Nickel overall
Shields—100µ" bright Tin over Copper overall

MicroCross™ DVI-D Digital Visual Interface Receptacle Header and Hardware

74320

Panel Mount Through Hole Extended Height Right Angle



Order No.	Plating	Lead-free
74320-2010	Gold Flash	Yes
74320-2011	30µ" Gold	

Please contact Molex for additional tail length options

Features and Benefits

- Supports digital signals and offers excellent EMI/RFI performance
- Plug and play interface
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface
- Supports 4.95 Gbps over a single link and 9.9 Gbps over a dual link implementation
- Narrow key slot for polarization

Reference Information

Product Specification: PS-74320-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates with: Versions of 88741, 74323 and other plug components
Designed in: Inches

Electrical

Voltage: 40V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 1 lb min.
Insertion Force to PCB: 10 lb max.
Mating Force: 10 lb max.
Unmating Force: 2.2 lb min.
Durability: 100 cycles

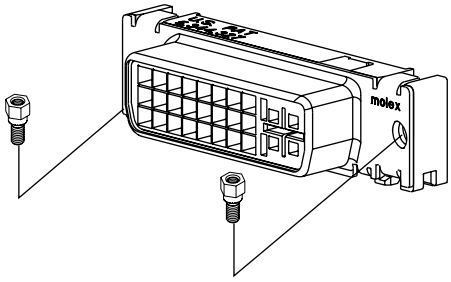
Physical

Housing: Glass-filled thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact —30µ" Gold or Gold flash in contact area and 100µ" or 150µ" Tin in tail area over Nickel overall
Shields—100µ" bright Tin over Copper overall

MicroCross™ DVI-I Digital/Analog Visual Interface Receptacle Header and Hardware

74320

Panel Mount Through Hole Vertical



Order No.	Plating	Lead-free
74320-3000	30µ" Gold	Yes
74320-3004	Gold Flash	

Please contact Molex for additional tail length options

Features and Benefits

- Supports both analog and digital signals
- Plug and play interface
- Excellent EMI/RFI performance
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface
- The digital section supports 4.95 Gbps over a single link and 9.9 Gbps over a dual link.
- The MicroCross coax section supports a high-bandwidth of up to 2.5 GHz analog signal

Reference Information

Product Specification: PS-74320-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates with: 88741, 74323 and other plug components
Designed In: Inches

Electrical

Voltage: 40V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 1 lb. min.
Insertion Force to PCB: 10 lb. max.
Mating Force: 10 lb. max.
Unmating Force: 2.2 lb. min.
Durability: 100 cycles

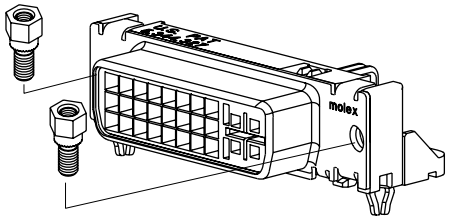
Physical

Housing: Glass-filled thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold or Gold flash in contact area and 100µ" or 150µ" Tin in tail area over Nickel overall
Shields—100µ" bright Tin over Copper overall

MicroCross™ DVI-I Digital/Analog Visual Interface Receptacle Header and Hardware

74320

Panel Mount Through Hole Right Angle with Forklocks



Order No.	Plating	Lead-free
74320-9010	30µ" Gold	Yes
74320-9014	Gold Flash	

Please contact Molex for additional tail length options

Features and Benefits

- Supports both analog and digital signals
- Excellent EMI/RFI performance
- Plug and play interface
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface
- The digital section supports 4.95 Gbps over a single link and 9.9 Gbps over a dual link
- The MicroCross coax section supports a high-bandwidth of up to 2.5 GHz analog signal

Reference Information

Product Specification: PS-74320-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates with: 88741, 74323 and other plug components
Designed In: Inches

Electrical

Voltage: 40V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 1 lb. min.
Insertion Force to PCB: 10 lb. max.
Mating Force: 10 lb. max.
Unmating Force: 2.2 lb. min.
Durability: 100 cycles

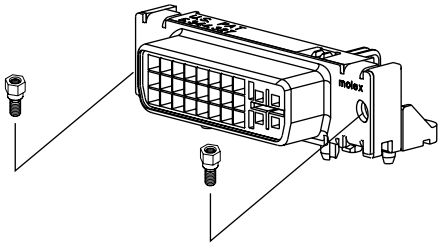
Physical

Housing: Glass-filled thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold or Gold flash in contact area and 100µ" or 150µ" Tin in tail area over Nickel overall
Shields—100µ" bright Tin over Copper overall

MicroCross™ DVI-I Digital/Analog Visual Interface Receptacle Header and Hardware

74320

Panel Mount Through Hole Right Angle



Order No.	Plating	Lead-free
74320-1000	30µ" Gold	Yes
74320-1004	Gold Flash	

Please contact Molex for additional tail length options

Features and Benefits

- Supports both analog and digital signals
- Plug and play interface
- Excellent EMI/RFI performance
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface
- The digital section supports 4.95 Gbps over a single link and 9.9 Gbps over a dual link.
- The MicroCross coax section supports a high-bandwidth of up to 2.5 GHz analog signal

Reference Information

Product Specification: PS-74320-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 88741, 74323 and other plug components
Designed In: Inches

Electrical

Voltage: 40V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 1 lb. min.
Insertion Force to PCB: 10 lb. max.
Mating Force: 10 lb. max.
Unmating Force: 2.2 lb. min.
Durability: 100 cycles

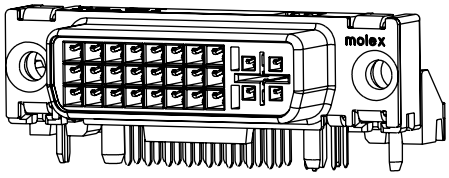
Physical

Housing: Glass-filled thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold or Gold flash in contact area and 100µ" or 150µ" Tin in tail area over Nickel overall
Shields—100µ" bright Tin over Copper overall

MicroCross™ DVI-I Digital/Analog Visual Interface Receptacle Header and Hardware

74320

Panel Mount, Through Hole, Extended Height Right Angle



Order No.	Plating	Lead-free
74320-2020	Gold Flash	Yes
74320-2021	30µ" Gold	

Contact Molex for additional tail length options.

Features and Benefits

- Supports both analog and digital signals
- Plug and play interface
- Excellent EMI/RFI performance
- LFH™ contact design is rugged and reliable
- DDWG DVI standard interface
- The digital section supports 4.95 Gbps over a single link and 9.9 Gbps over a dual link
- The MicroCross coax section supports a high-bandwidth of up to 2.5 GHz analog signal

Reference Information

Product Specification: PS-74320-001
Packaging: Tray
UL File No.: E29179
CSA File No.: LR19980
Mates With: 88741, 74323 and other plug components
Designed In: Inches

Electrical

Voltage: 40V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 1 lb min.
Insertion Force to PCB: 10 lb max.
Mating Force: 10 lb max.
Unmating Force: 2.2 lb min.
Durability: 100 cycles

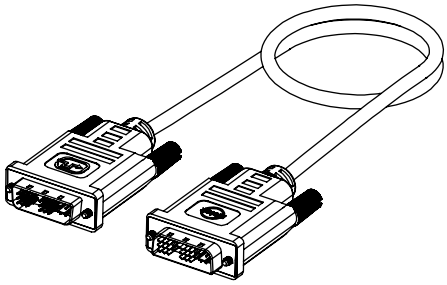
Physical

Housing: Glass-filled thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact—30µ" Gold or Gold flash in contact area and 100µ" or 150µ" Tin in tail area over Nickel overall
Shields—100µ" bright Tin over Copper overall

MicroCross™ DVI Digital Visual Interface, Shielded I/O Cable Assembly

88741

DVI Cable Assembly and DVI Adapter



Features and Benefits

- Full shield provides EMI/RFI protection
- Transmits data at speeds up to 1.65 Gbps per differential pair
- LFH™ (Low Force Helix) rugged contacts offer increased life cycle durability, and mechanical and electrical reliability
- Detent feature provides grounding and secure mating retention
- Jackscrew provides positive lock to mating connector with thread 4-40 UNC-2A

Reference Information

Product Specification: PS-74320-001 and PS-88741-8800
Packaging: Bag
Mates With: 74320 receptacle
Designed In: Millimeters

Electrical

Voltage: 40V
Current: 3.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 4.5kgf max.
Unmating Force: 1.0kgf min./4.0kgf max.
Durability: 100 cycles

Physical

Contact: Copper Alloy
Plating: Contact Area—0.75µm (30µ") min. Gold
Underplating: Nickel
Wire Gauge: 28 AWG

DVI Cable Assembly

Description	Order No.							
	DVI-Digital	P&D-Digital	DFP	Captive Cable	DVI-Digital/Analog	DVI-I-Analog	VGA	P&D-Analog
DVI-Digital To	88741-80XX Single Link (TMDS) 88741-81XX Dual Link (TMDS)	88741-85XX	88741-86XX	88741-96XX				
DVI-Digital/Analog To					88741-90XX Single Link (TMDS)			
DVI-Analog To						88741-82XX	88741-83XX	88741-84XX
Replace XX with order number code:								
	2m (6.56 ft.)		3m (9.84 ft.)			5m (16.40 ft.)		
Black	00		10			20		
White	01		11			21		

DVI Adapter

Description	Order No.			
	DVI-Digital to P&D-Digital	DVI-Digital to DFP	DVI-Analog to VGA	DVI-I-Analog/Digital to DVI-Digital
Plug to Receptacle	88741-8900	88741-8800	88741-8700	
Receptacle to Plug	88741-9200	88741-9300	88741-9100	88741-9400

1.27mm (.050") Pitch Commercial Micro-D Plug

83611/83612/83614
Vertical

Features and Benefits
- Economical solution for commercial and industrial applications requiring the density of a microminiature connector
- Rugged commercial design with a metal interface and grounding tabs for improved mechanical and electrical shield conditions

Reference Information
UL File No.: E34763

Electrical
Current: 1.0A
Contact Resistance: 8 milliohms max.

Mechanical
Contact Engagement Force: 0.5 oz. min. to 8.6 oz. max.
Unmating Force: 0.5 oz. min.

Physical
Housing: Shell—304 Stainless Steel
Insulator—LCP, UL 94V-0
Contact: Pin—Gold-plated Beryllium Copper
Jackpost: Stainless Steel

Circuits	Order No.			Lead-free
	With Jackpost	Without Jackpost	Jackpost	
9	83611-9023	83611-9206	83041-0005	Yes
15	83612-9024	83612-9205		
25	83614-9016	83612-9202		

1.27mm (.050") Pitch Commercial Micro-D Plug

83611/83612/83614
Right Angle

Features and Benefits
- Economical solution for commercial and industrial applications requiring the density of a microminiature connector
- Rugged commercial design with a metal interface and grounding tabs for improved mechanical and electrical shield conditions

Reference Information
UL File No.: E34763

Electrical
Current: 1.0A
Contact Resistance: 8 milliohms max.

Mechanical
Contact Engagement Force: 0.5 oz. min. to 8.6 oz. max.
Unmating Force: 0.5 oz. min.

Physical
Housing: Shell—304 Stainless Steel
Insulator—LCP, UL 94V-0
Contact: Pin—Gold-plated Beryllium Copper
Jackpost: Stainless Steel

Circuits	Order No.			Lead-free
	With Jackpost	Without Jackpost	Jackpost	
9	83611-9006	83611-9016	83041-0005	Yes
15	83612-9020	83612-9022		
25	83614-9012	83614-9014		

1.27mm (.050") Pitch Commercial Micro-D Plug

83619

Right Angle, Dual Stack

Features and Benefits

- Economical solution for commercial and industrial applications requiring the density of a microminiature connector
- Rugged commercial design with a metal interface and grounding tabs for improved mechanical and electrical shield conditions

Reference Information

UL File No.: E34763

Electrical

Current: 1.0A
Contact Resistance: 8 milliohms max.

Mechanical

Contact Engagement Force: 0.5 oz. min. to 8.6 oz. max.
Unmating Force: 0.5 oz. min.

Physical

Housing: Shell—304 Stainless Steel
Insulator—LCP, UL 94V-0
Contact: Pin—Gold-plated Beryllium Copper
Jackpost: Stainless Steel

Circuits	Order No.			Lead-free
	With Jackpost	Without Jackpost	Jackpost	
9	83619-9003	83619-9200	83041-0005	Yes
15	83619-9010	83619-9201		
25	83619-9011	83619-9202		

www.molex.com/product/commercial_micro_d.html

1.27mm (.050") Pitch Commercial Micro-D Cable Receptacle

83421/83422/83424

Assembled

Features and Benefits

- Economical solution for commercial applications requiring the density of a microminiature connector

Reference Information

UL File No.: E34763

Electrical

Current: 1.0A
Contact Resistance: 8 milliohms max.

Mechanical

Contact Engagement Force: 0.5 oz. min. to 8.6 oz. max.
Unmating Force: 0.5 oz. min.

Physical

Housing: Shell—Nickel-plated 1008LC Steel
Insulator—LCP, UL 94V-0
Contact: Socket—Gold-plated Copper alloy
Boot: Santoprene
Jackscrew: Stainless Steel

Circuits	Order No.			Description	Lead-free
	18"~1"	36"~1"	72"~1"		
9	83421-9042	83421-9043	83421-9044	9 Circuit CMD Single End Cable Assembly	Yes
15	83422-9007	83422-9013	83422-9018	15 Circuit CMD Single End Cable Assembly	
25	83424-9019	83424-9020	83424-9021	25 Circuit CMD Single End Cable Assembly	
9	83421-9049	83421-9050	83421-9051	9 Circuit CMD to 9 Circuit CMD Cable Assembly	
15	83422-9053	83422-9054	83422-9055	15 Circuit CMD to 15 Circuit CMD Cable Assembly	
25	83424-9057	83424-9058	83424-9059	25 Circuit CMD to 25 Circuit CMD Cable Assembly	
9	83421-9039	83421-9040	83421-9041	9 Circuit CMD to 9 Circuit Female Standard D-Sub Cable Assembly	
15	83422-9056	83422-9057	83422-9058	15 Circuit CMD to 15 Circuit Female Standard D-Sub Cable Assembly	
25	83424-9063	83424-9064	83424-9065	25 Circuit CMD to 25 Circuit Female Standard D-Sub Cable Assembly	
9	83421-9036	83421-9037	83421-9038	9 Circuit CMD to 9 Circuit Male Standard D-Sub Cable Assembly	
15	83422-9059	83422-9060	83422-9061	15 Circuit CMD to 15 Circuit Male Standard D-Sub Cable Assembly	
25	83424-9060	83424-9061	83424-9062	25 Circuit CMD to 25 Circuit Male Standard D-Sub Cable Assembly	

Cable = 28 AWG-PVC Jacket - shielded -80˚ - 300V - color coded per UL 2464 -Jacket Black

1.27mm (.050") Pitch Commercial Micro-D Cable Receptacle

83421/83422/83424

Kit

Features and Benefits

- Economical solution for commercial and industrial applications requiring the density of a microminiature connector
- "Crimp and poke" configuration designed for hand or semi-automatic crimping

Reference Information

UL File No.: E34763

Electrical

Current: 1.0A
Contact Resistance: 8 milliohms max.

Mechanical

Contact Engagement Force: 0.5 oz. min. to 8.6 oz. max.
Unmating Force: 0.5 oz. min.

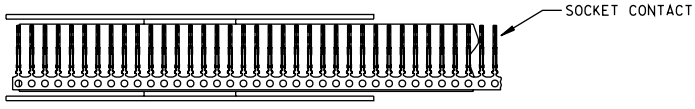
Physical

Housing: Shell—Nickel-plated 1008LC Steel
Insulator—LCP, UL 94V-0
Contact: Socket—Gold-plated Beryllium Copper
Boot: Santoprene
Jackscrew: Stainless Steel

Circuits	Order No.	Lead-free
9	83421-9014	Yes
15	83422-9014	
25	83423-9014	

Terminals

83000*



Order No.	Description
83000-9502	2,500 Piece Reel
83000-9503	50,000 Piece Reel
83000-0083	Loose

* Use with 83421/83422/83424

D-Subminiature Shielded I/O PCB Receptacle

48201

Female, Right Angle Through Hole

Features and Benefits

- Beveled metal pins provide positive PCB retention force
- Metal shell provides EMI/RFI shielding
- Intermateable with industry standard receptacles

Reference Information

Product Specification: PS-48201-001
Packaging: Tray
Mates With: 48202
Designed In: Millimeters

Electrical

Voltage: 300V DC
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention Force: 22.24N
Durability: Gold Flash—600 cycles
30µ" Gold—1000 cycles

Physical

Housing: Glass-filled polyester, UL 94V-0
Contact: Phosphor Bronze
Plating: Solder Tail Area—Tin
Underplating: 50µ" Nickel
PCB Thickness: 1.60mm (.062")

Circuits	Order No.	Lock to Mating Part	Plating Contact	Lead-free
9	48201-6041	4-40 Round Inner Thread Screws Included	30µ" Gold	Yes
	48201-6046	4-40 Hex Internal Thread Screws Included		
	48201-6043	4-40 Hex Internal Thread Screws Assemble		
	48201-6062	Screw Hole, Threaded	Gold Flash	
15	48201-6158	M3 Inner Thread Screws Included	15µ" Gold	
	48201-6157	M2.6 Inner Thread Screws Included		
	48201-6156	4-40 Hex Internal Thread Screws Included		
	48201-6155	M3 Inner Thread Screws Assemble		
	48201-6154	M2.6 Inner Thread Screws Assemble		
	48201-6153	4-40 Hex Internal Thread Screws Assemble		
	48201-6152	Screw Hole, Threaded		
	48201-6166	4-40 Hex Internal Thread Screws Included	Gold Flash	
25	48201-6367	M2.6 Inner Thread Screws Included	Gold Flash	
	48201-6366	4-40 Hex Internal Thread Screws Included		
	48201-6365	M3 Inner Thread Screws Assemble		
	48201-6364	M2.6 Inner Thread Screws Assemble		
	48201-6363	4-40 Hex Internal Thread Screws Assemble		
	48201-6362	Screw Hole, Thread		
	48201-6368	M3 Inner Thread Screws Included		

D-Subminiature Shielded I/O PCB Plug

48202

Male, Right Angle Through Hole

Features and Benefits
- Beveled metal pins provide positive PCB retention
- Indents in metal shell ensure reliable grounding
- Metal shell provides EMI/RFI shielding
- Intermateable with industry standard receptacles

Reference Information
Product Specification: PS-48201-001
Packaging: Tray
Mates With: 48201
Designed In: Millimeters

Electrical
Voltage: 300V DC
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Insertion Force: 22.25N
Durability: Gold Flash—600 cycles
30µ" Gold —1000 cycles

Physical
Housing: Glass-filled polyester, UL 94V-0
Contact: Brass
Plating: Solder Tail Area—Tin
Underplating: 50µ" Nickel
PCB Thickness: 1.60mm (.062")

Circuits	Order No.	Lock to Mating Part	Plating Contact	Lead-free
9	48202-6041	4-40 Round Inner Thread Screws Included	30µ" Gold	Yes
	48202-6042	Screw Hole, Threaded		
	48202-6043	4-40 Hex Internal Thread Screws Assembled		
	48202-6044	M2.6 Inner Thread Screws Assembled		
	48202-6045	M3 Inner Thread Screws Assembled		
	48202-6046	4-40 Hex Internal Thread Screws Included		
	48202-6047	M2.6 Inner Thread Screws Included		
	48202-6048	M3 Inner Thread Screws Included		
	48202-6062	Screw Hole, Threaded	Gold Flash	
	48202-6063	4-40 Hex Internal Thread Screws Assembled		
15	48202-6152	Screw Hole, Threaded	15µ" Gold	
	48202-6153	4-40 Hex Internal Thread Screws Assembled		
	48202-6154	M2.6 Inner Thread Screws Assembled		
	48202-6155	M3 Inner Thread Screws Assembled		
	48202-6156	4-40 Hex Internal Thread Screws Included		
	48202-6157	M2.6 Inner Thread Screws Included		
	48202-6158	M3 Inner Thread Screws Included		
25	48202-6362	Screw Hole, Threaded	Gold Flash	
	48202-6363	4-40 Hex Internal Thread Screws Assembled		
	48202-6364	M2.6 Inner Thread Screws Assembled		
	48202-6365	M3 Inner Thread Screws Assembled		
	48202-6366	4-40 Hex Internal Thread Screws Included		
	48202-6367	M2.6 Inner Thread Screws Included		
	48202-6368	M3 Inner Thread Screws Included		

High Density, DDC Compatible D-Subminiature Shielded I/O PCB Receptacle

48203

Female, Right Angle Through Hole

Features and Benefits
- DDC Compatible D-subminiature
- Beveled metal pin provides positive PCB retention
- Metal shell provides EMI/RFI shielding
- Intermateable with industry-standard receptacles

Reference Information
Product Specification: PS-48203-001
Packaging: Tray
Designed in: Millimeters

Electrical
Voltage: 300V DC
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 1000 Megohms min.

Mechanical
Contact Retention Force: 22.49N
Durability: Gold Flash and 15µ" Gold—600 cycles
30µ" Gold—1000 cycles

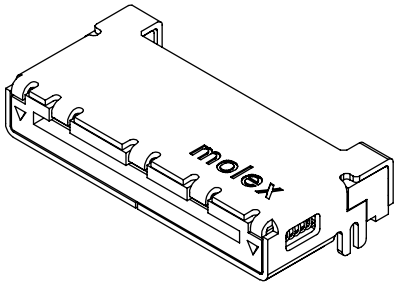
Physical
Housing: Glass-filled polyester, UL 94V-0
Contact: Phosphor Bronze
Plating: Solder Tail Area—100µ" Tin
Underplating: 50µ" Nickel
PCB Thickness: 1.60mm (.062")

Circuits	Order No.	Lock to Mating Part	Plating Contact	Lead-free
15	48203-6042	Screw Hole, Threaded	30µ" Gold	Yes
	48203-6043	4-40 Hex Internal Thread Screws Assembled	30µ" Gold	
	48203-6056	4-40 Hex Internal Thread Screws Included	15µ" Gold	
	48203-6062	Screw Hole, Threaded	Gold Flash	
	48203-6065	M3 Inner Thread Screws Assembled		
	48203-6763	4-40 Hex Internal Thread Screws Assembled		
	48203-6772	Screw Hole, Threaded		

0.50mm (.020") Pitch Shutter I/O

49045

Right Angle SMT, Shielded



Circuits	Order No.	Lead-free
24	49045-0011	Yes

Features and Benefits

- Diecast frame provides strain relief of cable to receptacle and isolates cable loads from SMT tails
- High level of pin-to-PCB compliancy aids coplanarity
- Shielded tab

Reference Information

Product Specification: PS-49045-001
Packaging: Embossed tape
Designed In: Millimeters

Electrical

Voltage: 30V max.
Current: 0.5A max.
Contact Resistance: 50 milliohms max., 100 milliohms max.
Dielectric Withstanding Voltage: 300V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Mechanical

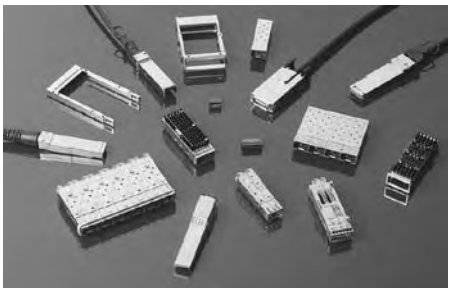
Mating Force: 19.6N max.
Unmating Force: 19.6N max.
Durability: 20,000 cycles

Physical

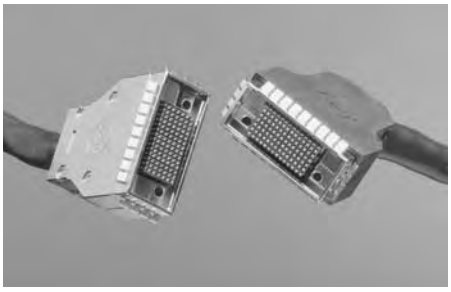
Housing: PA, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold

High-Performance Cable Assemblies

Introduction



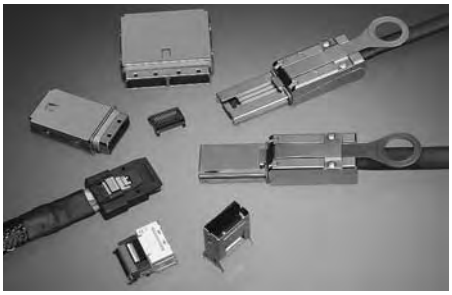
10.0 Gbps Family



VHDM® High-Performance Cable Assembly



Small Form-factor Pluggable (SFP) Multi-port Cages



iPass™ Connnectors and Cable Assemblies for Mini-SAS and Mini-SATA

HIGH LEVEL SUPPORT FOR HIGH-PERFORMANCE CABLE ASSEMBLIES

Developing quality, cost-effective high-performance cable assemblies requires innovation and responsiveness, which is why Molex organized our High-Performance Cable Assemblies Team.

Our interactive, person-to-person environment enables Molex to provide faster response to customer inquiries, as well as develop standard or custom solutions more cost-effectively. The centralized team structure also keeps sales and marketing personnel involved throughout the design and development process for more customer-focused solutions. We routinely conduct cross-functional, "real-life" analysis of designs prior to implementation, which results in more user-friendly products.

Molex Makes Designing High-Performance Cable Assemblies Simple

First we translate your critical design requirements like crosstalk, rise time, skew, impedance, propagation delay, capacitance and attenuation into electrical and mechanical specifications. Then we work with you to determine if one of Molex's standard interconnect products can be used "as is" or modified to meet your specifications.

If your application truly demands a custom solution, we can design and produce one cost-effectively. Our design engineers can construct computer models and test them with computer-aided electrical simulation (SPICE)—as if they were actual assemblies. Mechanical reliability and durability are calculated using Finite Element and Boundary Element Analysis. These computer programs also make it easy to create physical models and prototypes for testing purposes using Molex's in-house stereolithography, CNC and EDM systems. Once you approve the final design and prototype, Molex conducts a Process FMEA that eliminates potential failure modes from the proposed tooling design and manufacturing process.

Molex Also Provides Advanced Manufacturing for Your Cable Assemblies

Our production capabilities include computer-controlled laser wire preparation, thermo-resistance welding, ultra sonic welding, induction reflow soldering, hot bar soldering and insert molding. The finished products are subjected to Molex's stringent quality control processes, including digital/analog electrical testing.

Whether you require only selected services or start-to-finish, turnkey assistance, Molex's High-Performance Cable Assemblies Team is the right choice. We have the resources and experience to meet your exact requirements and to minimize the time-to-market for your high-performance cable assemblies.

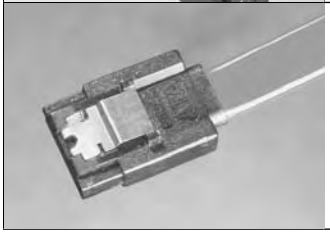
Note: VHDM is a registered trademark of Amphenol Corporation

I/O Cable Assemblies

	Product	Features and Benefits
	**CradleCon™**	• Compact 3.85mm (.152") design to save space • Highly reliable: 10,000 mating cycles • Blind-mating guides to accommodate cradles
	**DMS-59™**	• Rugged LFH™ contact design provides 2 points of contact for optimal signal integrity and reduces insertion force to ensure high reliability • Keyed by voiding out pin 58 • Meets VESA standard
	**HandyLink™**	• Receptacles feature a high-temperature thermoplastic housing that withstands lead-free processing • Plugs are offered in both PCB and wire termination versions to provide design flexibility • Robust cradle design with parts offered in both perpendicular or parallel mounting to PCB, which provides optimal design flexibility for all docking applications
	**High Definition Multimedia Interface* (HDMI)**	• Carries uncompressed audio/video in a single cable at speeds up to 5.0 Gbps • Fully shielded for ESD protection • Mounting flange to protect solder joints and to provide additional grounding
	**IEEE 1394 IEEE 1394b**	• Hot-plugging capability • Peer-to-peer connection system which enables a dense multimedia data stream between products at a speed of 400 Mbps for IEEE 1394 and capable of S3200 for IEEE 1394b-2002 • Keyed to eliminate mismating
	**LFH™**	• Highly reliable: 5,000 mating cycles • Shielded to protect signal integrity • Low mating force
	**MicroCross™ DVI and Adapters**	• Single and dual-link digital signaling allows for high-speed digital transmission (4.95 or 9.9 Gbps) • Analog coaxial lines allow for high-speed analog transmission (2.5 GHz) • Fully shielded for excellent EMI/RFI performance

*High Definition Multimedia Interface and HDMI are trademarks of HDMI Licensing, LLC

I/O Cable Assemblies

	Product	Features and Benefits
	**Modular Plug Assemblies**	• Short and long body styles available to provide design flexibility for standard applications • Protective strain relief covers available to protect wiring • Variety of circuit sizes and plating options
	**Ultra+™ VHDCI**	• Interface dimensions conform to IEC-48B (SEC) 199 specifications • Blank tuning fork terminal for smooth contact and reliability • IDT plug terminates with discrete wire (28 AWG) or flat ribbon cable (.025 to 30 AWG)
	**TDP™**	• High-cycle LFH™ shrouded contact system provides two points of contact for optimal signal integrity • Fully shielded for excellent EMI/RFI performance • Triad contact configuration optimizes bandwidth
	**USB OTG (On-the-Go)**	• Highly reliable: 5,000 mating cycles • Fully shielded for excellent EMI/RFI performance • Up to 127 different peripherals can be connected to this common interface standard
	**SAS Internal**	• Disk/Backplane Interoperability with SATA—to give flexibility to specify best drive for intended use: SAS for transaction/online performance and reliability, Serial ATA for near line and backup/restore storage • 3.0 Gbps transfer rate—to set new standards for enterprise-class performance, second generation on track for 6.0 Gbps throughput • Compact cabling and connectors—to simplify cable routing, saves space and improves airflow/cooling in system cabinets, connectors easily fit on small form factor devices
	**Serial ATA* Internal**	• Backward compatibility, which means it's compatible with existing ATA software drivers and runs on standard operating systems without modification • Scalability, which provides significant headroom for future enhancements to the computing platform as well as improvements in bandwidth performance and data transmission reliability • Cost effectiveness for greater performance improvement potential with 10 year roadmap; allows performance of internal storage devices to continue to increase unabated for years to come

*Serial ATA is a trademark of the Serial ATA℠ Trade Association

Modular Plugs ..... 0-2 to 0-3

Modular Jacks

Right Angle

- High Speed ..... 0-3 to 0-5
  - SMT ..... 0-5 to 0-6
  - Ganged ..... 0-6 to 0-7
- SMT ..... 0-8 to 0-11
- Low Profile ..... 0-11 to 0-13
  - Ganged 0-13
- Standard Profile 0-14
- Inverted ..... 0-15 to 0-16
  - Ganged ..... 0-17 to 0-18

Vertical

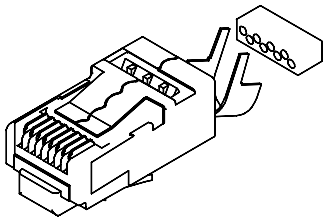
- High Speed ..... 0-18 to 0-19
- SMT ..... 0-19 to 0-20
- Low Profile ..... 0-20 to 0-21
- Standard Profile ..... 0-21 to 0-23
- Bottom-Entry, Low Profile 0-24

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

molex®
one company › a world of innovation

Modular Plug

44915
RJ-45/FCC 68
Long Body, 8 Position



Features and Benefits
- Meets Category 6 channel performance
- Dual-row contacts reduce crosstalk between critical pairs
- Load bar provides consistent termination of twisted pairs
- Shielded version available with or without strain relief
- Terminated with industry-standard RJ-45 application tooling

Reference Information
Product Specification: PS-44915-003
Packaging: Bulk
UL File No.: E107635
Mates With: FCC 68 Jacks
Designed In: Inches

Electrical
Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

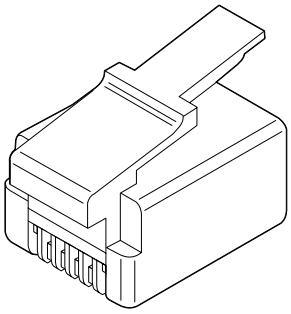
Mechanical
Durability: 500 cycles

Physical
Housing: Polycarbonate, UL 94V-0
Contact: Phosphor bronze
Plating: Contact Area—1.27µm (50µ") min. Gold
Nickel overall

Circuits	Loaded Contacts	Strain Relief	Order No.		Lead-free
			Unshielded	Shielded	
8	8	No	44915-0001		Yes
				44915-0011	
		Yes		44915-0021	

Modular Plug

90075
FCC 68
Short Body



Features and Benefits
- Pre-assembled contacts
- To terminate flat oval telephone cord to REA
- Bulletin 345-80, PE 75
- 4-, 6- and 8-way loaded or partially loaded

Reference Information
Product Specification: PS-90075-E
Packaging: Bag
UL File No.: E107635
Mates With: WE Co. and FCC 68 jacks
Designed In: Millimeters

Electrical
Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V rms
Insulation Resistance: 500 Megohms min.

Mechanical
Cable to Plug Tensile Strength: 7.71kg (17 lb) min.

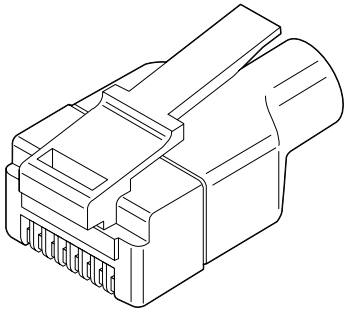
Physical
Housing: Natural polycarbonate, UL 94V-2
Contact: Phosphor Bronze
Plating: 1.27µm (50µ") Gold in contact area and
Tin in pierce area, both over Nickel

Circuits	Order No.	Loaded Contacts	Lead-free
4	90075-0027	4	Yes
6	90075-0035	4	
6	90075-0031	6	
8	90075-0141	8	

Modular Plug

95043

8 Position, Shielded



Features and Benefits

- Eight-way RJ-45 fully shielded plug
- One-piece dual-function shield for optimal strain relief (hex crimp) and 360˚ shielding
- Selectively Gold-plated contact
- Terminates with 5.40 or 6.00mm LAN, STP or ISDN recommended round cables
- Rubber boot for ideal grip, color coded for line tracing and different network types
- Meets CAT 5 to EIA/TIA 568 B requirements (100 Mbits/s)

Reference Information

Product Specification: PS-95043-F
Packaging: Bag
UL File No.: E107635
CSA File No.: LR19980-478
Mates With: WE Co. and FCC 68 jacks

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V rms
Insulation Resistance: 500 Megohms min.

Mechanical

Cable to Plug Tensile Strength: 10kg (21 lb) min.

Physical

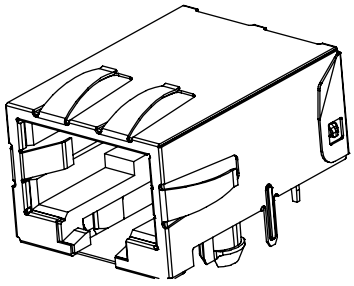
Housing: Natural polycarbonate, UL 94V-2
Contact: Phosphor Bronze
Plating: 1.27µm (50µ") Gold in contact area and Tin in pierce area, both over Nickel

Circuits	Order No.		Loaded Contacts	Boot Color	Lead-free
	For 5.40mm Cable	For 6.00mm Cable			
8	95043-2891	95043-5891	8	Black	Yes
	95043-2892	95043-5892	8	Beige/Gray	
	95043-2893	95043-5893	8	Green	
	95043-2894	95043-5894	8	Red	
	95043-2895	95043-5895	8	Yellow	
	95043-2896	95043-5896	8	Blue	
	95043-2881	95043-5881	8	Without boot	

Modular Jack

44661

High Speed, Right Angle
Ultra Low Profile
Shielded and Unshielded Versions



Features and Benefits

- Under 10.00mm (.394") in height
- Exceeds Category 5 performance
- Gigabit Ethernet compatible
- Enclosed top
- Shield with various ground options
- Industry standard footprint
- 100% tested for hi-pot and continuity

Reference Information

Product Specification: PS-44560-003
Packaging: Tray
UL File No.: E107635
CSA File No.: LR19980
Mates With: FCC 68 Plugs
Designed In: Inches

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 25 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Durability: 750 cycles min.

Physical

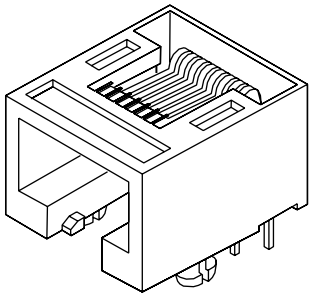
Housing: Black glass-filled nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold
Solder Tails—2.54µm (100µ") min. Tin
Nickel Overall

Circuits	Loaded Contacts	Shield Option	Order No.		Lead-free
			Snap-Fit Pegs	Press-Fit Pegs	
8	8	No Shield	44661-0002	44661-1002	Yes
		Standard Shield	44661-0001	44661-1001	
		Enhanced Ground Tabs	44661-0011	44661-1011	
		Bezel Ground Tabs	44661-0021	44661-1021	

Modular Jack

85503

High-Speed, Right Angle Low Profile



Features and Benefits

- Performance better than category 5E
- Very low profile–about 3/4 that of industry standard
- Automatic placement possible
- Foot pattern identical to industry standard
- High reliability, square contact

Reference Information

Product Specification: PS-95001-E
Packaging: Tray and Tube
UL File No.: E107635
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.

Physical

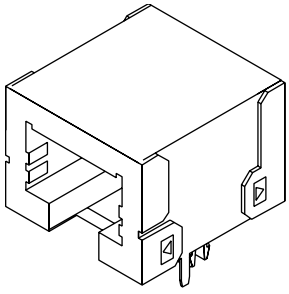
Housing: Black LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Post plate 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Packaging	Description	Lead-free
8	8	85503-0001	Tray		Yes
		85503-0002	Tube		
		85503-0005	Tray	With Insulation Cover	

Modular Jack

85505

High-Speed, Right Angle Low Profile, Shielded



Features and Benefits

- Performance better than category 5E
- Fully shielded connectors
- Advanced EMI/RFI protection
- ISDN standard
- Industry standard footprint and height

Reference Information

Product Specification: PS-85505
Packaging: Tray
UL File No.: E107635
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.
Shielding Effectiveness: 20 dB min.

Physical

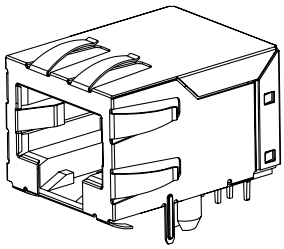
Housing: Black LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Post plate 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Panel Ground	Lead-free
8	8	85505-0002	Sides	Yes
		85505-0013	No	
		85505-0014	Top	

Modular Jack

44050

High Speed, Right Angle
Low Profile
Shielded and Unshielded Versions



Features and Benefits

- Exceeds Category 5 performance
- Gigabit Ethernet compatible
- Enclosed top
- Industry Standard Footprint
- Shield with enhanced panel grounding tabs
- 100% tested for hi-pot continuity

Reference Information

Product Specification: PS-44050-003
Packaging: Tray
UL File No.: E107635
CSA File No.: LR19980
Mates with: FCC68 plugs
Designed In: Inches

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Durability: 500 cycles min.

Physical

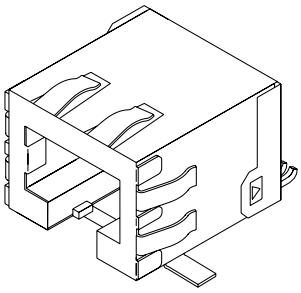
Housing: Black glass-filled nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold
Solder Tails—2.54µm (100µ") min. Tin, Nickel overall

Circuits	Loaded Contacts	Order No.					Lead-free
		Unshielded	Shielded				
			With All Panel Grounding Tabs		With Offset Panel Grounding Tabs		
			Front PCB Ground Tab Option	Rear PCB Ground Tab Option	Front PCB Ground Tab Option	Rear PCB Ground Tab Option	
8	8	44050-0001					Yes
			44050-0007		44050-0009		
			44050-0002		44050-0004		
			44050-0006		44050-0008		
				44050-0003		44050-0005	

Modular Jack

85543

High Speed, SMT
Right Angle, Low Profile, Shielded



Features and Benefits

- Fully-shielded connector
- Shield with enhanced panel grounding tabs
- Exceeds Category 5 performance
- Automatic vacuum placement

Reference Information

Product Specification: PS-95122 and PS-85505 (Section 5.2)
Packaging: Antistatic blister tape on reels
Mates With: FCC68 plugs
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.
Shielding Effectiveness: 20dB min.

Physical

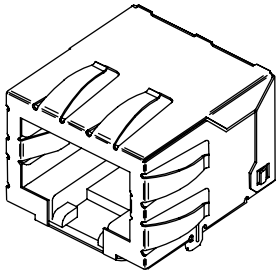
Housing: Black LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Post plate 1.27 to 1.52mm (50 to 60µ") Gold
Solder Tail Area—1.90mm (75µ") min. Tin
Underplating—Nickel

Circuits	Loaded Contacts	Order No.	Grounding Tabs	SMT	Lead-free
8	8	85543-0001	Yes	Yes	Yes
		85543-0002	No		
		85543-0003	Yes	No	

Modular Jack

44282

Right Angle, Low Profile Shielded, SMT



Features and Benefits

- Surface mount solder tab provides retention to the PCB and strain relief for PC tails
- Tabs on shield provide enhanced grounding to panel
- Side-to-side stackable for modular configurations
- 0.15mm (.006") max. tail-to-tail coplanarity ensures high reliability during surface mount soldering
- 100% electrically tested for hi-pot and continuity

Reference Information

Product Specification: PS-43743-0001
Packaging: Tape and reel
UL File No.: E107635
CSA File No.: LR19980
Mates With: FCC 68 Plugs
Designed In: Inches

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Durability: 500 cycles min.

Physical

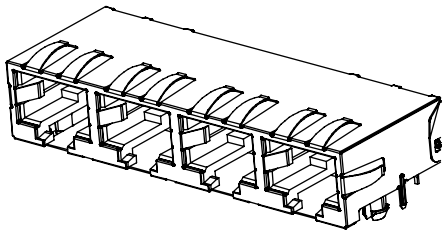
Housing: Black glass-filled nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold
Solder Tail Area—2.54µm (100µ") min. Tin
Nickel Overall

Circuits	Loaded Contacts	Shield Side Tabs	Shield Top Tabs	Location Tabs	Order No.	Lead-free
8	8	Yes	Yes	Yes	44282-0001	Yes
		No			44282-0004	
		Yes		No	44282-0007	
		No			44282-0010	

Modular Jack

44560

High Speed, Ganged Right Angle, Ultra Low Profile Shielded and Unshielded Versions



Features and Benefits

- Under 10.00mm (.394") in height
- Exceeds Category 5 performance
- Gigabit Ethernet compatible
- 2 and 4 port configurations available
- Shield with various ground options
- Industry standard footprint
- 100% tested for hi-pot and continuity

Reference Information

Product Specification: PS-44560-003
Packaging: Tray
UL File No.: E107635
CSA File No.: LR19980
Mates With: FCC 68 Plugs
Designed In: Inches

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 25 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Durability: 750 cycles min.

Physical

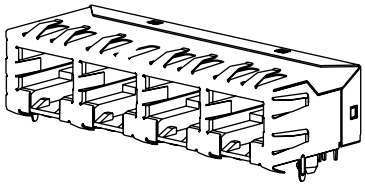
Housing: Black glass-filled nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold
Solder Tails—2.54µm (100µ") min. Tin
Nickel Overall

Circuits	Loaded Contacts	No. of Ports	Shield Option	Order No.	Lead-free
8	8	2	No Shield	44560-0001	Yes
		4		44560-0003	
		2	Standard Shield	44560-0002	
		4		44560-0004	
		2	Enhanced Ground Tabs	44560-0012	
		4		44560-0014	
		2	Bezel Ground Tabs	44560-0022	
		4		44560-0024	

Modular Jack

44150

High Speed, Ganged Right Angle, Low Profile Shielded and Unshielded Versions



Features and Benefits

- Exceeds Category 5 performance
- Gigabit Ethernet compatible
- 2, 4, 6 and 8 port configurations available
- Shield with enhanced panel grounding tabs
- 100% tested for hi-pot and continuity
- Industry Standard Footprint

Reference Information

Product Specification: PS-44050-003
Packaging: Tray
UL File No.: E107635
CSA File No.: LR19980
Mates With: FCC 68 Plugs
Designed In: Inches

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Durability: 500 cycles min.

Physical

Housing: Black Glass-filled nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold
Solder Tails—2.54µm (100µ") min. Tin, Nickel overall

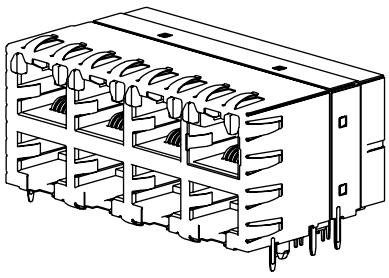
Circuits	Loaded Contacts	No. of Ports	Order No.						Lead-free
			Unshielded		Shielded				
					Side PCB Grounding Tab Location				
					Option 1*		Option 2*		
			Snap-Fit Pegs	Press-Fit Pegs	Snap-Fit Pegs	Press-Fit Pegs	Snap-Fit Pegs	Press-Fit Pegs	
8	8	2	44150-0001	44150-0017	44150-0005	44150-0021	44150-0011	44150-0027	Yes
		4	44150-0002	44150-0018	44150-0006	44150-0022	44150-0012	44150-0028	
		6	44150-0003	44150-0019	44150-0007	44150-0023	44150-0013	44150-0029	
		8	44150-0004	44150-0020	44150-0008	44150-0024	44150-0014	44150-0030	

Note: Visit www.molex.com for alternative rear grounding tab option on 4 and 8 part versions.
*See sales drawing for exact location

Modular Jack

44170

High Speed, Stacked Multi-Port, Right Angle Shielded with Lightpipes



Features and Benefits

- Exceeds Category 5 performance
- Traditional industry pin layout
- Distinctive lightpipe arrow indicators
- Lower electrical noise than LED offerings
- 30% fewer leads than LED offerings
- Space saving design

Reference Information

Product Specification: PS-44050-003
Packaging: Tray
UL File No.: E107635
CSA File No.: LR19980
Mates With: FCC 68 Plugs
Designed In: Inches

Electrical

Voltage: 125V
Current: 1.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Durability: 500 Cycles

Physical

Housing: Black glass-filled Polyester, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold
Solder Tails—2.54µm (100µ") min. Tin, Nickel overall

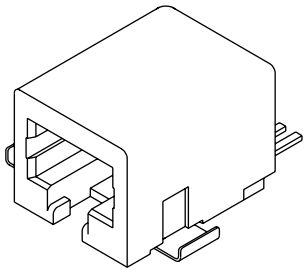
Circuits	Loaded Contacts	No. of Ports	Order No.		Lead-free
			Snap Fit Pegs	Press Fit Pegs	
8	8	8	44170-0001	44170-0004	Yes
		12	44170-0002	44170-0005	
		16	44170-0003	44170-0006	

Note: Visit www.molex.com for alternative side panel and inner/rear grounding tab option order numbers.
44520 Series available without lightpipes. Visit www.molex.com for order numbers.

Modular Jack

44144/43743

SMT, Right Angle, Low Profile With Flush or Outboard Fitting Nails



Features and Benefits

- Flush fitting nails allow for side-by-side stackability
- Outboard fitting nails provide robust retention feature
- Enclosed top
- 100% electrically tested
- .006" max. "nail-to-tail" coplanarity

Reference Information

Product Specification: PS-43743-0001
Packaging: Tape and reel
UL File No.: E107635
CSA File No.: LR19980
Mates With: FCC 68 plugs
Designed In: Inches

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Durability: 500 cycles min.

Physical

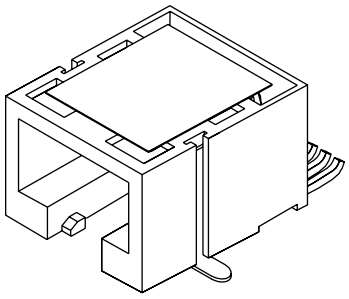
Housing: Black glass-filled nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold
Solder Tails—2.54µm (100µ") min. Tin, Nickel overall

Circuits	Loaded Contacts	Order No.		Lead-free
		Flush Fitting Nail	Outboard Fitting Nail	
6	4	44144-0004	43743-6101	Yes
	6	44144-0005	43743-6001	
8	8	44144-0003	43743-8101	

Modular Jack

85502

SMT, Right Angle Low Profile



Features and Benefits

- Very low profile–about 3/4 that of industry standard
- Automatic vacuum placement possible
- Foot pattern identical to industry standard
- High reliability, square contact
- 0.10mm coplanarity

Reference Information

Product Specification: PS-85502
Packaging: Anti-static blister reel
UL File No.: E107635
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Insulation Resistance: 500 Megohms min.

Physical

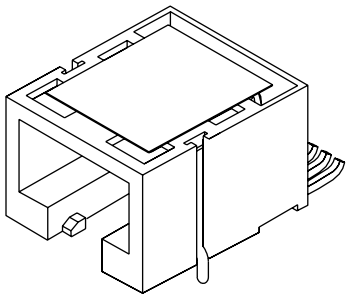
Housing: Black LCP, UL 94V-0
Contact: Brass
Plating: Post plate 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Lead-free
4	4	85502-5005	Yes
6	4	85502-5006	
6	6	85502-5007	
8	8	85502-5008	

Modular Jack

85502

SMT, Right Angle
Low Profile
For Pin in Hole Reflow



Features and Benefits

- Very low profile—about 3/4 that of industry standard
- Automatic vacuum placement possible
- Foot pattern identical to industry standard
- High reliability, square contact
- 0.10mm coplanarity

Reference Information

Product Specification: PS-85502
Packaging: Anti-static blister reel
UL File No.: E107635
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Insulation Resistance: 500 Megohms min.

Physical

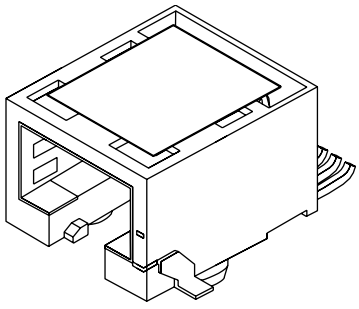
Housing: Black LCP, UL 94V-0
Contact: Brass
Plating: Post plate 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Lead-free
4	4	85502-5009	Yes
6	4	85502-5010	
6	6	85502-5011	
8	8	85502-5012	

Modular Jack

95540

SMT, Right Angle,
Low Profile
Internal Shield with
Locating Pegs



Features and Benefits

- High reliability, square contact
- EMI/RFI protection
- ISDN standard
- Automated vacuum placement
- 0.10mm coplanarity

Reference Information

Product Specification: PS-95040
Packaging: Blister reel
UL File No.: E107635
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.
Shielding Effectiveness: 20 dB min.

Physical

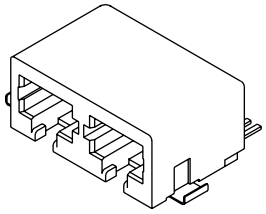
Housing: Black LCP, UL 94V-0
Contact: Brass
Plating: 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Description	Packaging	Lead-free
8	8	95540-6880	With metal locating pegs	13" Reel	Yes
		95540-6884	With plastic locating pegs	22" Reel	
		95540-6886	With plastic locating pegs	13" Reel	

Modular Jack

43841

SMT, Right Angle, Low Profile Dual Port with Flush or Outboard Fitting Nails



Features and Benefits

- Outboard fitting nails provide robust retention feature
- Enclosed top
- 100% electrically tested
- .150mm (.006") max. "nail-to-tail" coplanarity

Reference Information

Product Specification: PS-43743-0001
Packaging: Tape and reel
UL File No.: E107635
CSA File No.: LR19980
Designed In: Inches

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Durability: 500 cycles min.

Physical

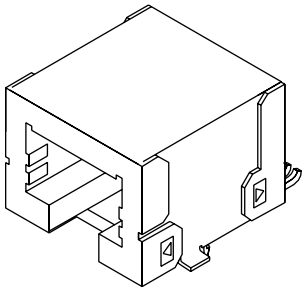
Housing: Black glass-filled nylon 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold
Solder Tails—2.54µm (100µ") min. Tin, Nickel overall

Circuits	Loaded Contacts	Order No.	Lead-free
6	4	43841-0004	Yes
	6	43841-0005	
8	8	43841-0003	

Modular Jack

95622

SMT, Right Angle Standard Profile, Shielded



Features and Benefits

- Fully-shielded connector
- Advanced EMI/RFI protection
- ISDN standard
- Industry standard footprint and height
- Automatic vacuum placement

Reference Information

Product Specification: PS-95622
Packaging: Anti-static blister reel
UL File No.: E107635
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.
Shielding Effectiveness: 20 dB min.

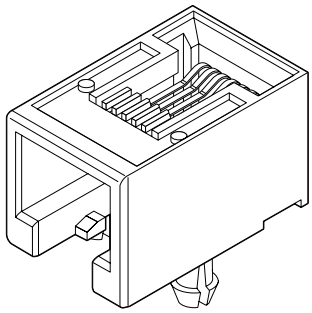
Physical

Housing: Black LCP, UL 94V-0
Contact: Brass
Plating: Post plate 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Panel Ground	Fixing Pegs	Lead-free
8	8	95622-4881	No	Yes	Yes
		95622-6882	Yes	Yes	
		95622-4883	No	No	
		95622-6884	Yes	No	

Modular Jack

95501
Right Angle
Low Profile, SMT



Features and Benefits
- Very low profile—about 3/4 that of industry standard
- Automatic placement possible
- Foot pattern identical to industry standard
- High reliability, square contact
- Surface Mount Compatible

Reference Information
Product Specification: PS-95001
Packaging: Tube
UL File No.: E107635
Mates With: FCC 68 plugs
Designed In: Millimeters

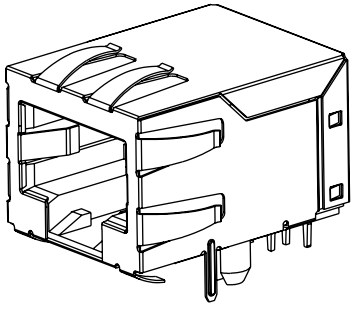
Electrical
Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.

Physical
Housing: Black LCP, UL 94V-0
Contact: Brass
Plating: Post plate 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Key	Lead-free
4	4	95501-6449	No	Yes
6	4	95501-6649	No	
6	6	95501-6669	No	
8	8	95501-6889	No	
8	8	95501-6890	Yes	

Modular Jack

43202
Right Angle, Low Profile
Shielded and Unshielded Versions



Features and Benefits
- Ultra low profile
- Enhanced panel grounding tabs on shielded RJ-45 configuration
- Enclosed top
- 100% tested for hi-pot and continuity

Reference Information
Product Specification: PS-43202-001
Packaging: Tray
UL File No.: E107635
CSA File No.: LR19980
Use with: FCC 68 Plugs
Designed in: Inches

Electrical
Voltage: 125V
Current: 1.5A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical
Durability: 500 cycles min.

Physical
Housing: Black glass-filled nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold
Solder Tails—2.54µm (100µ") min. Tin, Nickel overall

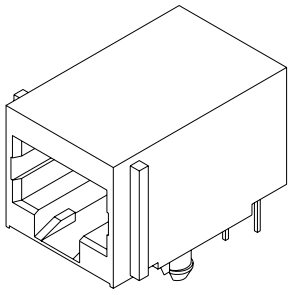
Circuits	Loaded Contacts	Shield Panel Ground Tab Option	Order No.			Lead-free
			Unshielded	Shielded		
				Front Position PCB Ground Tab	Rear Position PCB Ground Tab	
4	4		43202-4101			Yes
6	4		43202-6104			
	6		43202-6101			
8	8		43202-8104			
		All Panel Ground Tabs		43202-8919	43202-8927	
		Offset Panel Ground Tabs		43202-8918	43202-8926	
		Top Panel Ground Tabs		43202-8917	43202-8925	
		No Panel Ground Tabs		43202-8916	43202-8924	
	10		43202-8101			
		All Panel Ground Tabs		43202-8903	43202-8911	
		Offset Panel Ground Tabs		43202-8902	43202-8910	
		Top Panel Ground Tabs		43202-8901	43202-8909	
		No Panel Ground Tabs		43202-8900	43202-8908	

Note: Visit www.molex.com for additional shield panel ground tab options

Modular Jack

43249

Right Angle, Low Profile
Shielded and Unshielded Versions



Features and Benefits

- RJ-11 and RJ-45 available
- Optional full shield for RJ-45
- Option of flush or flangeless mount
- Select Gold plating, 50µ"
- 100% tested for hi-pot and continuity
- Meets UL 1863 Sec. 8 Electrical Probe and UL 1863 Sec. 20 Child Finger Test

Reference Information

Product Specification: PSX-43249
Packaging: Anti-static trays
UL File No.: E107635
CSA File No.: LR19980
Mates With: FCC 68 plugs
Designed In: Inches

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Durability: 500 cycles min.

Physical

Housing: Black glass-filled nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold;
Solder Tails—2.54µm (100µ") min. Tin,
Nickel overall

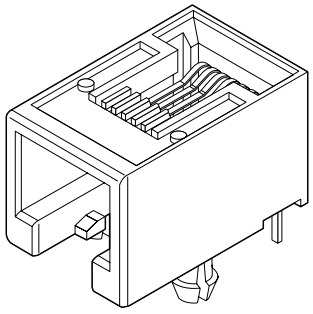
Circuits	Loaded Contacts	Shield Panel Ground Tab Options	Order No.				Lead-free
			Unshielded Flush Mount	Unshielded Flangeless	Front Position PCB Grounding Tabs	Rear Position PCB Grounding Tabs	
6	4	None	43249-6004	43249-6104			Yes
	6		43249-6001	43249-6101			
8	6	None	43249-8010	43249-8116			
	8	None	43249-8004	43249-8104			
		All panel ground tabs			43249-8919	43249-8927	
		Offset panel ground tabs			43249-8918	43249-8926	
	8	Top panel ground tabs			43249-8917	43249-8925	
		No panel ground tabs			43249-8916	43249-8924	
8	10	None	43249-8001	43249-8101			
		All panel ground tabs			43249-8903	43249-8911	
		Offset panel ground tabs			43249-8902	43249-8910	
		Top panel ground tabs			43249-8901	43249-8909	
		No panel ground tabs			43249-8900	43249-8908	

Note: Visit www.molex.com for alternative circuit sizes, keying options and shield options.

Modular Jack

95501

Right Angle
Low Profile



Features and Benefits

- Very low profile—about 3/4 that of industry standard
- Automatic placement possible
- Foot pattern identical to industry standard
- High reliability, square contact

Reference Information

Product Specification: PS-95501-E
Packaging: Tray
UL File No.: E107635
CSA File No.: 89083
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.

Physical

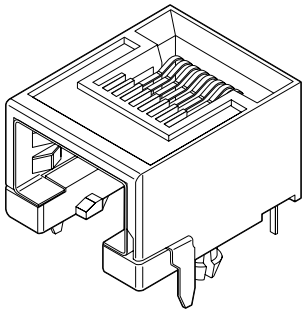
Housing: Black LCP, UL 94V-0
Contact: Brass
Plating: Post plate 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Key	Lead-free
4	4	95501-2441	No	Yes
6	4	95501-2641	No	
6	6	95501-2661	No	
8	8	95501-2881	No	
8	8	95501-2882	Yes	

Modular Jack

95540

Right Angle
Low Profile, Internal Shield



Features and Benefits
- High reliability, square contact
- EMI/RFI protection
- ISDN standard

Reference Information
Product Specification: PS-95540
Packaging: Tray
UL File No.: E107635
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical
Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.
Shielding Effectiveness: 20 dB min.

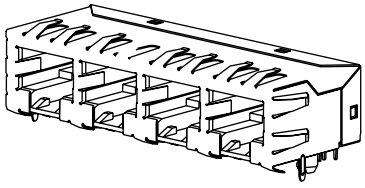
Physical
Housing: Black LCP, UL 94V-0
Contact: Brass
Plating: .52µm (50 to 60µ") Gold in contact area, 1.90mm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	High Temperature	Lead-free
8	8	95040-2881	No	Yes

Modular Jack

43223

Ganged, Right Angle
Low Profile, Shielded and Unshielded Versions



Features and Benefits
- 2 to 8 port (except 7) RJ-11 and RJ-45
- Optional shielding on RJ-45 ganged jacks
- Option of flush or flangeless mount
- Select Gold plating, 50µ"
- 100% tested for hi-pot and continuity

Reference Information
Product Specification: PS-43223-001
Packaging: Tray
UL File No.: E107635
CSA File No.: LR19980
Mates With: FCC 68 plugs
Designed In: Inches

Electrical
Voltage: 125V
Current: 1.5A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical
Durability: 500 cycles min.

Physical
Housing: Black glass-filled nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact area—1.27µm (50µ") min. Gold; Solder Tails—2.54µm (100µ") min. Tin, Nickel overall

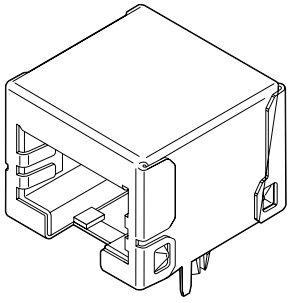
Circuits	Loaded Contacts	No. of Ports	Order No.			Lead-free
			Unshielded		Shielded	
			Flush Mount	Flangeless	Flangeless	
6	4	2	43223-6022	43223-6122		Yes
		4	43223-6028	43223-6128		
		6	43223-6034	43223-6134		
		8	43223-6040	43223-6140		
	6	2	43223-6001	43223-6101		
		4	43223-6007	43223-6107		
		6	43223-6013	43223-6113		
		8	43223-6019	43223-6119		
8	8	2	43223-8022	43223-8122		
					43223-8128	
		4	43223-8028	43223-8140		
					43223-8146	
		6	43223-8034	43223-8158		
					43223-8164	
		8	43223-8040	43223-8176		
					43223-8182	

Note: Snap-fit peg order numbers shown above. Press-fit peg order numbers also available.
Visit www.molex.com for alternative grounding tab option order numbers, circuit sizes and port sizes.

Modular Jack

95622

Right Angle
Standard Profile, Shielded



Features and Benefits
- Fully-shielded connector
- Advanced EMI/RFI protection
- ISDN standard
- Industry standard footprint and height

Reference Information
Product Specification: PS-95622
Packaging: Tray
UL File No.: E107635
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical
Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.
Shielding Effectiveness: 20 dB min.

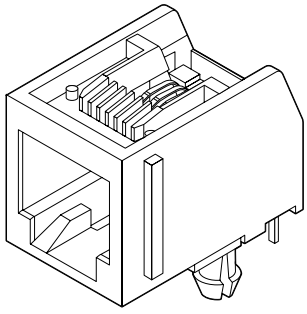
Physical
Housing: Black LCP
Contact: Brass
Plating: Post plate 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Panel Ground	Lead-free
8	8	95622-3882	Yes	Yes
8	8	95622-3881	No	

Modular Jack

95009

Right Angle, Standard Profile
Flush Mount with Mounting Rib



Features and Benefits
- Industry-compatible footprints
- Flush mount
- Split snap-fit retention pegs
- High reliability, square contacts

Reference Information
Product Specification: PS-95009-E
Packaging: Tray
UL File No.: E107635
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical
Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.

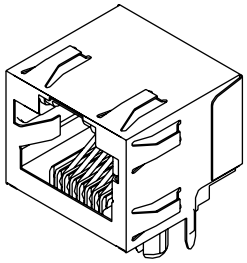
Physical
Housing: Black polyester, UL 94V-0
Contact: Brass
Plating: Post plate 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Lead-free
4	4	95009-2441	Yes
6	4	95009-2641	
6	6	95009-2661	
8	8	95009-2881	

Modular Jack

43860

Right Angle, Low Profile, Inverted Shielded and Unshielded Versions



Features and Benefits

- Plug latch on top
- Shortened leads with bottom contacts
- Shielding meets IEC 950, UL 1863 and CSA 233
- Enhanced panel grounding tabs on shield
- 100% tested for hi-pot and continuity

Reference Information

Product Specification: PS-43860-003
Packaging:
Unshielded—Tube
Shielded—Tray
UL File No.: E107635
CSA File No.: LR19980
Mates With: FCC 68 plugs
Designed In: Inches

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Durability: 500 cycles min.

Physical

Housing: Black glass-filled nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold;
Solder Tails—2.54µm (100µ") min. Tin,
Nickel overall

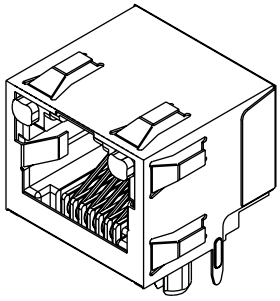
Circuits	Loaded Contacts	Order No.			Lead-free
		Unshielded	Shielded		
			With All Panel Grounding Tabs	With Offset Panel Grounding Tabs	
6	4	43860-0003	43860-0006	43860-0015	Yes
	6	43860-0002	43860-0005	43860-0014	
8	8	43860-0001	43860-0004	43860-0013	

Note: Visit www.molex.com for additional panel grounding tab options

Modular Jack

43860

Right Angle, Low Profile, Inverted Shielded and Unshielded Versions With Lightpipes



Features and Benefits

- Plug latch on top
- Shortened leads with bottom contacts
- Industry compatible
- Lower electrical noise than LED offerings
- 34% fewer leads than LED offerings
- Enhanced grounding tabs on shield

Reference Information

Product Specification: PS-43860-003
Packaging:
Unshielded—Tube
Shielded—Tray
UL File No.: E107635
CSA File No.: LR19980
Designed in: Inches

Electrical

Electrical Voltage: 125V
Current: 1.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Durability: 500 cycles

Physical

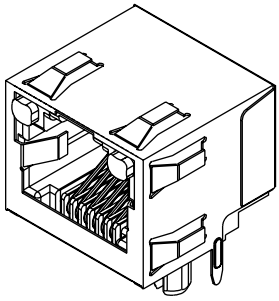
Housing: Black glass-filled nylon, UL 94V-0
Plating: Contact Area—1.27µm (50µ") min. Gold
Solder Tails—2.54µm (100µ") min. Tin,
Nickel overall

Circuits	Loaded Contacts	Order No.			Lead-free
		Unshielded	Shielded		
			With All Panel Grounding Tabs	With Offset Panel Grounding Tabs	
6	4	43860-0009	43860-0012	43860-0018	Yes
6	6	43860-0008	43860-0011	43860-0017	
8	8	43860-0007	43860-0010	43860-0016	

Modular Jack

43860

Right Angle, Low Profile Inverted, Shielded Version With High Temperature* Lightpipes



Features and Benefits

- Plug latch on top
- Lower electrical noise than LED offerings
- 34% fewer leads than LED offerings
- Enhanced grounding tabs on shield

Reference Information

Product Specification: PS-43860-003
Packaging: Tray
UL File No.: E107635
CSA File No.: LR19980
Designed in: Inches

Electrical

Electrical Voltage: 125V
Current: 1.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Durability: 500 cycles

Physical

Housing: Black glass-filled nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold
Solder Tails—2.54µm (100µ") min. Tin, Nickel overall

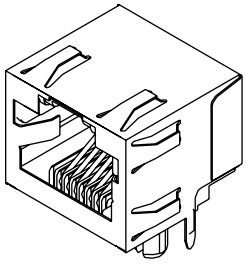
Circuits	Loaded Contacts	Order No.		Lead-free
		With All Panel Grounding Tabs	With Offset Panel Grounding Tabs	
6	4	43860-1012	43860-1018	Yes
	6	43860-1011	43860-1017	
8	8	43860-1010	43860-1016	

*Reflow capable up to 205˚C for 30 seconds max.

Modular Jack

44620

Right Angle, RJ-45 Low Profile, Inverted Shielded And Unshielded Versions With RJ-11 Keepout Feature



Features and Benefits

- Prevents mismating of RJ-11 plugs into RJ-45 jack
- Plug latch on top
- Shield with enhanced panel grounding tabs
- 100% tested for hi-pot and continuity
- Shortened leads with bottom contacts

Reference Information

Product Specification: PS-43860-0003
Packaging:
Unshielded—Tube
Shielded—Tray
UL File No.: E107635
CSA File No.: LR19980
Mates with: FCC 68 Plugs
Designed in: Inches

Electrical

Voltage: 125V
Current: 1.5A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Durability: 500 cycles

Physical

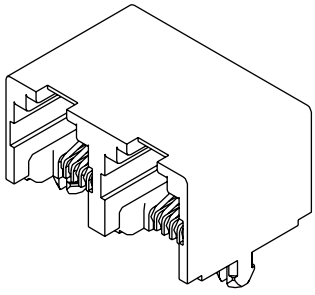
Housing: Black glass-filled nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold
Solder Tail—2.54µm (100µ") min. Tin, Nickel overall

Circuits	Loaded Contacts	Order Number			Lead-free
		Unshielded	Shielded		
			With All Panel Grounding Tabs	With Offset Panel Grounding Tabs	
8	8	44620-0001	44620-0002	44620-0003	Yes

Modular Jack

43814

Right Angle, Low Profile Inverted, Dual Port



Features and Benefits

- Plug latch on top
- Shortened leads with bottom contacts
- 100% tested for hi-pot and continuity
- Packaged in tubes
- Side-by-side stackable

Reference Information

Product Specification: PS-43860-003
Packaging: Tube
UL File No.: E107635
CSA File No.: LR19980
Mates With: FCC 68 plugs
Designed In: Inches

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Durability: 500 cycles min.

Physical

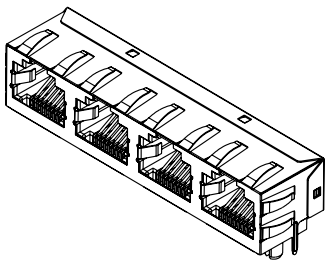
Housing: Black glass-filled nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold;
Solder Tails—2.54µm (100µ") min. Tin,
Nickel overall

Circuits	Loaded Contacts	Order No.	Lead-free
6	4	43814-6421	Yes
	6	43814-6621	

Modular Jack

44248

Ganged, Right Angle Low Profile Inverted Shielded and Unshielded Versions



Features and Benefits

- Plug latch on top
- Shortened leads with bottom contacts
- Industry compatible
- Enhanced panel grounding tabs on shield
- Shielding meets IEC 950, UL 1863 and CSA 233

Reference Information

Product Specification: PS-43860-003
Packaging: Tray
UL File No.: E107635
CSA File No.: LR19980
Designed In: Inches

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Durability: 500 cycles

Physical

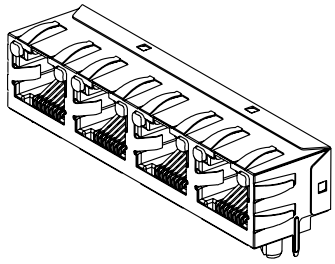
Housing: Black glass-filled Polyester, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold
Solder Tails—2.54µm (100µ") min. Tin,
Nickel overall

Circuits	Loaded Contacts	No. of Ports	Order No.				Lead-free
			Unshielded		Shielded		
			Press Fit	Snap Fit	Press Fit	Snap Fit	
6	4	2	44248-0074	44248-0066	44248-0102	44248-0094	Yes
	6		44248-0073	44248-0065	44248-0101	44248-0093	
8	8	2	44248-0061	44248-0057	44248-0089	44248-0085	
		4	44248-0062	44248-0058	44248-0090	44248-0086	

Modular Jack

44248

Ganged, Right Angle
Low Profile Inverted
Shielded and Unshielded Versions
With Lightpipes



Features and Benefits
- Plug latch on top
- Industry compatible
- Lower electrical noise than LED offerings
- 34% fewer leads than LED offerings
- Enhanced panel grounding tabs on shield

Reference Information
Product Specification: PS-43860-003
Packaging: Tray
UL File No.: E107635
CSA File No.: LR19980
Designed In: Inches

Electrical
Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical
Durability: 500 cycles

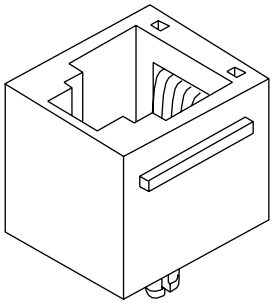
Physical
Housing: Black glass-filled Polyester, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold
Solder Tails—2.54µm (100µ") min. Tin, Nickel overall

Circuits	Loaded Contacts	No. of Ports	Order No.				Lead-free
			Unshielded		Shielded		
			Press Fit	Snap Fit	Press Fit	Snap Fit	
6	4	2	44248-0018	44248-0010	44248-0046	44248-0038	Yes
	6		44248-0017	44248-0009	44248-0045	44248-0037	
8	8	2	44248-0005	44248-0001	44248-0033	44248-0029	
		4	44248-0006	44248-0002	44248-0034	44248-0030	

Modular Jack

85506

High-Speed, Vertical
Standard Profile



Features and Benefits
- Performance better than category 5
- Industry compatible
- Automatic placement on PC boards possible
- Foot patterns identical to industry standard jacks
- High reliability, square contact

Reference Information
Product Specification: PS-95003-E
Packaging: Tray
UL File No.: E107635
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical
Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.

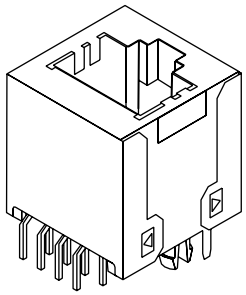
Physical
Housing: Black LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Post plate 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Ribs	Lead-free
8	8	85506-0001	Yes	Yes
8	8	85506-0002	No	

Modular Jack

85508

High-Speed, Vertical Standard Profile, Shielded



Features and Benefits

- Performance better than category 5
- Fully shielded connector
- Advanced EMI/RFI protection
- ISDN standard
- Industry standard footprint and height

Reference Information

Product Specification: PS-85505
Packaging: Tray
UL File No.: E107635
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.
Shielding Effectiveness: 20 dB min.

Physical

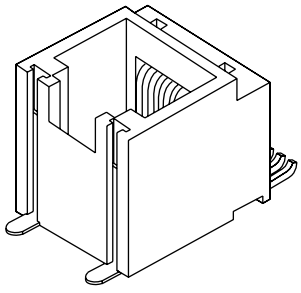
Housing: Black LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Post plate 1.27 to 1.52µm (50 to 60m") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Lead-free
8	8	85508-0001	Yes

Modular Jack

85510

SMT, Vertical, Standard Profile With Small Panel Cutout



Features and Benefits

- Automatic vacuum placement possible
- Foot pattern identical to industry standard
- High reliability, square contact
- 0.10mm coplanarity

Reference Information

Product Specification: PS-95503
Packaging: Anti-static blister reel, 13 and 22"
UL File No.: E107635
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Insulation Resistance: 500 Megohms min.

Physical

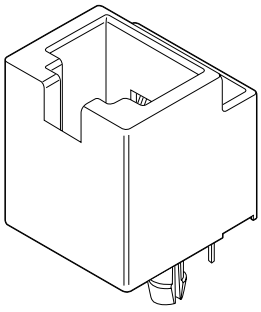
Housing: Black LCP, UL 94V-0
Contact: Brass
Plating: Post plate 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.		Lead-free
		Blister Reel 22"	Blister Reel 13"	
4	4	85510-5025	85510-5017	Yes
6	4	85510-5026	85510-5018	
6	6	85510-5027	85510-5019	
8	8	85510-5028	85510-5020	

Modular Jack

95503

SMT, Vertical, Standard Profile With Small Panel Cutout



Features and Benefits

- Industry compatible
- Automatic placement on PC boards possible
- Foot patterns identical to industry standard jacks
- High reliability, square contact
- Low profile 12.70mm (0.5")

Reference Information

Product Specification: PS-95503-E
Packaging: Tube
UL File No.: E107635
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.

Physical

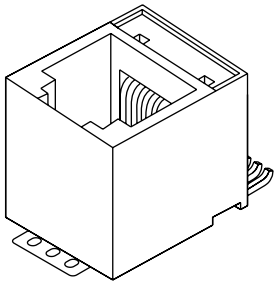
Housing: Black LCP, UL 94V-0
Contact: Brass
Plating: Post plate 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Low Profile	Lead-free
4	4	95503-6451	No	Yes
6	4	95503-6651	No	
6	6	95503-6671	No	
8	8	95503-6891	No	
8	8	95503-6894	Yes	

Modular Jack

85513

SMT, Vertical Low Profile



Features and Benefits

- Automatic vacuum placement possible
- Foot pattern identical to industry standard
- High reliability, square contact
- 0.10mm (.004") coplanarity

Reference Information

Product Specification: PS-95503
Packaging: Antistatic blister tape on 13, 15 or 22" reels
UL File No.: E107635
Mates With: FCC68 plugs
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.

Physical

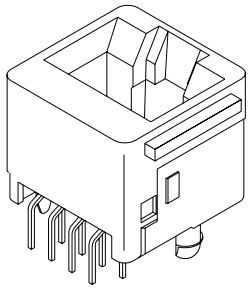
Housing: Black LCP, UL 94V-0
Contact: Brass
Plating:
Contact Area—Post plate 1.27 to 1.52m (50 to 60") Gold
Solder Tail Area—1.90m (75") min. pure Tin
Underplating—Nickel

Circuits	Loaded Contacts	Order No.			Lead-free
		13" Reel	15" Reel	22" Reel	
8	8	85513-5013	85513-5001	85513-5009	Yes
6	6	85513-5014	85513-5002	85513-5010	
6	4	85513-5015	85513-5003	85513-5011	
4	4	85513-5016	85513-5004	85513-5012	

Modular Jack

42878

Vertical, Low Profile For .062 and .125" PCB



Features and Benefits

- Option of flush or flangeless mount
- Polarization option available for RJ-45
- Meets UL 1863 Section 8 Electrical Probe and UL 1863 Section 20 Childs Finger Test
- Contact tips guided within FCC-specified target zone—Positive alignment prevents shorting
- 100% tested for hi-pot and continuity
- .500" height is industry lowest

Reference Information

Product Specification: PS-42878
Packaging: Tray
UL File No.: E107635
CSA File No.: LR19980
Mates With: FCC 68 plugs
Designed In: Inches

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Durability: 500 cycles min.

Physical

Housing: Black glass-filled polyester, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold
Solder Tails—2.54µm (100µ") min. Tin, Nickel overall

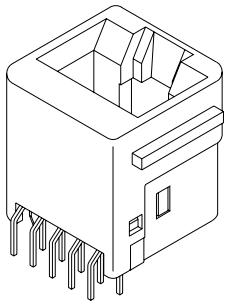
Circuits	Loaded Contacts	Order No.				Lead-free
		.062" PCB		.125" PCB		
		Flush Mount	Flangeless	Flush Mount	Flangeless	
4	4	42878-4216	42878-4218	42878-4264	42878-4266	Yes
6	4	42878-6360	42878-6362	42878-6408	42878-6410	
6	6	42878-6216	42878-6218	42878-6264	42878-6266	
8	8	42878-8408	42878-8410	42878-8504	42878-8506	

Note: Visit www.molex.com for polarization order numbers available on RJ-45 only.

Modular Jack

42410

Vertical, Standard Profile For .062 and .125" PCB



Features and Benefits

- Option of flush or flangeless mount
- Keying option available for RJ-45
- Meets UL 1863 Section 8 Electrical Probe and UL 1863 Section 20 Childs Finger Test
- Contact tips guided within FCC-specified target zone—Positive alignment prevents shorting
- 100% tested for hi-pot and continuity

Reference Information

Product Specification: PS-42410
Packaging: Tray
UL File No.: E107635
CSA File No.: LR19980
Mates With: FCC 68 plugs
Designed In: Inches

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Durability: 500 cycles min.

Physical

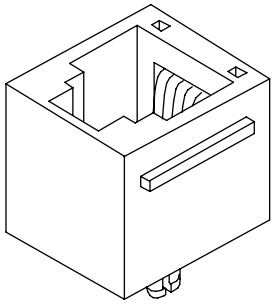
Housing: Black glass-filled polyester, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—1.27µm (50µ") min. Gold
Solder Tails—2.54µm (100µ") min. Tin, Nickel overall

Circuits	Loaded Contacts	Order No.				Lead-free
		.062" PCB		.125" PCB		
		Flush Mount	Flangeless	Flush Mount	Flangeless	
6	4	42410-6312	42410-6314	42410-6408	42410-6410	Yes
6	6	42410-6168	42410-6170	42410-6264	42410-6266	
8	8	42410-8312	42410-8314	42410-8504	42410-8506	

Modular Jack

95522

Vertical
Standard Profile



Features and Benefits
- High reliability, square contact
- Industry standard footprint and height

Reference Information
Product Specification: PS-95503-E
Packaging: Tray
UL File No.: E107635
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical
Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.

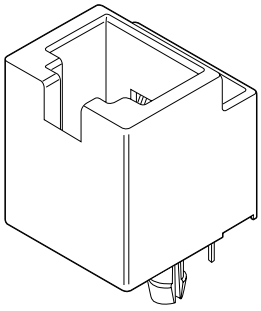
Physical
Housing: Black LCP, UL 94V-0
Contact: Brass
Plating: Post plate 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Lead-free
4	4	95522-2447	Yes
6	4	95522-2647	
6	6	95522-2667	
8	8	95522-2887	

Modular Jack

95503

Vertical, Standard Profile
With Small Panel Cutout



Features and Benefits
- Industry compatible
- Automatic placement on PC boards possible
- Foot patterns identical to industry standard jacks
- High reliability, square contact
- Low Profile 12.70mm (0.5")

Reference Information
Product Specification: PS-95503-E
Packaging: Tray
UL File No.: E107635
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical
Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.

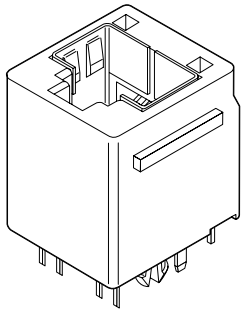
Physical
Housing: Black LCP, UL 94V-0
Contact: Brass
Plating: Post plate 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Key	Low Profile	Lead-free
4	4	95503-2441	No	No	Yes
6	4	95503-2641	No	No	
6	6	95503-2661	No	No	
8	8	95503-2881	No	No	
		95503-2882	Yes	No	
		95503-2884	No	Yes	

Modular Jack

95052

Vertical, Standard Profile Internal Shield



Features and Benefits

- High reliability, square contact
- EMI/RFI protection
- ISDN standard
- Industry standard footprint and height
- Shunt allows signal control and line check

Reference Information

Product Specification: PS-95040
Packaging: Tray
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.

Physical

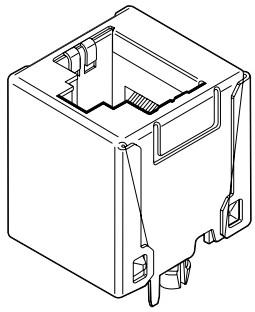
Housing: Black polyester, UL 94V-0
Contact: Phosphor Bronze
Plating: Post plate 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Lead-free
8	8	95052-2887	Yes

Modular Jack

95623

Vertical, Standard Profile Shielded



Features and Benefits

- Fully-shielded connector
- Advanced EMI/RFI protection
- ISDN standard
- Industry standard footprint and height

Reference Information

Product Specification: PS-95622
Packaging: Tray
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.
Shielding Effectiveness: 20 dB min.

Physical

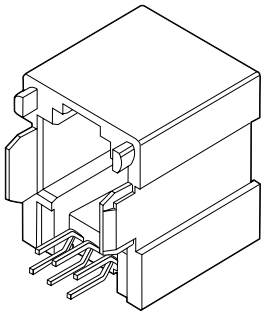
Housing: Black LCP, UL 94V-0
Contact: Brass
Plating: Post plate 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Key	Lead-free
8	8	95623-2881	No	Yes

Modular Jack

95502

Bottom Entry
Low Profile



Features and Benefits

- Mates with FCC 68 plug
- Very low profile
- Bottom entry allows space saving in PCB-design

Reference Information

Product Specification: PS-95502-E
Packaging: Tray
UL File No.: E107635
Mates With: FCC 68 plugs
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 1000V
Insulation Resistance: 500 Megohms min.

Physical

Housing: Black LCP, UL 94V-0
Contact: Brass
Plating: Post plate 1.27 to 1.52µm (50 to 60µ") Gold in contact area, 1.90µm (75µ") min. pure Tin in tail area both over Nickel overall

Circuits	Loaded Contacts	Order No.	Lead-free
4	4	95502-2443	Yes
6	4	95502-2643	
6	6	95502-2663	
8	8	95502-2883	

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MMCX Connectors
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MCX Connectors
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Edge Mount P-12

SMB Connectors
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PCB P-15

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SMA Connectors
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Post Terminals ..... P-25 to P-26
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Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

Molex Custom Product Overview



Features and Benefits

- Frequencies to 50GHz
- Special configurations, interfaces and sizes available
- Available at all volumes
- Non-magnetic versions available
- IP68 Bulkhead versions available
- Custom ganged solutions available

Molex RF/Microwave connectors include custom designs to meet the requirements of special applications. Most custom designs have standard interfaces, but they include feature(s) that result in a custom-designed product.

Some custom designs include unique mating interfaces. Special application custom connectors can be designed for a user's particular needs.

Contact either our US or Taiwan location to discuss your custom-designed product requirements with a Molex application engineer.

Molex RF Cable Assemblies



Features and Benefits

- 100% HiPot and Continuity
- Wide range of standard and custom connector interfaces
- Wide range of cable types
- 50 and 75 ohm designs
- Ganged and bundled solutions available
- Indoor and outdoor cable assemblies
- Customer specific testing available
- Standard and custom solutions

Molex RF offers cable assemblies ranging from standard traditional configurations to custom, ganged, and bundled customer specific cable assembly solutions.

With our large connector offering and responsive custom connector solutions, Molex RF has the solution for your cable assembly requirements.

Molex RF connector designs can accommodate standard RG braided cables, micro coax, semi-rigid cable, vendor specific custom cables, LMR types, and hand conformable cables.

MMCX Connectors Overview

Molex MMCX connectors are a microminiature connector series designed for applications where densely-populated electronic packages demand size and weight limitations while maintaining good RF characteristics. MMCX connectors are designed to function in applications operating to 6 GHz and offer similar electrical performance to much larger coaxial connector types. Mechanical stability is maintained via a snap fit interface that uses no slotting in the outer conductor. Typical applications include wireless/PCS devices, telecommunications, GPS receivers and consumer electronics.

Features and Benefits

- Micro miniature
- Snap-on coupling
- DC to 6 GHz

Engineering

Nominal Impedance: 50 ohms
Frequency Range: DC-6 GHz

Mechanical

Force to Engage: Axial Force 15N (3.4 lb) max.
Force to Disengage: Axial Force 6N to 15N (1.4 to 3.4 lb)
Connector Durability: 500 Cycles
Center Contact Retention: Axial Force—10N (2.3 lb)
Cable Retention: Axial Force—32.7N (7.3 lb)

Engineering

Nominal Impedance	Frequency Range
50 ohms	DC-6 GHz

Mechanical

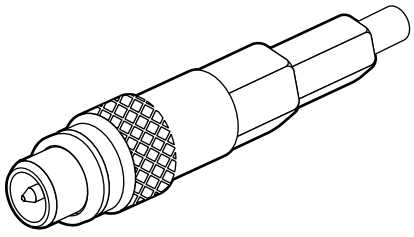
Force to Engage - Axial Force	Force to Disengage - Axial Force	Connector Durability	Center Contact Retention - Axial Force	Cable Retention Axial Force
25N (5.6 lb) max.	8N to 20N (1.8 to 4.5 lb)	500 cycles	10N (2.25 lb)	49.8N (11.2 lb)

Electrical

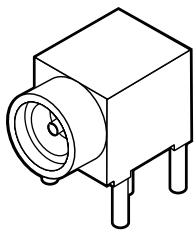
Volatage Rating: Sea Level	Insulation Resistance	Dielectric Withstanding Voltage	Contact Resistance		Voltage Standing Wave Ratio		RF Leakage	
			Center Contact Initial	Outer Contact	Cable RG178	Edge Mount	Cable	Edge Mount
170 Vrms	1000 Megohms	500 Vrms	5.0 milliohms	2.5 milliohms	1.12 at 6 GHz 1.08 at 2.5 GHz 1.04 at 1 GHz	1.12 at 6 GHz 1.10 at 2.5 GHz 1.05 at 1 GHz	60 dB	60 dB

Environmental

Vibration: MIL-STD-202, Method 204	Thermal Shock: MIL-STD-202, Method 107	Corrosion (Salt Spray): MIL-STD-202, Method 101	Moisture Resistance: MIL-STD-202, Method 106
Test Condition C	Test Condition F	Test Condition B	5 min after removal 200 Megohms



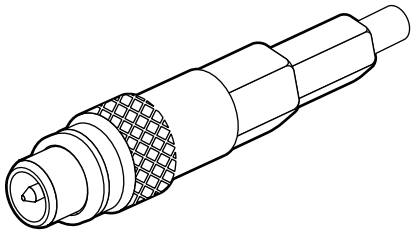
Straight Solder/Crimp Plug



Right Angle PCB Jack Receptacle

MMCX Connectors
Plug
Straight
Crimp/Crimp
Cable

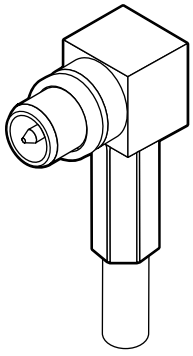
- Center contact crimp or solder termination
- Crimp braid termination
- Packaging: Individual



Order No.	Cable Group	Assembly Instructions	Lead-free
73415-0971	RG178, 196	AS-89678-0900	Yes
73415-1251	RG188, 174, 316	AS-89678-2700	
73415-2101	.086 semi-rigid	AS-89678-2800	
73415-2111	.047 semi-rigid	AS-89678-2900	
73415-2131	RD174, 188, 316	AS-89678-3000	
73415-3400	1.13mm	AS-73597-0140	

MMCX Connectors
Plug
Right Angle
Solder/Crimp
Cable

- Center contact solder termination
- Crimp braid termination
- Packaging: Individual

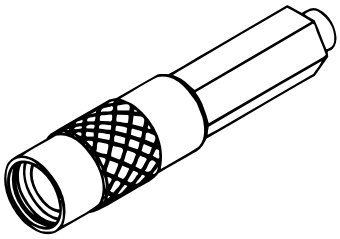


Order No.	Cable Group	Assembly Instructions	Lead-free
73415-0951	RG178, 196	AS-89678-0700	Yes
73415-1121	RG174, 188, 316 single shielded	AS-89678-1700	
73415-2141	RD174, 188, 316 double shielded	AS-89678-3100	
73415-2151	.047 semi-rigid	AS-89678-3200	
73415-2161	.086 semi-rigid	AS-89678-3300	
73415-2261	1.13mm	AS-73597-0160	

MMCX Microminiature Connectors

Straight Crimp Jack

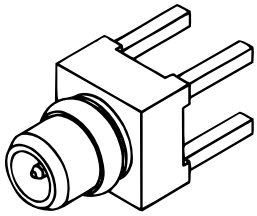
- Packaging: Individual
- Small size



Order No.	Cable Group	Assembly Instructions	Body	Plating
73415-3410	1.13mm	AS-73597-0130	Brass	Gold
73415-3210	RG178, 196	AS-89678-6900		

MMCX Connectors Vertical PCB Plug

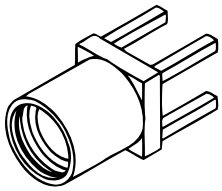
- Packaging: Individual
- Small size



Order No.	Body	Plating
73415-2121	Brass	Gold

MMCX Connectors Vertical PCB Jack Receptacle

- Packaging: Individual
- Small size

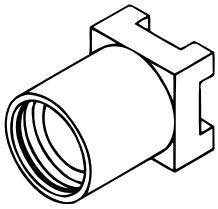


Order No.	Body	Plating
73415-1471	Brass	Gold

MMCX Microminiature Connectors

Surface Mount Jack Receptacle

- Packaging: Individual or tape and reel
- Small size

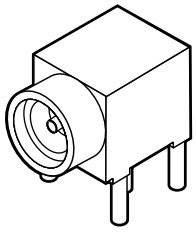


Order No.	Body	Plating
73415-2061	Brass	Gold
73415-2063*		

* Tape and reel

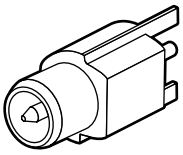
MMCX Connectors Jack Receptacle Right Angle PCB

- Body: Brass
- Overall Plating: Gold
- Packaging: Individual
- One-piece body



Order No.	Lead-free
73415-1001	Yes

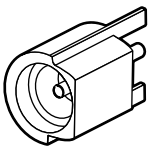
MMCX Connectors
Plug
Edge Mount



- Body: Brass
- Overall Plating: Gold
- Packaging: Individual

Order No.	Lead-free
73415-0991	Yes

MMCX Connectors
Jack Receptacle
Edge Mount



- Body: Brass
- Overall Plating: Gold
- Packaging: Individual

Order No.	Lead-free
73415-0963	Yes

MCX Connectors Overview

Molex MCX connectors are a subminiature snap-on connector offering a stable and durable connection while allowing electronic assemblies to be more densely packaged than other subminiature series. MCX connectors are approximately 30% smaller than SMB type connectors but use the same proven internal interconnect arrangement with respect to the dielectric and center contact. The MCX series provides good electrical performance to 6 GHz and is used in telecommunication systems as well as wireless and GPS applications.

Features and Benefits

- Subminiature
- Snap-on coupling
- DC to 6 GHz
- 30% smaller than SMB

Engineering

Nominal Impedance: 50 ohms
Frequency Range: DC-6 GHz
Voltage Rating: Sea Level—335 Vrms

Mechanical

Force to Engage: Axial Force 25N (5.6 lb) max.
Force to Disengage: Axial Force 8N to 20N (1.8 to 4.5 lb)
Connector Durability: 500 Cycles
Center Contact Retention: Axial Force—10N (2.25 lb)
Cable Retention: Axial Force—49.8N (11.2 lb)

Engineering

Nominal Impedance	Frequency Range	Voltage Rating - Sea Level
50 ohms	DC-6 GHz	335 Vrms

Mechanical

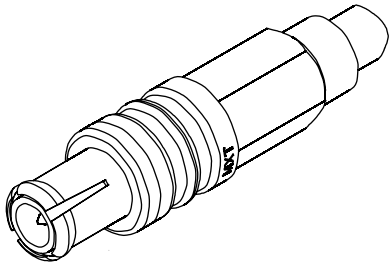
Force to Engage - Axial Force	Force to Disengage - Axial Force	Connector Durability	Center Contact Retention - Axial Force	Cable Retention Axial Force
25N (5.6 lb) max.	8N to 20N (1.8 to 4.5 lb)	500 cycles	10N (2.25 lb)	49.8N (11.2 lb)

Electrical

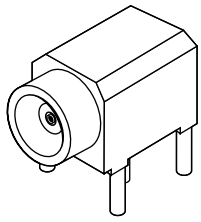
Volatage Rating: Sea Level	Insulation Resistance	Dielectric Withstanding Voltage	Contact Resistance				Voltage Standing Wave Ratio	
			Center Contact Initial	Outer Contact After Environment	Outer Contact	Outer Cable Conductor to Body	Straight	Right Angle
335 vrms	10,000 Megohms min.	1000 Vrms min.	5.0 milliohms max.	15 milliohms max.	2.5 milliohms max.	7.5 milliohms max.	1.30 max. DC-2 GHz 1.35 max. 2-6 GHz	1.50 DC-2 GHz 1.65 max. 2 to 6 GHz

Environmental

Vibration: MIL-STD-202, Method 204	Thermal Shock: MIL-STD-202, Method 107	Corrosion (Salt Spray): MIL-STD-202, Method 101	Mechanical Shock: MIL-STD-202, Method 213	Moisture Resistance: MIL-STD-202, Method 106
Test Condition A	Test Condition A	Test Condition B	Test Condition A	5 minutes after removal, 200 Megohms



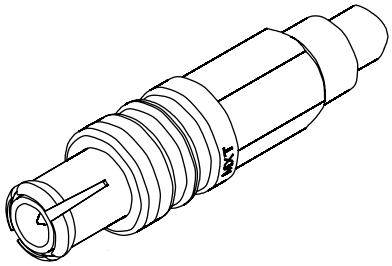
Straight Solder/Crimp Plug



Right Angle PCB Jack Receptacle

MCX Connectors
Plug
Straight
Solder/Crimp

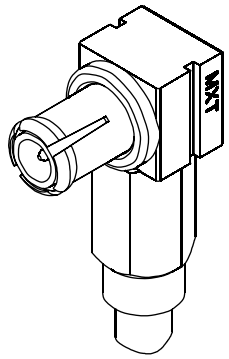
- Overall Plating: Nickel
- Center contact solder termination
- Packaging: Tray



Order No.	Cable Group	Assembly Instructions	Plating	Lead-free
73366-0020	RG174, 179, 187, 188, 316	AS-73392-006	Nickel	Yes
73415-2240	RD316	AS-89678-2600	Gold	
73415-2370	.086 SR	AS-89678-8550		

MCX Connectors
Plug
Right Angle
Solder/Crimp

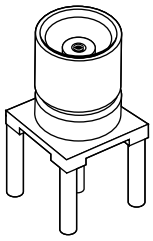
- Center contact solder termination
- Packaging: Tray



Order No.	Cable Group	Assembly Instructions	Body	Plating	Lead-free
73366-0010	RG174, 179, 187, 188, 316	AS-73392-005	Diecast	Nickel	Yes
73415-1050	RG178, 196	AS-89678-1000			
73415-2230	RD316	AS-89678-2500	Brass	Gold	
73415-2381	.086 SR	AS-89678-3500			
73415-2460	.141 SR	AS-89678-4200			

MCX Connectors Jack Receptacle Vertical PCB

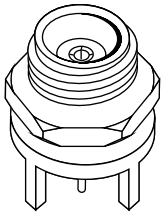
- Overall Plating: Nickel or Gold
- Body: Brass
- Packaging: Tray



Order No.	Body	Plating	Lead-free
73366-0000	Diecast	Nickel	Yes
73366-0060	1-piece Brass		
73366-0061		Gold	
73366-4220			

MCX Connectors Jack Receptacle Vertical Bulkhead Mount PCB

- Body: Brass
- Overall Plating: Gold

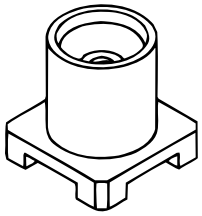


Order No.	Lead-free
73415-1040	Yes

MCX 50 Ohm Subminiature Snap-on Connectors

Vertical Surface Mount Jack Receptacle

- Packaging: Tray or tape and reel



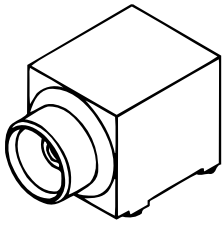
Order No.	Body	Plating
73415-1690	Brass	Nickel
73415-1691		Gold
73415-1692*		

* Tape and reel

MCX 50 Ohm Subminiature Snap-on Connectors

Right Angle Surface Mount Jack Receptacle

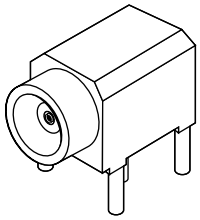
- Packaging: Tray



Order No.	Body	Plating
73415-1100	Brass/Zinc Alloy	Nickel/Tin

MCX Connectors Jack Receptacle Right Angle PCB

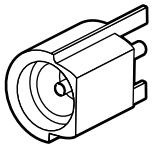
- Body: Brass
- Overall Plating: Nickel



Order No.	Lead-free
73366-0030	Yes

MCX Connectors Jack Receptacle Edge Mount

- Body: Brass
- Overall Plating: Gold
- Tape and reel packaging



Order No.	Lead-free
73415-1060	Yes

SMB Connectors

Molex SMB connectors are a subminiature connector series designed for applications operating to 4 GHz. This series includes a snap-on interface that is controlled by industry standard specifications and is easy to connect and disconnect. Mechanical stability is provided by the SMB interface, and its relatively small size allows it to be used in applications where space is limited. Each 50 ohm product has a mini 75 ohm SMB counterpart which has the same external envelope as the 50 ohm product. Applications for 50 ohm product include telecommunications equipment, instrumentation and commercial broadcast equipment. The mini 75 ohm SMB products are typically used in data and video transmission equipment.

Features and Benefits

- Subminiature
- Snap-on coupling
- DC to 4 GHz
- 50 and 75 ohms

Engineering

Nominal Impedance	Frequency Range	Voltage Rating - Sea Level	Temperature
50 ohms	DC-4 GHz	500 Vrms	-65 to +165˚C
75 ohms			

Mechanical

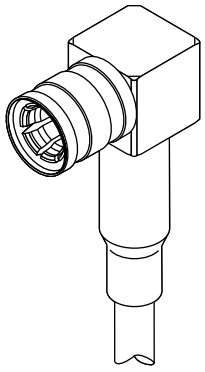
Nominal Impedance	Force to Engage - Axial Force	Force to Disengage - Axial Force	Durability	Center Contact Retention - Axial Force	Cable Retention			
					Crimp		Non-Crimp	
					Cable OD	Minimum Axial Force	Cable OD	Minimal Axial Force
50 ohms	62.2N (14 lb) max.	8.9N to 62.2N (2 to 14 lb)	500 cycles	17.8N (4 lb) min.	<.154 (3.93) .155 (3.94) to .188 (4.80) .189 (4.81) to .229 (5.82) .230 (5.83) to .249 (6.33) >.250 (6.34)	22N (5 lb) 44N (10 lb) 88.9N (20 lb) 133.3N (30 lb) 177.8N (40 lb)		177.8N (40 lb)
75 ohms								

Electrical

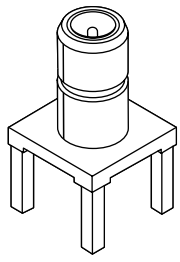
Nominal Impedance	Insulation Resistance	Dielectric Withstanding Voltage	Contact Resistance		Voltage Standing Wave Ratio
			Center Contact Initial	Outer Contact	
50 ohms	1000 Megohms	1000 Vrms min.	6.0 milliohms max.	4.0 milliohms max.	1.30 + .001 fGHz per mated pair from DC to 4GHz
75 ohms				3.0 milliohms max.	1.10:1 per mated pair from DC to 1 GHz

Environmental

Nominal Impedance	Vibration: MIL-STD-202, Method 204	Thermal Shock: MIL-STD-202, Method 107	Corrosion (Salt Spray): MIL-STD-202, Method 101	Mechanical Shock: MIL-STD-202, Method 213	Moisture Resistance: MIL-STD-202, Method 106
50 ohms	Test Condition B	Test Condition A	Test Condition B	Test Condition A	200 Megohms
75 ohms					



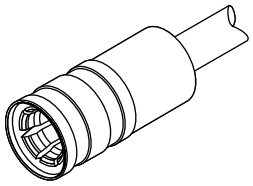
Right Angle Solder/Crimp Plug



Vertical PCB Jack Receptacle

SMB Connectors
Plug
Solder/Crimp

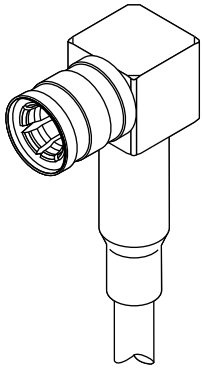
- Overall Plating: Gold
- Packaging: Individual
- Center contact termination: See table



Order No.	Cable Group	Center Contact Termination	Impedance	Assembly Instructions	Body	Lead-free
73100-0248	RG174, 187, 188, 316	Solder	50 ohms	AS-73597-0054	Brass	Yes
73100-0255	RG179	Solder or Crimp	75 ohms Mini-SMB	AS-73597-0071		
73404-1861	RG179	Solder	75 ohms air-dielectric	AS-89511-0200		

SMB Connectors
Plug
Right Angle
Solder/Crimp

- Overall Plating: Gold
- Center contact solder termination
- Crimp braid termination
- Packaging: Individual

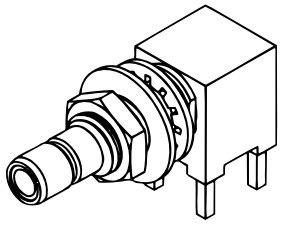


Order No.	Cable Group	Impedance	Assembly Instructions	Lead-free
73100-0257	RG174, 188, 316	50 ohms	AS-73597-0063	Yes
73100-0256	RG179	75 ohms Mini-SMB	AS-73597-0047	
73404-1730	RG178	50 ohms	AS-89678-8540	
73404-0430	RG179	75 ohms air-dielectric	AS-89678-8540	

SMB 50 Ohm Subminiature Connectors

Right Angle Bulkhead PCB Jack Receptacle

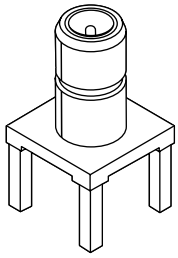
- PCB standoffs
- Packaging: Tray



Order No.	Body	Plating
73100-0097	Brass	Gold

SMB Connectors Jack Receptacle Vertical PCB

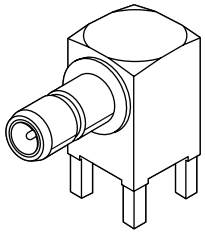
- Overall Plating: Gold
- Body: Brass
- PCB Standoffs
- Packaging: Tray



Order No.	Impedance	Lead-free
73100-0207	50 ohms	Yes
73100-0157	75 ohms Mini-SMB	
73404-1630	50 ohms	
73404-0390	75 ohms air-dielectric	

SMB Connectors Jack Receptacle Right Angle PCB

- Overall Plating: Gold
- Body: Brass
- PCB Standoffs
- Packaging: Tray



Order No.	Impedance	Lead-free
73100-0103	50 ohms	Yes
73100-0259	75 ohms Mini-SMB	
73404-0380	75 ohms air-dielectric	

FAKRA/SMB 50 Ohm Subminiature Connectors

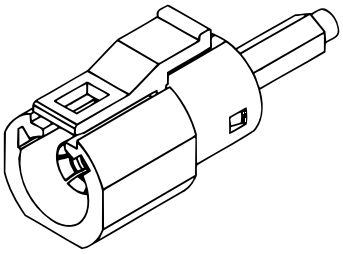
PCB
Cable
Panel Mount
12 Keys

Features and Benefits

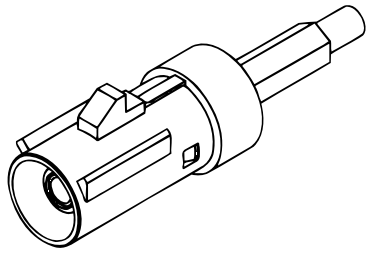
- Color-coded and keyed shrouds
- Designed for automotive telematic applications
- Low cost, high performance
- Withstands solder reflow temperatures with shroud installed

FAKRA SMB connectors are utilized by the automotive industries in the U.S. and Europe. Their application is key to on-board telematics and RF communication in today's automobiles.

This series uses an SMB interface with keyed and color-coded housings for ease in identification.



Plug



Jack

Typical Specifications

Electrical

Nominal Impedance (Ohms)	Frequency Range (GHz)	Voltage, Working (Vrms)	Insulation Resistance (Megohms)	Center Contact Resistance (milliohms)	Outer Contact Resistance (milliohms)	RF Leakage (-dB)	RF Insertion Loss (dB)	VSWR at Max. Freq
50	DC- 4	335	5000	6	1	-50 at 1GHz	≤ .2 at 4GHz	1.3 max

Mechanical

Coupling Method	Force to Engage (max)	Force to Disengage*	Durability (Cycles)
Snap	9 lbs	8 lbs	100

* With latch disengaged

Environmental

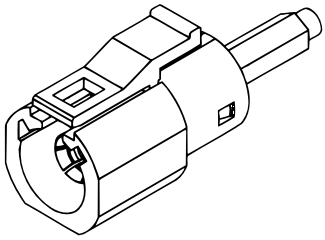
Temperature (Degrees C)	Vibration: MIL-STD-202, Method 204	Thermal Shock: MIL-STD- 202, Method 107	Corrosion (Salt Spray): MIL-STD-202, Method 101	Mechanical Shock: MIL-STD-202, Method 213	Moisture Resistance: MIL-STD-202, Method 106
-65 to +100 +125 for PCB†	Test Condition B	Test Condition B	Test Condition B	Test Condition B	Five minutes after removal 200 Megohms

† 30 seconds

FAKRA/SMB 50 Ohm Subminiature Connectors

Plug
Straight
Crimp
Keyed

- Color-coded and keyed
- Body: Zinc alloy
- Plating: Nickel
- Cable: RG174, 188, 316



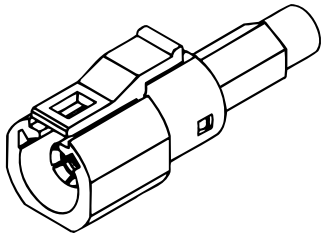
Part No.	Body	Color	Assembly Instruction
73415-2920	Z	Water blue	AS-89678-6800
73415-2919	K	Curry yellow	
73415-2918	I	Beige	
73415-2917	H	Violet	
73415-2916	G	Gray	
73415-2915	F	Brown	
73415-2914	E	Green	
73415-2913	D	Bordeauxviolet	
73415-2912	C	Blue	
73415-2911	B	Signal white	
73415-2910	A	Black	

Note: See page P-51 for keying information

FAKRA/SMB 50 Ohm

Plug
Straight
Crimp
Keyed

- Color-coded and keyed
- Body: Zinc Alloy
- Plating: Nickel
- Cable: RG58



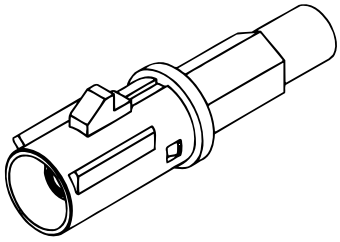
Part No.	Body	Color	Assembly Instruction
73404-0550	Z	Water blue	AS-89678-7400
73404-0549	K	Curry yellow	
73404-0548	I	Beige	
73404-0547	H	Violet	
73404-0546	G	Gray	
73404-0545	F	Brown	
73404-0544	E	Green	
73404-0543	D	Bordeauxviolet	
73404-0542	C	Blue	
73404-0541	B	Signal white	
73404-0540	A	Black	

Note: See page P-51 for keying information

FAKRA/SMB 50 Ohm Subminiature Connectors

Jack
Straight
Crimp
Keyed

- Color-coded and keyed
- Body: Zinc Alloy
- Plating: Nickel
- Cable: RG58



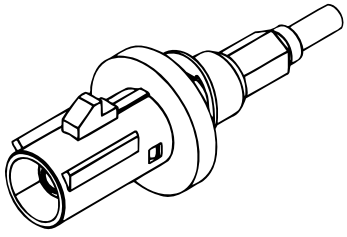
Part No.	Body	Color	Assembly Instruction
73404-0580	Z	Water blue	AS-89678-7500
73404-0579	K	Curry yellow	
73404-0578	I	Beige	
73404-0577	H	Violet	
73404-0576	G	Gray	
73404-0575	F	Brown	
73404-0574	E	Green	
73404-0573	D	Bordeauxviolet	
73404-0572	C	Blue	
73404-0571	B	Signal white	
73404-0570	A	Black	

Note: See page P-23 for keying information

FAKRA/SMB 50 Ohm

Jack
Straight
Bulkhead
Keyed

- Color-coded and keyed
- Body: Zinc Alloy
- Plating: Nickel
- Cable: RG316



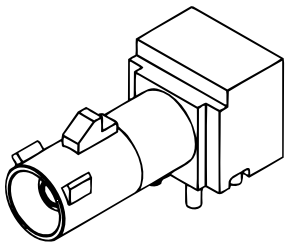
Part No.	Body	Color	Assembly Instruction
73404-1250	Z	Water blue	AS-89678-5600
73404-1249	K	Curry yellow	
73404-1248	I	Beige	
73404-1247	H	Violet	
73404-1246	G	Gray	
73404-1245	F	Brown	
73404-1244	E	Green	
73404-1243	D	Bordeauxviolet	
73404-1242	C	Blue	
73404-1241	B	Signal white	
73404-1240	A	Black	

Note: See page P-23 for keying information

FAKRA/SMB 50 Ohm Subminiature Connectors

Jack Receptacle Right Angle PCB Keyed

- Color-coded and keyed
- Body: Zinc Alloy
- Plating: Tin
- Packaging: Tray
- 1-piece Diecast body and shroud

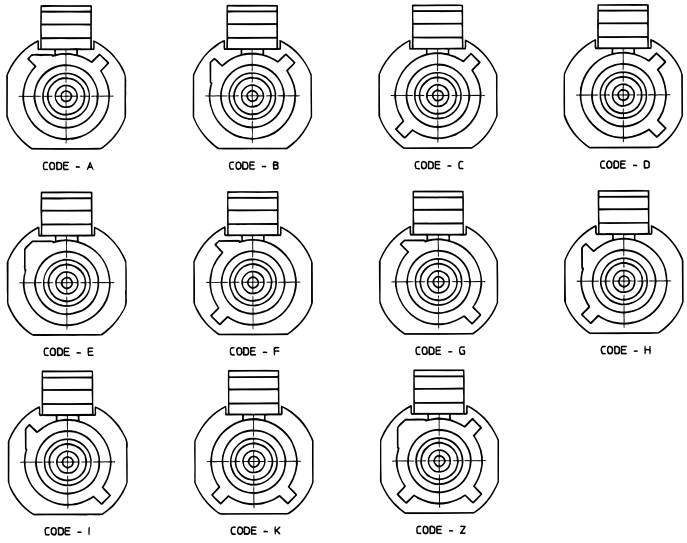


Part No.	Body	Color
73404-1060	A	Black
73404-1061	B	Signal white
73404-1062	C	Blue
73404-1063	D	Bordeaux violet
73404-1064	E	Green
73404-1065	F	Brown
73404-1066	G	Gray
73404-1067	H	Violet
73404-1068	I	Beige
73404-1069	K	Curry yellow
73404-1070	Z	Water blue
73404-1071	L	Carmine red
73404-1072	M	Pastel orange
73404-1073	N	Pastel green

Note: See page P-41 for keying information

FAKRA/SMB 50 Ohm Subminiature Connectors

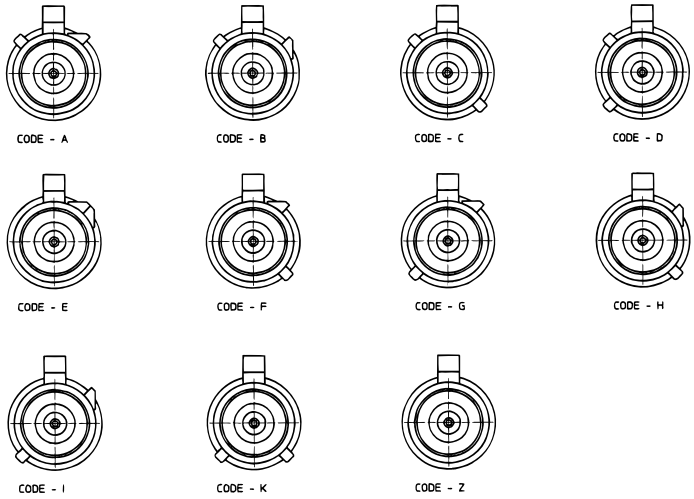
Plug
Keying and Color Code



Body	Color
A	Black
B	Signal white
C	Blue
D	Bordeaux violet
E	Green
F	Brown
G	Gray
H	Violet
I	Beige
K	Curry yellow
L	Carmine red
M	Pastel orange
N	Pastel green
Z	Water blue

FAKRA/SMB 50 Ohm

Jack
Jack Receptacle
Keying and Color Code



Body	Color
Z	Water blue
K	Curry yellow
I	Beige
H	Violet
G	Gray
F	Brown
E	Green
D	Bordeauxviolet
C	Blue
B	Signal white
A	Black

SMA Connectors

Molex SMA connectors are high-performance subminiature connectors for microwave frequencies. These connectors are typically specified to operate up to 18 GHz but will function mode free to 25 GHz and some SMA connectors have been designed to operate to 27 GHz.

The screw-threaded coupling insures uniform contact of the outer conductors, which enables the SMA to minimize reflections and attenuation at higher frequencies while providing a high degree of mechanical strength and durability. In addition, when combined with the screw-threaded coupling, the SMA interface is designed to keep reactances to a minimum, which allows the SMA to be used beyond the frequencies associated with snap-on subminiature connectors.

Typical applications for SMA connectors include microwave active and passive components, instrumentation, avionics, and other high-end radio electronics.

Features and Dimensions

- Subminiature
- Threaded coupling
- DC to 27 GHz

Engineering

	Nominal Impedance	Frequency Range	Voltage Rating - Sea Level	Temperature
Cabled	50 ohms	DC-18 GHz	335 Vrms	-65 to +165˚C
Non-Cabled		Cable Limited		

Mechanical

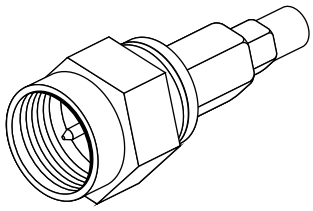
	Recommended Mating Torque	Force to Engage and Disengage - Radial	Coupling Nut Retention Force	Coupling Proof Torque	Mating Characteristics	Connector Durability	Center Contact Retention Axial Force	Cable Retention Axial Force
Cabled	31N to 44.4N (7 to 10 in.-lb)	8.9N (2 in.-lb)	Plugs-266.6N (60 lb)	Plugs-1.7N-m (15 in.-lb)	See MIL-STD-348 Fig. 310-2 for Jacks Fig. 310-1 for Plugs	500 cycles	26.7N (6 lb)	133.3N (30 lb)
Non-Cabled								N/A

Electrical

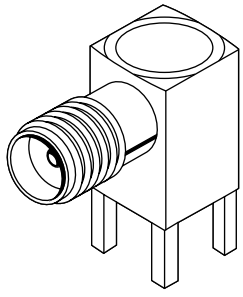
	Insulation Resistance	Dielectric Withstanding Voltage	RF High Potential Withstanding	Contact Resistance: Center Contact Initial	Contact Resistance: Center Contact After Environment	Contact Resistance: Outer Contact	Contact Resistance: Outer Conductor to Body	Voltage Standing Wave Ratio	RF Leakage	RF Insertion loss - dB max.
Cabled	5000 Megohms	750 Vrms	500 Vrms at 5 MHz to 7.5 MHz	3.0 milliohms	4.0 milliohms	2.0 milliohms	5 milliohms	1.15 + .01fGHz	-60 dB min. 2 to 3 GHz	$.04\sqrt{f(GHz)}$
Non-Cabled			670 Vrms at 5 MHz				N/A	1.04 + .01fGHz	-100 dBmin. 2 to 3 GHz	$.04\sqrt{f(GHz)}$

Environmental

	Vibration: MIL-STD-202, Method 204	Shock: MIL-STD-202, Method 213	Thermal Shock: MIL-STD-202, Method 1071	Corrosion (Salt Spray): MIL-STD-202, Method 101	Moisture Resistance: MIL-STD-202, Method 106 5 min. after removal	Corona Level: 70,000 Feet
Cabled	Test Condition D	Test Condition I	Test Condition B	Test Condition B	200 Megohms	250 Vrms
Non-Cabled						



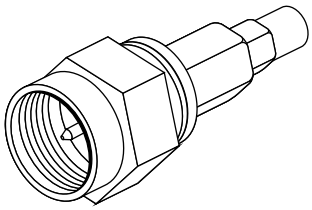
Straight Crimp/Crimp Plug



Right Angle PCB Jack Receptacle

SMA Connectors
Plug
Straight
Crimp/Crimp

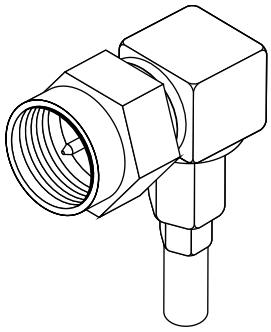
- Body: Stainless Steel, passivated or Brass
- Center contact crimp or solder termination
- Crimp braid termination
- Packaging: Individual



Order No.	Cable Group	Assembly Instructions	Body	Lead-free
73251-0151	RG174, 179, 187, 188, 316	ES-89675-1580	Stainless Steel	Yes
73251-0131	RG58, 141, 303	ES-89675-1570		
73251-0450	RG174, 179, 187, 188, 316	ES-89675-1580	Brass	
73251-3120	RG178, 196	See Sales Drawing		
73251-2931	LMR240			
73251-1630	LMR195			

SMA Connectors
Plug
Right Angle
Solder/Crimp

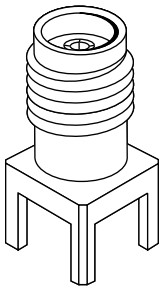
- Body: Stainless Steel, passivated or Brass
- Center contact solder termination
- Crimp braid termination
- Packaging: Individual



Order No.	Cable Group	Assembly Instructions	Body	Lead-free
73251-0211	RG174, 179, 187, 188, 316	ES-89675-1600	Stainless Steel	Yes
73251-0191	RG58, 141, 303	ES-89675-1590		
73391-0230	RG174, 179, 187, 188, 316	ES-89675-1600	Brass	
73251-0671	RG58, 141, 303	See Sales Drawing	Brass	

SMA Connectors Jack Receptacle Vertical PCB

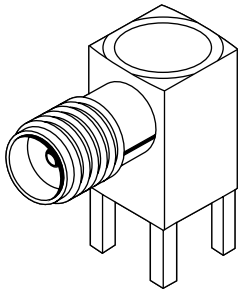
- Overall Plating: Gold
- Body: Brass
- Packaging: Tray



Order No.	With PCB Standoffs	Lead-free
73391-0060	73391-0070	Yes

SMA Connectors Jack Receptacle Right Angle PCB

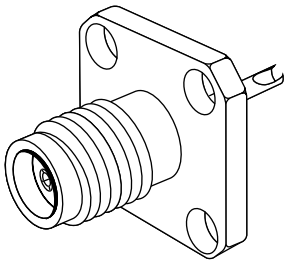
- Overall Plating: Gold or Nickel
- Body: Brass or Diecast
- Packaging: Tray



Order No.	Finish	Body	Lead-free
73100-0114	Gold	Brass	Yes
73100-0115	Nickel		
73391-0080		Diecast	
73251-0081	Gold	Diecast Bulkhead	
73251-2201	Gold	Brass	

SMA Connectors
Jack Receptacle
4 Hole Flange Mount
Solder Pot

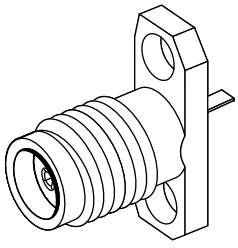
- Overall Plating: Gold
- Body: Brass



Order No.	Lead-free
73391-0040	Yes

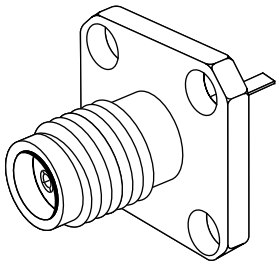
SMA Connectors
Jack Receptacle
2 Hole Flange Mount
Tab Terminal

- Body: Stainless Steel, passivated



Order No.	Lead-free
73251-0280	Yes

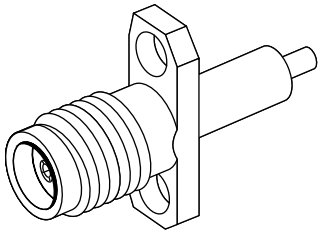
SMA Connectors
Jack Receptacle
4 Hole Flange Mount
Tab Terminal



- Body: Stainless Steel, passivated

Order No.	Lead-free
73251-0270	Yes

SMA Connectors
Jack Receptacle
2 Hole Flange Mount
Extended Dielectric
Post Terminal

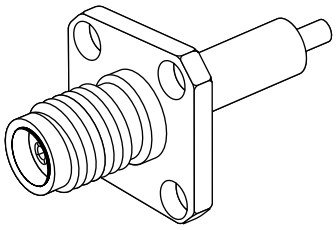


- Body: Stainless Steel, passivated

Order No.	Lead-free
73251-0420	Yes

SMA Connectors 4 Hole Flange Mount Extended Dielectric Post Terminal

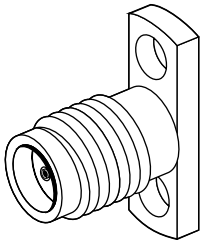
- Body: Stainless Steel, passivated



Order No.	Lead-free
73251-0040	Yes

SMA Connectors Jack Receptacle Field Replaceable 2 Hole Flange Mount 27 GHz

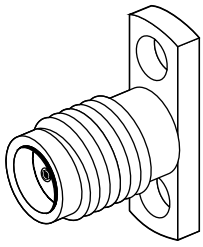
- Body: Stainless Steel, passivated



Order No.	Accepts Pin Diameter	Lead-free
73251-0200	.305 (0.012)	Yes
73251-0940	.381 (0.015)	
73251-0920	.457 (0.018)	
73251-0180	.508 (0.020)	

SMA Connectors
Jack Receptacle
2 Hole Flange Mount
27 GHz

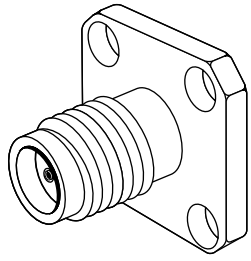
- Body: Stainless Steel, passivated



Order No.	Accepts Pin Diameter	Lead-free
73251-1020	.305 (0.012)	Yes
73251-1000	.381 (0.015)	
73251-0980	.457 (0.018)	
73251-0960	.508 (0.020)	

SMA Connectors
Jack Receptacle
Field Replaceable
4 Hole Flange Mount
27 GHz

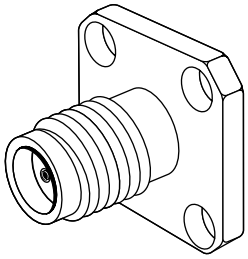
- Body: Stainless Steel, passivated



Order No.	Accepts Pin Diameter	Lead-free
73251-0160	.305 (0.012)	Yes
73251-0820	.381 (0.015)	
73251-0800	.457 (0.018)	
73251-0140	.508 (0.020)	

SMA Connectors
Jack Receptacle
4 Hole Flange Mount
27 GHz

- Body: Stainless Steel, passivated

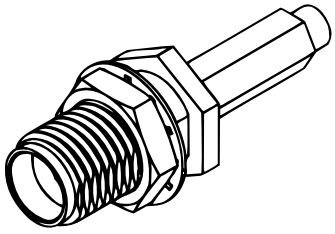


Order No.	Accepts Pin Diameter	Lead-free
73251-0900	.305 (0.012)	Yes
73251-0880	.381 (0.015)	
73251-0860	.457 (0.018)	
73251-0840	.508 (0.020)	

SMA Brass
Subminiature
Connectors

Bulkhead
Crimp Jack

- Crimp braid termination
- Packaging: Individual

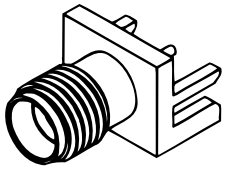


Order No.	Cable Group	Center Contact Termination	Plating	Assembly Instructions
73251-0930	RG174, 188, 316	Solder or crimp	Gold	ES-89675-1640
73251-1480	RG178			AS-89678-1480
73251-2171	RG174, 183, 316			See Sales Drawing

SMA Brass Subminiature Connectors

Edge Mount Jack Receptacle

- Mechanical captivation
- Packaging: Tray

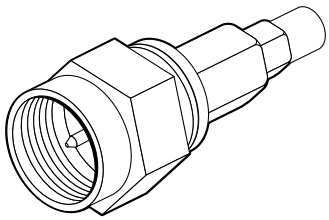


Order No.	Plating
73251-1150	Gold

SMA Stainless Steel Subminiature Connectors

Straight Solder Plug

- Solder termination
- Packaging: Individual

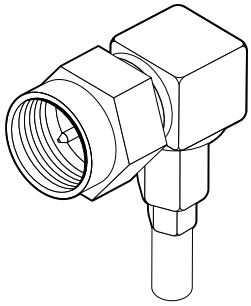


Order No.	Cable Group	Center Contact Termination	Plating	Assembly Instructions
73251-0031	.141 SR	Solder	Gold/Passivated	ES-89675-1520
73251-0051	.086 SR			
73251-3091	.047 SR			See Sales Drawing

SMA Stainless Steel Subminiature Connectors

Straight Angle Solder Plug

- Solder termination
- Packaging: Individual

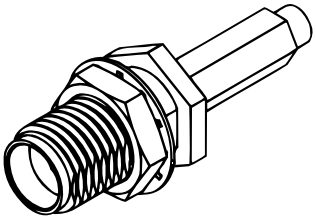


Order No.	Cable Group	Center Contact Termination	Plating	Assembly Instructions
73251-0071	.141 SR	Solder	Gold/Passivated	ES-89675-1540
73251-0091	.085 SR			

SMA Stainless Steel Subminiature Connectors

Bulkhead Jack

- Crimp braid termination
- Packaging: Individual

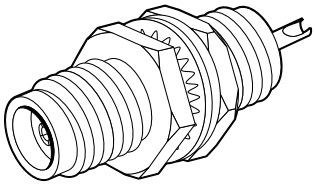


Order No.	Cable Group	Center Contact Termination	Plating	Assembly Instructions
73251-0100	RG58, 141, 303	Solder or crimp	Passivated	ES-89675-1550
73251-0080	RG55, 142			
73251-1960	RG174, 188, 316			AS-89678-8940

SMA Stainless Steel

Bulkhead Feed-through Jack Receptacle

- Mechanical captivation
- Packaging: Tray



Order No.	Plating
73251-0260	Passivated

BNC Connectors

Molex BNC connectors are small, lightweight, weatherproof miniature connectors that are the most popular connector series used in a variety of RF applications. The two stud bayonet coupling system of the BNC yields an easy-to-use, quick connecting/disconnecting device that accounts for the BNC's popularity. These connectors are manufactured to MIL-PRF-39012 requirements and are typically used in applications operating up to 4 GHz. BNC connectors are used in data networking as well as video, audio and test equipment application. Video applications such as security systems use 75 ohm versions to match the standard system impedance.

Features and Dimensions

- Miniature
- Bayonet Lock Coupling
- DC to 4 GHz
- 50 and 75 ohms

Engineering

Nominal Impedance	Frequency Range	Voltage Rating - Sea Level	Temperature
50 ohms	DC-4 GHz	500 Vrms	-65 to +165°C
75 ohms			

Mechanical

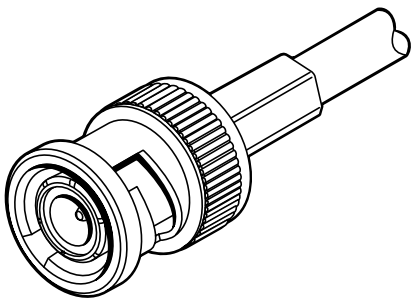
Nominal Impedance	Force to Engage and Disengage		Coupling Nut Retention Force	Mating Characteristics	Durability	Center Contact Retention - Axial Force	Cable Retention - Axial Force
	Axial Force	Radial					
50 ohms	13.3N (3 lb)	28N-cm (2.5 in.-lb)	Plugs - 444N (100 lb)	SEE ES-73599-0000	500 cycles	26.7N (6 lb)	RG 174, 188, 316 - 44.4N (10 lb) RG 58, 141, 303 - 88.9N (20 lb) RG 59, 62 - 133.3N (30 lb)
75 ohms							

Electrical

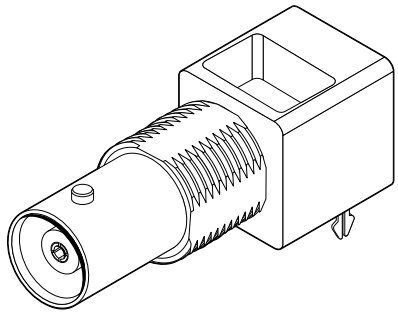
Nominal Impedance	Insulation Resistance	Dielectric Withstanding Voltage	Contact Resistance			Voltage Standing Wave Ratio	RF Leakage	RF Insertion Loss
			Center Contact Initial	Center Contact After Environment	Outer Contact			
50 ohms	5000 Megohms	1500 Vrms min.	2.0 milliohms	2.5 milliohms	0.2 milliohms	1.30:1 max.	-55 dB at 2.0 to 3.0 GHz	0.2 dB max.
75 ohms			1.5 milliohms	2.0 milliohms				

Environmental

Nominal Impedance	Vibration: MIL-STD-202, Method 204	Shock: MIL-STD-202, Method 213	Thermal Shock: MIL-STD-202, Method 1071	Corrosion (Salt Spray): MIL-STD-202, Method 101	Moisture Resistance: MIL-STD-202, Method 106 5 min. after removal	Corona Level: 70,000 Feet
50 ohms	Test Condition B	Test Condition G	Test Condition B	Test Condition B	200 Megohms	375 Vrms
75 ohms						N/A



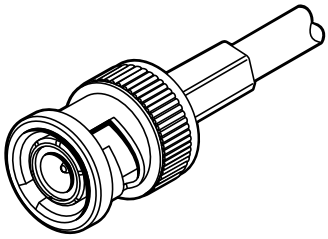
Straight Crimp/Crimp Plug



Right Angle PCB Jack Receptacle

BNC Connectors
Plug
Straight
Crimp/Crimp

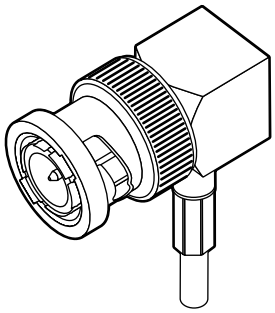
- Overall Plating: Nickel
- Center contact crimp or solder termination
- Crimp braid termination
- Packaging: Individual



Order No.	Cable Group	Impedance	Center Contact	Assembly Instructions	Coupling Nut	Lead-free
73104-5003	RG58, 141, 303	50 ohms	Non-Captive	AS-73597-0032	Diecast	Yes
73174-0083			Captive	AS-73597-0042	Brass	
73174-0093					Diecast	
73105-5003	RG59, 62, 71		Non-Captive	AS-73597-0032		
73174-0113		75 ohms				

BNC Connectors
Plug
Right Angle
Solder/Crimp

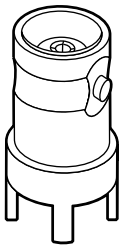
- Overall Plating: Nickel
- Center contact solder termination
- Crimp braid termination
- Packaging: Individual



Order No.	Cable Group	Impedance	Assembly Instructions	Lead-free
73100-0015	RG58, 141, 303	50 ohms	AS-73597-0010	Yes
73100-0016	RG59, 62, 71	75 ohms		

BNC Connectors
Jack Receptacle
Vertical
PCB

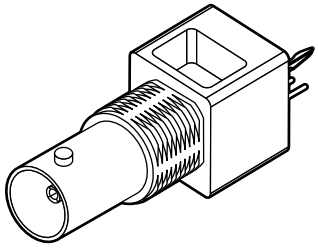
- Body: Brass
- Overall Plating: Nickel
- Packaging: Bag



Order No.	Receptacle Height	Lead-free
73100-0153	21.10 (.831)	Yes
73100-0133	27.00 (1.063)	

BNC Connectors
Jack Receptacle
Vertical
With Board Lock Pins
PCB

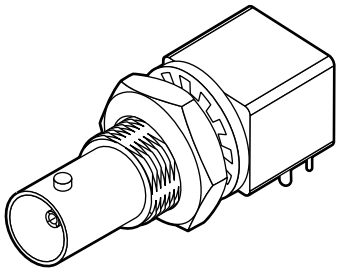
- Body/Housing: Zinc
- Overall Plating: Nickel
- Packaging: Tray



Order No.	Impedance	Lead-free
73101-0190	75 ohms	Yes

BNC Connectors
Jack Receptacle
Right Angle
PCB

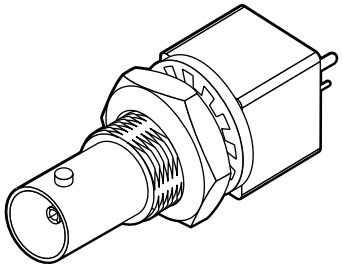
- Body/Housing: Zinc
- Overall Plating: Nickel



Order No.	Impedance	Board Lock Pins	Lead-free
73138-5033	50 ohms	Yes	Yes
73100-0080	75 ohms	No	
73101-0040			

BNC Connectors
Jack Receptacle
Vertical
Panel Isolated
PCB

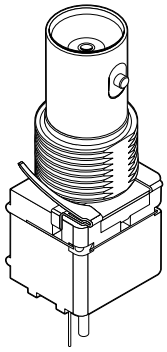
- Body: Zinc
- Housing: Valox
- Overall Plating: Nickel



Order No.	Housing Color	Impedance	Lead-free
73131-5003	Black	50 ohms	Yes
73131-5013	White		
73131-7003	Black	75 ohms	

BNC Connectors Jack Receptacle Vertical Panel Isolated Filtered PCB

- Body: Zinc
- Housing: Valox
- Overall Plating: Nickel

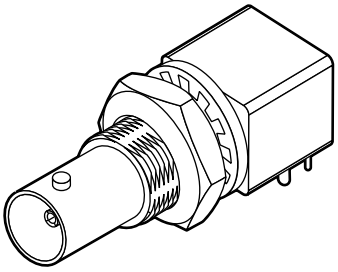


Order No.	Housing Color	Impedance	Lead-free
73101-0071	Black	75 ohms	Yes
73171-0440*		50 ohms	

*Hardware included

BNC Connectors Jack Receptacle Right Angle Panel Isolated PCB

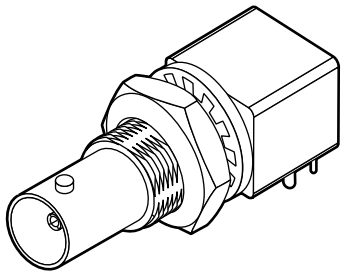
- Body: Zinc
- Housing: Valox
- Overall Plating: Nickel
- Packaging: Tray



Order No.	Housing Color	Impedance	Lead-free
73138-5003	Black	50 ohms	Yes
73138-5013	White		
73138-0070	Black	75 ohms	
73138-0071	White		

BNC Connectors Jack Receptacle Right Angle Panel Isolated PCB

- Body: Zinc
- Housing: Valox
- Overall Plating: Nickel
- Packaging: Tray

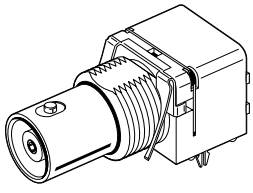


Order No.	Housing Color	Impedance	Lead-free
73100-0131*	White	50 ohms	Yes
73100-0167*	Black		
73137-5003			
73100-0067		75 ohms	
73100-0069	White		

* Board lock pins

BNC Connectors Jack Receptacle Right Angle Filtered Panel Isolated With Board Lock Pins PCB

- Body: Zinc
- Housing: Valox
- Overall Plating: Nickel
- Packaging: Individual

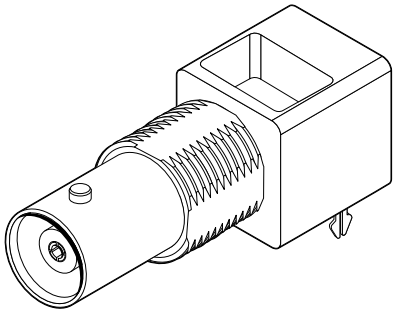


Order No.	Housing Color	Impedance	PCB Tail Length	Lead-free
73100-0090	Black	50 ohms	4.15 (.163)	Yes
73100-0162*				
73100-0134			3.56 (.140)	
73100-0223*				
†73100-0166†	Neutral	75 ohms	4.15 (.163)	
73101-0070	Black			

*Hardware included
† High temperature

BNC Connectors
Jack Receptacle
Low Profile
Right Angle
With Board Lock Pins
PCB

- Body: Zinc
- Overall Plating: Nickel
- Packaging: Tray
- 0.500" height off PCB



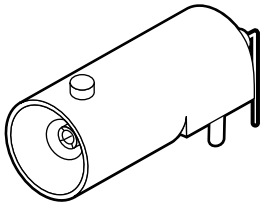
Order No.	Impedance	Lead-free
73101-0120	75 ohms	Yes
73171-0560*		
73171-2360	50 ohms	

* Round pins

BNC 50 Ohm Miniature Connectors

Right Angle PCB Jack Receptacle

- Packaging: Tray
- Narrow profile

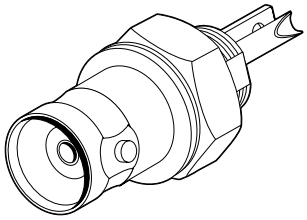


Order No.	Body	Plating
73100-0105	Zinc Alloy	Nickel
73100-0154		Tin

BNC 50 Ohm

Isolated Bulkhead Mount Jack Receptacle Solder Pot

- Packaging: Individual
- Isolated from chassis

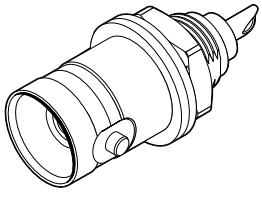


Order No.	Body	Plating
73115-5003	Brass	Nickel

BNC 50 Ohm

Bulkhead Mount Jack Receptacle Solder Pot

- Packaging: Tray

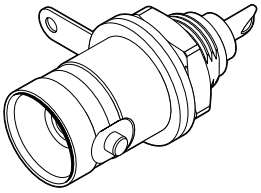


Order No.	Body	Plating
73100-0195	Brass	Nickel

BNC 50 Ohm Miniature Connectors

Bulkhead Mount Jack Receptacle Solder Pot

- Packaging: Tray

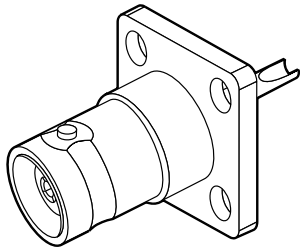


Order No.	Body	Plating
73119-5003	Brass	Nickel

BNC 50 Ohm

4 Hole Flange Jack Receptacle Solder Pot

- Packaging: Tray

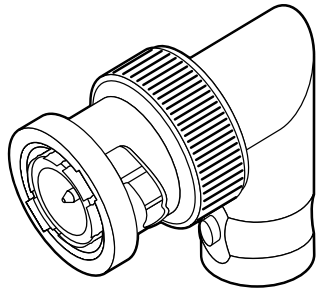


Order No.	Body	Plating
73124-5005	Brass	Nickel

BNC 50 Ohm

Adapter Right Angle Plug/Jack

- Packaging: Tray

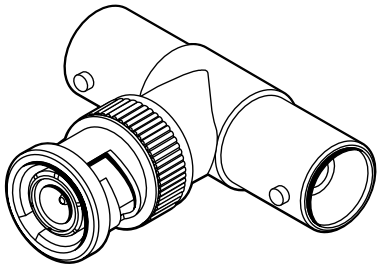


Order No.	Body	Plating
73151-5003	Zinc Alloy	Nickel

BNC 50 Ohm Miniature Connectors

Adapter "T" Jack/Plug/Jack

- Packaging: Tray

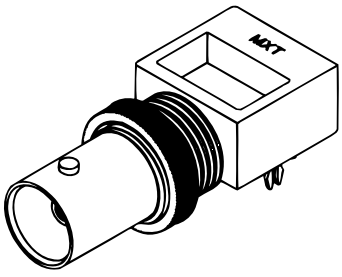


Order No.	Body	Plating
73148-5003	Zinc Alloy	Nickel

BNC 50 and 75 Ohm Commercial Connectors

Jack Receptacle Right Angle Low Profile PCB

- Die cast Zinc alloy
- Ultra low profile
- Board lock pins
- Special knurled nut
- Packaging: Tray



Order No.	Body	Plating	Impedance
73171-0700	Zinc Alloy	Nickel	75 ohms

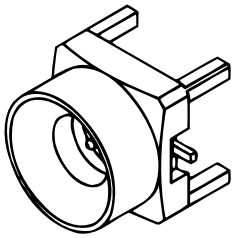
SMP Subminiature Connectors

PCB
Cable
Panel
Adapters

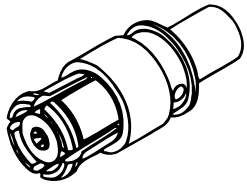
Features and Benefits

- Subminiature
- Push-on or snap coupling
- DC to 40 GHz
- Small Size
- Up to .020" radial mis-alignment

The SMP series subminiature connectors offer superior performance from DC to 40 GHz. PCB mount, cable mount and in-series adapters provide an interconnect solution for board-to-board, blind mate and rack and panel applications while maintaining package density.



Plug



Jack

Typical Specifications

Electrical

Nominal Impedance (Ohms)	Frequency Range (GHz)	Voltage, Working (Vrms)	Insulation Resistance (Megohms)	Center Contact Resistance (milliohms)	Outer Contact Resistance (milliohms)	RF Leakage (-dB)	RF Insertion Loss (dB)	VSWR at Max. Freq
50	DC- 40	335	5000	≤ 6	≤ 2	65	≤.1 at 1GHz	1.50

Mechanical

Coupling Method	Force to Engage (max)	Force to Disengage	Durability (Cycles)
Push-on	3.38 lbs	1.80 lbs	500

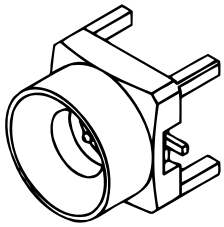
Environmental

Temperature (Degrees C)	Vibration: MIL-STD-202, Method 204	Thermal Shock: MIL-STD- 202, Method 107	Corrosion (Salt Spray): MIL-STD-202, Method 101	Mechanical Shock: MIL-STD-202, Method 213	Moisture Resistance: MIL-STD-202, Method 106
-65 to +165	Test Condition B	Test Condition C	Test Condition B	Test Condition B	Five minutes after removal 200 Megohms

SMP Microminiature Connectors

Plug
Vertical
PCB

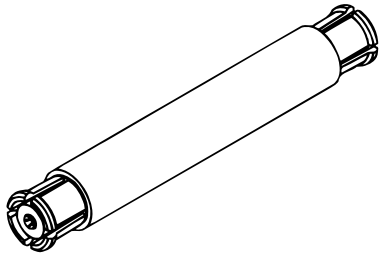
- Insulator: TFE
- Catchers mitt lead-in chamfer
- Packaging: Tape and reel



Order No.	Detent	Body	Plating
73415-3310	Limited	Brass	Gold
73415-3320	None		

Adapter
Jack to Jack

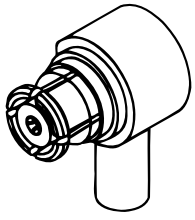
- Insulator: TFE
- Packaging: Tray



Order No.	Body	Plating
73415-3350	Beryllium Copper	Gold
73415-3020		

Jack
Right Angle
Cable

- Direct solder attach
- Packaging: Individual

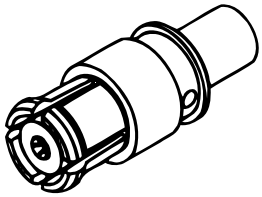


Order No.	Cable	Body	Plating	Assembly Instructions
73415-3030	.086 SR	Beryllium Copper	Gold	AS-89678-7600
73415-3580	.047 SR			
73415-3720	UT-47-TP			

SMP Microminiature Connectors

Jack
Straight
Cable

- Direct solder attach
- Insulator: TFE
- Packaging: Tray

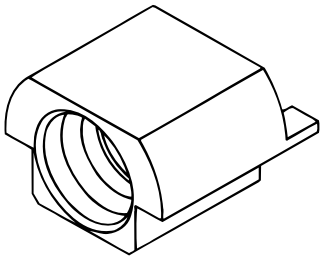


Order	No. Cable	Body	Plating	Assembly Instructions
73415-3740	UT-85-TP	Beryllium Copper	Gold	AS-89678-8560

SMP Subminiature

Plug
Edge Mount

- Insulator: TFE
- Packaging: Tray

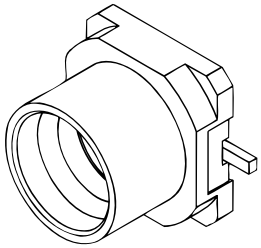


Order No.	Body	Plating	Detent
73415-3590	Brass	Gold	Limited
73415-5720			Full
73415-5740			Smooth Bore

SMP Subminiature

Plug
Vertical
Surface Mount

- Insulator: TFE
- Packaging: Tape and reel



Order No.	Body	Plating	Detent
85305-0232	Brass	Gold	Limited
73415-3810			Smooth Bore

Introduction Q-2
Cable Assemblies Overview ..... Q-3 to Q-4
Cable Assemblies
- LC Duplex Q-5
- Sealed SFP Q-6
- Circular MT Q-7
- MT and MTP/MPO Q-8

Array Connector and Adapter System Q-9
Optical Flex Circuit – Flexplane™ Q-9

Backplane Systems

- MTP-CPI Q-10
- MTP (BMTP) Q-11
- High Density MT (HBMT) Q-11
- LC (BLC) Q-12
- SC (BSC/BSCII) Q-13

Connectors and Adapters

- FC Q-14
- FC/APC Q-14
- ST A-15
- SC Q-16
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- SC/APC Q-18
- LC ..... Q-19 to Q-20
- Quad LC Q-21
- EMI Adapters Q-22
- MT-RJ Q-25

Small Multimedia Interface Optical Interconnects (SMI) Q-23
Universal Optical Adapter Q-24
Optical Interconnect System – SnapMate™ Q-25
Optical Terminus – LumaCore™ Q-26
Circular Optical Connectors Q-26
LC2 Metallic Optical Connectors Q-27

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

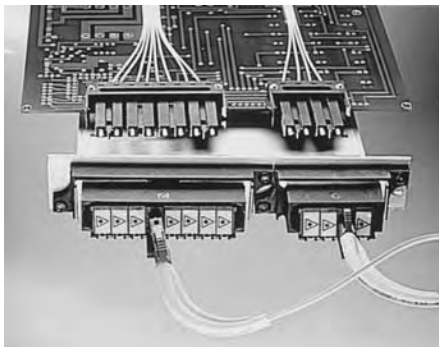
Fiber Optics
Introduction

Design and Innovation
Molex's experience and resources provide customers a wide range of design, manufacturing, and value-added services. Our in-house capabilities include computer-aided design, product modeling and rapid prototyping. These capabilities ensure designed-in reliability and performance in conjunction with faster time-to-market response for customer designed products.

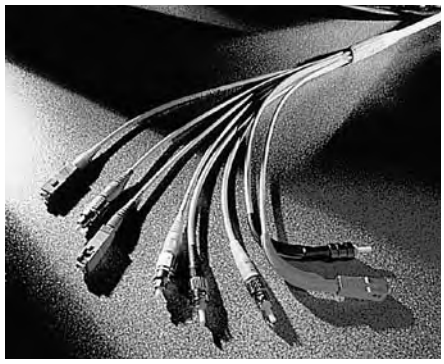
Product Lines
Our extensive product offering includes a full range of passive interconnect solutions, serving the Telecommunication, Data Communication, Medical, Industrial and CATV markets. Products include optical backplane solutions, flex circuitry, transceivers, custom and standard cable assemblies, and most fiber optic connector standards.



Optical Flex Circuitry
Our FlexPlane™ optical flex circuit provides one of the highest density interconnect systems on the market today. For high fiber count interconnects in backplanes, and cross connect systems, the FlexPlane's high density routing on a flexible, flame resistant substrate provides a manageable means of fiber routing from shelf-to-shelf.



Backplane Solutions
To meet the demand for network bandwidth management and DWDM technology, we offer a variety of backplane interconnect solutions. The High Density Backplane MT (HBMT) interconnect system is designed to offer the versatility of a blind mating card edge connector. Based on the NTT-MT* ferrule and MTP† ribbon fiber connector, the blindmate Backplane MTP (BMTP) is suitable for multimode or singlemode applications. Our blindmate Backplane LC (BLC) systems are designed to provide high density using a small form factor connector and discrete ferrule solution. The widely field deployed Backplane SC and Backplane SC II (BSC and BSCII) systems integrate the NTT standard SC with blind mating PC board mountable connectors through custom Molex backplane adapters.



Connectors
Molex connectors provide high performance and reliability. The SC, SC/APC, SC Duplex, LC, MT-RJ, MTP†, MPO, FC, FC/APC, ST‡, ST II‡, FDDI and ESCON§ connectors are designed to industry standards. These designs utilize the latest engineered polymers, precision ceramics, and the finest metals. Our small form factor connectors are about 50% smaller than standard connectors.

Small Form Factor Connectors
Also in our offerings are small form factor connectors. Each is designed with unique features to address specific applications. The MT-RJ is the ideal small form factor duplex connector for Data Communication applications. The LC connector family offers a high performance connection within its small form factor package. The MTP/MPO connector provides a quick and reliable connection for multiple optical fibers.

Cable Assemblies
Exceptional performance in our cable assemblies is the result of advanced manufacturing processes and demanding specifications employed throughout the termination process. Each cable assembly is 100% optically tested and serialized for full traceability.

Contact
Datasheets, engineering drawings, termination procedures, application notes, etc., are all available online for your convenience. View our product information at www.molex.com/fiber or contact us at 1-800-A1-FIBER.

* NTT-MT is a trademark of NTT Advanced Technology Corporation
† MTP is a registered trademark of US Conec Ltd.
‡ ST, ST II are trademarks of OFS
§ ESCON is a registered trademark of International Business Machines Corporation

Fiber Optics
Cable Assemblies



Features and Benefits
- Standard or custom assemblies
- Precision ferrule endface geometry
- Controlled fiber protrusion
- Factory polished, tested and serialized

Applications
- Telecommunication networks
- Data communication networks
- CATV networks

Overview

Many years in development and refinement, the advanced Molex termination process delivers exceptional performance for fiber optic terminations and cable assemblies. This process was developed to specifically control one of the most critical elements of fiber optic terminations—the ferrule endface geometry. Physical contact, fiber core alignment and termination reliability are greatly impacted by the radius, apex offset and concentricity of the ferrule. That is why pre-polished and pre-radiused ferrules are always used in Molex connectors.

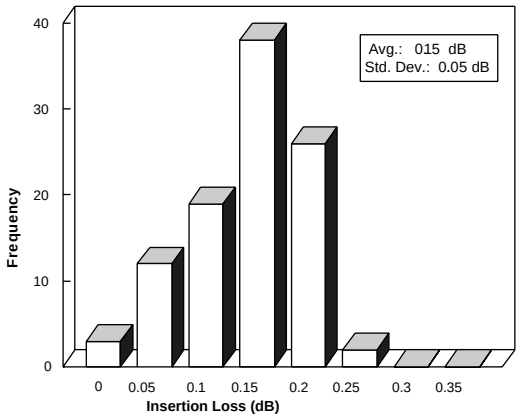
Fiber Optic Cable assemblies are available in Singlemode and Multimode fiber types. Molex manufactures standard single-ended pigtails or double-ended jumpers as well as having capabilities to build customized fiber assemblies. Customization can include special lengths, multiple fiber counts, staggered breakouts, custom breakout options, 45˚ or 90˚ bend boots, as well as specially tailored assemblies for almost any application. All assemblies are 100% inspected for optical characteristics and fiber endface finish. Inspection for endface geometry requirements is also available for any optical termination.

Assemblies suitable for data communication, telecommunication and CATV applications are terminated with connectors that are designed to and are compatible with industry standards (EIA/TIA, IEC, ANSI, NTT and Telcordia Technologies).

Whatever application you have in mind, the Molex production team will make certain your assemblies, whether custom or standard, are delivered on time and to your exact specifications.

Specifications

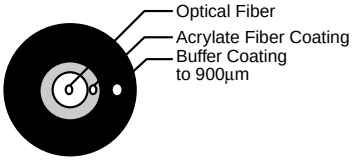
Finish	Units	Insertion Loss		Return Loss
		Mean	Sigma	
Standard Multimode (Ceramic Ferrule)	dB	.34	.10	—
Enhanced Multimode (Ceramic Ferrule)		.17	.06	—
Super PC		.15	.05	≥ 45
Ultra PC		.15	.05	≥ 55
Angled Physical Contact (APC)		.25	.06	≥ 65



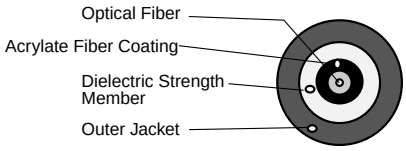
SC Connector, 9/125µm Fiber (Measured at 1550nm)

Simplex Cable

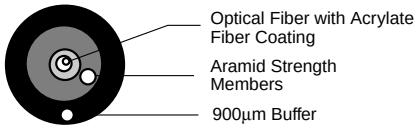
900µm Buffered Fiber



Single Fiber Cable

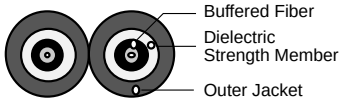


900µm Buffer and KEVLAR*

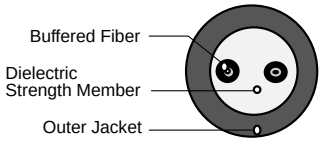


Duplex Cable

2-Fiber Zipcord Cable

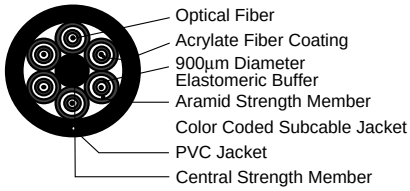


Round Cable

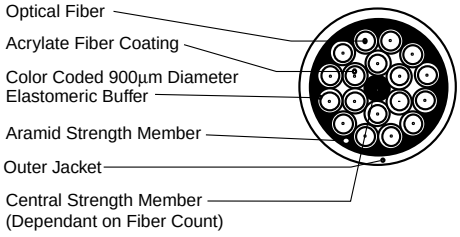


Breakout, Outside Plant and Distribution Cable

Breakout Cable†



Distribution Cable†



*** KEVLAR is a registered trademark of E.I. duPont de Nemours & Company, Inc.**
† Drawings are for illustration purposes. Please contact Molex Fiber Optics for details and options, in the U.S. (800)-A1-FIBER or outside the U.S. (630) 512-8787.

Optical Industrial Cable Assemblies and Adapters

106059 LC Duplex



Designed with rugged and compact housings, Molex's optical industrial assemblies incorporate the high performance of a fiber optic connection with the versatility of a rugged industrial connector. The assemblies guarantee an environmentally sealed optical connection with the combined push-pull insertion and bayonet-style mechanical latch. The bulkhead adapter mounts directly in a panel cut-out, serving as a sealed feed-through. The removable connector provides sealing between both the adapter mating-surface as well as the cable exiting the connector.

Molex's optical industrial assemblies are compatible with many fiber types and cable constructions and ideal for both indoor and outdoor applications. This assembly is particularly well-suited for long distances or remote connections.

Features and Benefits

- Provides moisture and dust protection allowing use in harsh industrial environments
- Sealed panel feed-through design allows easy installation into enclosures
- 100% optically tested to ensure quality performance assemblies
- Available in singlemode and multimode styles to work with any common fiber type
- Housing is NEMA 6P and IP67 rated ensuring dust and moisture protection
- Push-pull insertion with bayonet-style mechanical latch provides easy installation and removal
- Broad temperature range (-40 to +85˚C) is ideal for indoor or outdoor applications
- Available with a single fiber SC, 2 fiber LC duplex or multifiber MPO interface.

Reference Information

Packaging: Cable Assemblies—Individual bag or spool
Adapters—Individual bag
Mates With: Standard LC, SC or MTP/MPO assemblies
Designed In: Inches

Optical

Insertion Loss: Singlemode—<0.35dB max. (0.13dB typical)
Multimode—<0.50dB max. (0.10dB typical)
Return Loss: Singlemode—45 to 55dB
Wavelength: Singlemode—1310 or 1550nm
Multimode—850 or 1300nm

Physical

Housing: Polymer or Zinc Die-cast with Electroless Nickel finish
Ferrule: Zirconia ceramic
Cable Type: Indoor/outdoor
Fiber Type: Singlemode or multimode

Applications

- Industrial
  - System controls
  - Monitoring
  - High Electromagnetic Interference (EMI) and Radio Frequency Interference (RFI) areas
- Medical equipment
- Telecommunication/CATV
  - FTTx
  - Outdoor system connections
- Other markets
  - Rugged test equipment
  - Mobile broadcasting or audio-visual equipment
  - Food processing
- Wifi and Wimax antenna connectors

Cable Assemblies (Connector reference part numbers)

Order No.	Style	Application	Ferrule Type	Fiber Count	Interface	Housing Material
106059-1100	Industrial LC	Indoor/Outdoor	Multimode	2	Male	Polymer
106059-1110			Singlemode			
106059-1130			APC			
106059-7100			Multimode			Metal
106059-7500			Singlemode			
106059-7900			APC			
106059-2020	Industrial SC		Multimode	1		Polymer
106059-2025			Singlemode			
106059-2026			APC			
106059-6100	Industrial MPO		Multimode	4		
106059-6105				8		
106059-6110				12		
106059-6115			Singlemode	4		
106059-6120				8		
106059-6125				12		

Adapters

Order No.	Style	Fiber Type	Sleeve Material	Application	Housing	Dust Cap
106059-0200	Industrial LC	Multimode	Metal	Bulkhead	Polymer	Polymer
106059-0210		Singlemode	Ceramic			
106059-0220		APC (SM)				
106059-3110		Multimode	Metal	In-Line		
106059-3100		Singlemode	Ceramic			
106059-7250		Multimode	Metal	Bulkhead	Metal	
106059-7650		Singlemode	Ceramic			
106059-7200		Multimode	Metal			Metal
106059-7600		Singlemode	Ceramic			
106059-2031	Industrial SC	Multimode	Metal		Polymer	Polymer
106059-2030		Singlemode	Ceramic			
106059-2132		APC (SM)				
106059-4110		Multimode	Metal	In-Line		
106059-4100		Singlemode	Ceramic			
106059-6200	Industrial MPO	Singlemode/Multimode	N/A	Bulkhead		

Accessories

106059-0020	Dust Cap, Industrial optical assemblies (connector cap), Polymer

Note: 1. Optical industrial assemblies are supplied in a cable assembly form only
2. Above part numbers are for reference drawings only, all assemblies will be assigned custom part numbers

Sealed SFP Assemblies Integrated Optical and Electrical Receptacles

106501



Features and Benefits

- Compatible with ODVA compliant optical and Copper assemblies accommodating industry standard interface connectors and cable assemblies
- Accommodates Copper or optical SFP devices allowing for future upgrades or backwards compatibility
- IP-67 rated hardened user interface for providing dust and water protection
- Durable diecast receptacle housing with electrically conductive gasket provides EMI suppression
- Allows SFP device to be installed and/or removed from the front or back side of the receptacle allowing for convenient factory installations and easy field upgrades

Applications

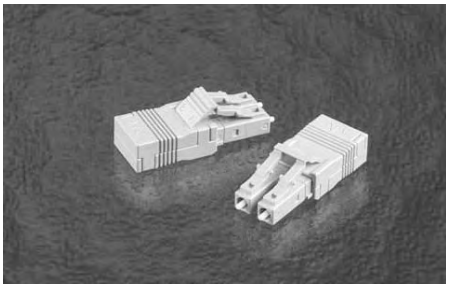
- Industrial
  - System controls
  - Monitoring
  - Data routers
- Telecommunication
  - Outdoor environment data routers, switches or networking equipment
  - FTTX connections
- Wireless base station and antenna feed
  - WiFi
  - WiMax
- Mobile communications equipment
  - Military
  - Broadcast
- Other markets
  - BPL (Broadband over power lines)
  - Food processing
  - Rugged test equipment

SFP ASSEMBLIES

Order No.	Protocol	Components	Copper Flex Length
106501-1000	Optical	Module, SFP cage, high-speed Copper-flex assembly	0.15m (6.000")
106501-2000	Electrical		
106501-3000	Optical or Electrical	Receptacle with panel nut	N/A

LC Loopback Assemblies

106052



The Molex family of LC Loopback assemblies provides a stable and convenient means for testing SFP and SFF devices in many applications. The rugged and compact design of the Molex Loopback assembly incorporates a contoured grip which allows for easy installation and removal, a durable thumblatch and compact size which will allow installation in ganged and belly-to-belly applications with no interference. Molex Loopback assemblies are available in singlemode, multimode 50/125µm and multimode 62.5/125µm fiber sizes.

Features and Benefits

- Protected fiber loop prevents damage to fiber
- Contoured handle/housing for easy insertion and removal of the loopback
- 100% testing ensures quality performance of all assemblies
- Available in singlemode and multimode styles
- Compact size allows for testing of ganged devices with no interference
- Overall length is less than a jacketed LC connector allowing ample panel to door clearance
- Attenuated singlemode versions are also available

Applications

- Fibre channel testing
- Gigabit Ethernet testing
- ATM testing
- High-speed device testing
- Device burn-in
- Lab testing
- System troubleshooting

Reference Information

Insertion Loss: <3.0dB (1.0dB typ.)
Return Loss: Singlemode >50dB
Wavelength: Singlemode—1310nm or 1550nm
Multimode—850 or 1300nm

Order No.	Description
106052-0010	LC Loopback Assembly, Multimode 50/125 fiber IL <2.0 dB at 850nm and 1300nm
106052-0040	LC Loopback Assembly, Multimode 62.5/125 fiber IL <2.0 dB at 850nm and 1300nm
106052-0030	LC Loopback Assembly, Singlemode fiber IL <3.0 dB at 1310nm and 1550nm

Circular MT Optical Cable Assemblies

106277 Circular MT

106275 1-by-3 Circular MT



Circular MT Connector and Receptacle



1-by-3 Circular MT Connector and Adapter

Molex's rugged, high-density circular MT cable assemblies are designed to meet requirements mandated by telecommunication, military, medical and many other industries. Utilizing the low-profile Circular MT or 1-by-3 circular connectors, these cable assemblies are designed to meet or exceed the mechanical specifications of traditional datacommunication and telecommunication interchassis connections.

The Circular MT recptacle and 1-by-3 circular MT adapter housings feature a deep, polarized mating cavity which will reduce alignment-pin hole damage that may occur during the mating process with traditional MT connector systems. The circular MT receptacle housing uses a jam nut for mounting versus the 1-by-3 circular MT adapter that is flange mount with screws. The shutter designed for the 1-by-3 adapter provides laser eye safety and has passed the TP-91 dust test specification.

Molex's circular MT cable assemblies offer a more robust MT ferrule-based interface versus ribbon-based optical interfaces, which have traditionally been rectangular.

The circular MT and 1-by-3 circular MT products ensure improved alignment benefits, increased pull-strength and the use of new round ribbon-cable constructions. Circular MT connectors willl be sold only as terminated cable assemblies.

Features and Benefits

- MT ferrules are recessed in the connector and receptacle housings ensuring scoop-proof mating which prevents damage to alignment pins and ferrule endface
- Aluminum connector and receptacle housings provide a robust interconnect with exceptional pull strength
- Stainless Steel locking mechanism provides a secure latch to prevent accidental demating
- Standard MT ferrules provide an industry-standard interface with high density and reliable performance
- Designed for round, multi-fiber jackets to provide improved fiber management

Reference Information

Packaging: Custom per assembly

Optical

Ferrule Type: MT Ferrule
Fiber Density: 12 to 72 fibers
Fiber Type:
Single mode—9/125µm
Multimode—50/125µm or 62.5/125µm
Insertion Loss:
Single mode:
8 Fiber: 0.12 dB typical <0.5dB max.
12 Fiber: 0.15 dB typical <0.75dB max.
24 Fiber: 0.20 dB typical <0.75dB max.
Multimode
12 Fiber: 0.15 dB typical <0.5dB max.
24 Fiber: 0.22 dB typical <0.75dB max.
36 Fiber: 0.30 dB typical <1.0dB max.
72 Fiber: 0.35 dB typical <1.0dB max.

Mechanical

Durability: 200 matings

Physical

Housing: Nickel-plated aluminum

Applications

- Telecommunication equipment
  - Hubs, routers, data centers
- Instrumentation and medical equipment
  - Test equipment, switches, video systems
- Military
  - Communications equipment

Order No.	Component	Component Width	Component Length	† Cable Length	‡Fiber Density
106277-0001*	Circular MT Connector, Double-Ended Assembly	∅12.70mm (.500")	∅36.30mm (1.429")	3.00m (9.840')	24 Fiber
106277-1001*	Circular MT Receptacle, Single-Ended Assembly	∅19.05mm (.750")	∅28.70mm (1.130")		
106277-0000*	Circular MT Connector and Receptacle System	N/A	N/A		
106275-1000*	1-by-3 Circular MT Connector, Double-Ended Assembly	∅17.175mm (0.676")	∅49.00mm (1.92")		
106275-1001*	1-by-3 Circular MT Adapter System Drawing	26.2-by-26.2mm (1.03 x 1.03")	38.80mm (1.527")	N/A	3-by-12 Fiber MT = 36 Fibers
106275-0000*	1-by-3 Circular MT Connector and Adapter System	N/A	N/A	3.00m (9.840')	

*Only sold as terminated cable assemblies. Circular connector and receptacle components will not be sold separately.
Part numbers and sales drawings will be established based on specific customer design requirements.
†Cable Length: Dependent upon customer design requirement
‡Fiber Density: Fiber counts range from 12 to 72 fibers, dependent upon customer design requirement

MT and MTP*/MPO Cable Assemblies



Features and Benefits

- Precision alignment pins improve insertion loss performance
- Fanouts to simplex fiber connectors require no splicing resulting in cost reduction
- MTP to HBMT and BMTP cable assemblies provide a transition from the board to the backplane
- Color-coded housings ensure singlemode and multimode assemblies are easily distinguished
- Push-pull mating of MTP* for quick connections
- Variety of MTP adapters facilitate multiple mounting options for flexible board and panel layouts
- QSFP MT optical cable assemblies meet the QSFP interface specification

Applications

- Dense interconnect for datacommunication and telecommunication systems
- Chassis-to-chassis connections
- Miniature interconnection for optoelectronic modules

Reference Information

MTP/MPO sold as terminations only

* MTP is a registered trademark of US Conec Ltd.

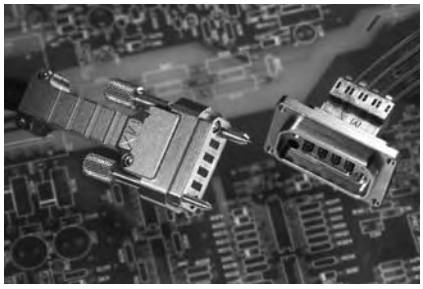
Order No.	Bandwidth See Table 1	QSFP Optical Cable Assembly Description	Length/M
106283-0001	Standard Bandwidth	MTP (female) to MTP (female), 3mm 8 fiber, OFNP	1
106283-0005			5
106283-0010			10
106283-0015			15
106283-0020			20
106283-0025			25
106283-0030			30
106283-1001	High Bandwidth	MTP (female) to MTP (female), 3mm 8 fiber, OFNP	1
106283-1005			5
106283-1010			10
106283-1015			15
106283-1020			20
106283-1025			25
106283-1030			30
106283-5001	Standard Bandwidth	MTP (female) to 4 Duplex LC, 3mm 8 fiber, OFNP	1
106283-5003			5
106283-5101	High Bandwidth	MTP (female) to 4 Duplex LC, 3mm 8 fiber, OFNP	1
106283-5103			5
106283-5201	Standard Bandwidth	MTP (female) to 8 Simplex LC	1
106283-5203			5
106283-5301	High Bandwidth	MTP (female) to 8 Simplex LC	1
106283-5303			5

Note: See Molex website for additional ordering information: www.molex.com/fiber/mtpca.html

Table 1

Fiber Type	Overfilled Launch Bandwidth, Min. (MHz-km)		1 Gigabit Ethernet Link Distance, Min. (m)		10 Gigabit Ethernet Link Distance, Min. (m)	
	850nm	1300nm	850nm	1300nm	850nm	1300nm
Standard Bandwidth	500	500	600	600	86	—
High Bandwidth	1500	500	900	550	300	—

Array Connector and Adapter System



The Molex array connector and adapter system provides a high fiber density chassis-to-chassis interconnect solution. Constructed of nickel plated aluminum, the array connector system provides an extremely rugged interconnect that is designed to shield and isolate EMI.

Molex's Array connector and adapter system is utilized on the card front panel or chassis back panel. Robust polarized guide pins ensure consistent and repeatable mating. The Array System exceeds Telcordia 1435 Pull Test Requirements with a robust back shell and a variety of ribbon cable retention mechanisms. Multiple back shell options allow system design engineers to customize their cable management strategy.

Array terminations utilize the industry standard NTT developed MT ferrule as the optical interconnect. A high-density interconnection of 192 fibers is achieved by increasing the number of MT ferrules in the array connector either as a single or dual row of 4 to 8 MT ferrules per row. The individual MT ferrules may be populated with 4, 8, 12 or 24 fibers depending on the optical requirements.

Features and Benefits

- Aluminum nickel plated housing protects internal fibers while providing excellent EMI shielding
- Capable of aligning up to 576 fibers in a 1.30" (33.02mm) by 3.70" (93.98mm) footprint which increases real-estate on the chassis front or back panel
- Multiple back shell design allows for customization of the fiber routing in a system
- Utilizes industry standard NTT MT ferrules as the optical interface providing a scalable solution as the optical requirements increase
- Jackscrews secure connector and mating adapter providing a robust mechanical interface

Applications

- Datacommunication networks
- Telecommunication networks
- Chassis-to-chassis connections

Reference Information

Connector/Adapter Body Material: Aluminum Nickel plated
Connector Ferrule: 4, 8, 12 or 24 fiber available
Housing: UL V-0

Order No.	Description	Backshell Angle	Max. Fiber Density
106009-0250*	1 x 4 Array Interconnect System	Straight	48
106009-0320*	1 x 6 Array Interconnect System		72
106009-0420*	1 x 8 Array Interconnect System	90 Degree	192

*Only sold as terminated cable assemblies. Array connectors will not be sold separately.
Part numbers. and drawings will be established based on specific customer design requirements.

Fiber Optics
Optical Flex Circuit and Backplane Solutions

Flexplane™ Optical Flex Circuit



Features and Benefits

- Diverse substrate size, shape and packaging provides efficient and manageable solutions to high-fiber count systems
- Compatible with mass and discrete-fiber terminations to ensure customized solutions
- Available in virtually any routing scheme to provide a variety of design alternatives
- Direct or fusion splice terminations available to eliminate additional insertion loss
- Compatible with MT ferrules, an ideal solution for high-density applications using Molex's backplane HBMT and BMTP interconnect systems
- Singlemode, multimode or hybrid versions provide a variety of options
- Entire circuit is 100% insertion loss (IL) and continuity tested to ensure correct pin-out prior to shipment
- Flame Retardant Flex Plane: Meets UL Optical Fiber Branching Device (File #E236312)

Applications

- Computing equipment
- Telecommunications equipment: transmission, switching, multiplexing
- Broadband equipment: amplifiers

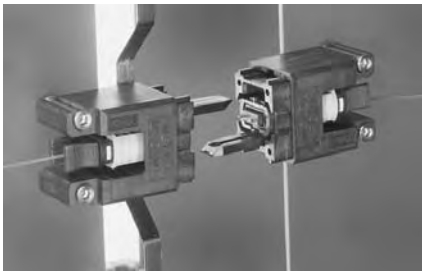
Contact Molex Fiber Optics for configuration and part numbers, in the U.S. (800) A1-FIBER or outside the U.S. (630) 512-8787.

Order No.	Description	Substrate Width	Substrate Length	Substrate Height
106401-0000†	Standard Routing 8-by-8 Perfect Shuffle	74.00mm (2.193")	137.00mm (5.394")	1.50mm (.059")
106404†	Flame-Retardant Standard Shuffle Series	Standard or 3D versions are also available as Flame-Retardant FlexPlane assemblies		
106406-0000†	3D Routing 8-by-8 Perfect Shuffle	32.00mm (1.260")	71.00mm (2.795")	3.00mm (.118")
106404†	Flame-Retardant 3D Shuffle Series	Standard or 3D versions are also available as Flame-Retardant FlexPlane assemblies		

† Only sold as terminated assembles. Part numbers and sales drawings will be established based on specific customers design requirements.

MTP-CPI (Coplanar Interconnect)

106088



Features and Benefits

- Hermaphroditic design allows the same interconnect housing to be used on front and rear blades simplifying procurement and inventory
- No mating frame required in the backplane to simplify design and assembly
- Inner housing is spring loaded, providing generous Z-float which compensates for card tolerances
- MTP connector optical interface meets industry standard interface specifications for multi-fiber and parallel optical transceiver applications

Applications

- Internetworking equipment
  - Routers
  - Hubs
  - Servers
- Telecommunication equipment
  - Central office
  - Wireless infrastructure
  - Multi-platform service systems (DSL, cable data)
- Test and measurement equipment

Reference Information

Packaging: Individual
Mates With:
- The MTP-CPI is hermaphroditic
- MTP cable assemblies are sold separately (MTP specifications can be found on the Molex website at: www.molex.com/fiber/mtpca.html)

Optical

Insertion Loss (IL):
Dependent on the fiber type and performance requirements (MTP specifications can be found on the Molex website at: www.molex.com/fiber/mtpca.html)

Mechanical

Mating Force: 10.0 lbf (44.48N)
Durability: 200 mates

Physical

Housing: Thermoplastic Polyphenylene Sulphide (PPS)
RoHS Compliant

Molex's new coplanar connector allows front cards to be replaced without disrupting cabling at the rear of the chassis, resulting in maintenance flexibility and minimal service interruption. The MTP*-CPI (coplanar interconnect) provides a smooth transition from the front blade active devices (LEDs, lasers and receivers) to the rear transition module (RTM).

Molex developed the MTP-CPI to meet the dimensional requirements of the Advanced Telecom Computing Architectures (Advanced TCA or ATCA), zone 3, connector specification. ATCA is an emerging standard focused on developing a new blade (board) and chassis (shelf) form factor optimized for high-speed communication systems. The principal objective is to provide standardized platform architecture for central office or service provider applications. For more information on ATCA, please visit www.picmg.org.

Molex selected the MTP connector interface for use in the ATCA midplane application because of its optical density and interoperability between vendors. The MTP connector is the industry standard connector system for multi-fiber and parallel optical transceiver applications.

The MTP-CPI is not limited to ATCA applications and may be used in any coplanar application. The new MTP-CPI is mounted directly to the card with a simple pass-through cutout in the backplane. The MTP-CPI is a hermaphroditic design, which simplifies the procurement. With the use of the MT ferrule in the MTP connector, fiber counts from 8 to 72 fibers can be achieved. Molex MTP cable assemblies are sold separately.

*MTP is a registered trademark of US Conec LTD

Order No.	Component	Mounting Style	Dimension (L x W x H)
106088-0100	Connector	Rear Mount	21.57mm (.849") x 21.31mm (.839") x 17.64mm (.694")
106088-0200		Side Mount	14.35mm (.565") x 32.24mm (1.269") x 17.64 (.694")
106088-0800	Removal Clip	N/A	N/A

MTP-CPI Cable Assemblies

MTP cable assemblies sold separately. See Molex website for ordering information: www.molex.com/fiber/mtpca.html

MTP* Backplane Interconnect System (BMTP)



Features and Benefits

- Patented dual shutter design for dust and eye safety protection
- Singlemode and multimode compatible
- Integrates with HDM electrical connector system
- Telcordia GR-1435-core compliant
- Generous mechanical float in the X, Y and Z axis
- Compatible with optical flex circuit technology
- Utilizes standard MTP connector as user interface

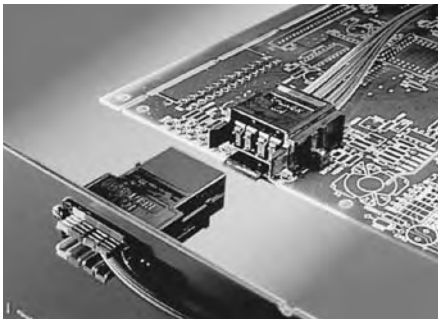
Applications

- High density blind mate interconnect for data and telecommunication applications
- Integrated optical and HDM electrical systems
- Total optical backplane solution when used with Molex's FlexPlane optical flex circuit

Number of Connectors	BMTP Backplane	BMTP Daughter Card	Arrangement
1 position	106186-0017	106086-5220	2 guide pins
2 position	106186-0021, 106185-0027	106086-5226	
3 position	106186-0022	106086-5221	1 guide pin with spacer
3 position	106186-0025	106086-5225	1 guide pin without spacer
4 position	106186-0013	106086-5213	2 guide pins with spacer

*MTP is a registered trademark of US Conec Ltd.
Note: BMTP connectors are offered as terminated cable assemblies only. Contact Molex sales for customized cable designs

High Density Backplane MT Interconnect System (HBMT)



Features and Benefits

- Patented dual shutter design for dust and eye safety protection
- Singlemode and multimode compatible
- Telcordia GR-1435-core compliant
- Generous mechanical float in the X, Y and Z axis
- Compatible with optical flex circuit technology
- Utilizes standard MT ferrule as the optical interface

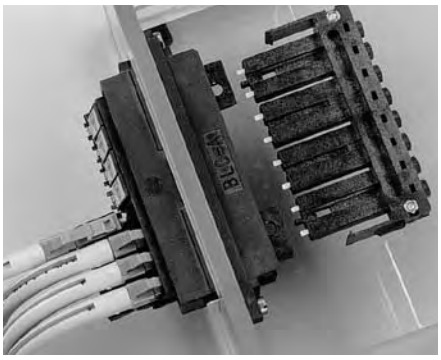
Applications

- High density blind mate interconnect for data and telecommunication systems
- Total optical backplane solution when used with Molex's FlexPlane optical flex circuit

Order No.	Type	Description
106105-0100	HBMT connector	HBMT daughter card connector housing, rivet mount
106105-1100		HBMT daughter card connector housing, screw mount
106105-2100		HBMT daughter card connector housing, rivet mount, floating
106105-0000	HBMT adapter	HBMT motherboard adapter housing, rivet mount
106105-1000		HBMT motherboard adapter housing, screw mount
106105-2000		HBMT motherboard adapter housing, screw mount, fixed

Note: HBMT connectors are offered as terminated cable assemblies only. Contact Molex sales for customized cable designs

LC Backplane Connector System (BLC)



Features and Benefits

- Small form factor LC interface: 1/2 scale of SC connector, RJ-45 latching, uses 1.25mm ferrule
- High performance: 2, 4 and 8 fiber terminations
- Discrete tunable ferrule
- Highly stable interconnect: connection isolated to daughtercard
- Generous axial alignment
- Built-in dust and eye protection
- Low insertion loss:
  < 0.20 dB typical MM
  < 0.15 dB typical SM

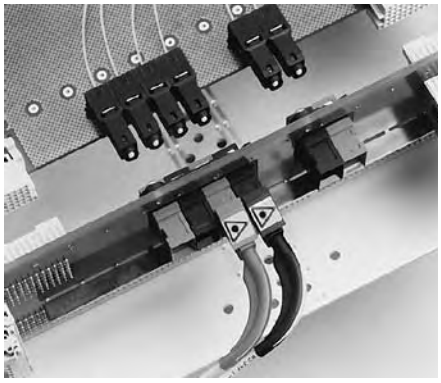
Applications

- Computing equipment
- Telecommunications equipment: transmission, switching, multiplexing
- Broadband equipment: amplifiers

Order No.	Type	Description
106045-5000	BLC Connector	Connector, 2 position, 126µm Singlemode Zirconia Ferrules for 900µm buffered fiber, color black
106044-5000		Connector, 4 position, 126µm Singlemode Zirconia Ferrules for 900µm buffered fiber, color black
106046-5000		Connector, 8 position, 126µm Singlemode Zirconia Ferrules for 900µm buffered fiber, color black
106045-3000		Connector, 2 position, 127µm Multimode Zirconia Ferrules for 900µm buffered fiber, color black
106044-3000		Connector, 4 position, 127µm Multimode Zirconia Ferrules for 900µm buffered fiber, color black
106046-3000		Connector, 8 position, 127µm Multimode Zirconia Ferrules for 900µm buffered fiber, color black
106048-5000	BLC/APC Connector	Connector, 2 position, 126µm Singlemode Zirconia APC Ferrules for 900µm buffered fiber, color green
106047-5000		Connector, 4 position, 126µm Singlemode Zirconia APC Ferrules for 900µm buffered fiber, color green
106049-5000		Connector, 8 position, 126µm Singlemode Zirconia APC Ferrules for 900µm buffered fiber, color green
106145-1100	BLC Adapter	Adapter, 2 position, Singlemode Zirconia Ceramic alignment sleeves, color black
106144-1100		Adapter, 4 position, Singlemode Zirconia Ceramic alignment sleeves, color black
106146-1100		Adapter, 8 position, Singlemode Zirconia Ceramic alignment sleeves, color black
106145-0100		Adapter, 2 position, Multimode Phosphor Bronze alignment sleeves, color black
106144-0100		Adapter, 4 position, Multimode Phosphor Bronze alignment sleeves, color black
106146-0100		Adapter, 8 position, Multimode Phosphor Bronze alignment sleeves, color black
106145-1500	BLC/APC Adapter	Adapter, 2 position, Singlemode APC Zirconia Ceramic alignment sleeves, color green
106144-1500		Adapter, 4 position, Singlemode APC Zirconia Ceramic alignment sleeves, color green
106146-1500		Adapter, 8 position, Singlemode APC Zirconia Ceramic alignment sleeves, color green

Note 1: BLC connectors are supplied in cable assembly form only
Note 2: Above connector part numbers are for reference drawing only, all assemblies will be assigned custom part numbers

SC Backplane Connector System (BSC/BSCII)



Features and Benefits

- System based on NTT-SC* standard
- System integrates: BSC or BSCII backplane connector, backplane adapter, NTT-SC standard connector
- Backplane connector: PC board mountable, blind mate coupling, removable ferrule assembly, stackable design for multiple channels, floating ferrule design is self-aligning, tunable feature for BSCII
- Backplane adapters: traditional SC style, SC style with shutter
- Low insertion loss:
  <0.20 dB typical MM
  <0.15 dB typical SM

Applications

- Telecommunications equipment: transmission, switching, multiplexing
- Broadband equipment: amplifiers
- Computing equipment

	Product	Order No.	Type	Description
BSC	Connectors	106070-3000	BSC Backplane Connector	128µm, MM, Zirconia PC ferrule, 900µm, buffered fiber
		106070-5000		126µm, SM, Zirconia PC ferrule, 900µm, buffered fiber
		106075-2000	BSC/APC Backplane Connector	125.5µm, SM, Zirconia PC ferrule, 900µm, buffered fiber
		106075-5000		126µm, SM, Zirconia PC ferrule, 900µm, buffered fiber
	Adapters	106170-0000	BSC Backplane Adapter	Singlemode Zirconia Ceramic alignment sleeve, black housing
		106171-0000		Multimode Phosphor Bronze alignment sleeve, black housing
		106170-0020	BSC/APC Backplane Adapter	Singlemode APC Zirconia Ceramic alignment sleeve, green housing
		106170-0030	BSC Backplane Adapter	Singlemode Zirconia Ceramic alignment sleeve, red housing
		106171-0030		Multimode Phosphor Bronze alignment sleeve, red housing
		106170-0400		Singlemode Zirconia Ceramic alignment sleeve, black housing with shutter
		106171-0400		Multimode Phosphor Bronze alignment sleeve, black housing with shutter
		106170-0420	BSC/APC Backplane Adapter	Singlemode APC Zirconia Ceramic alignment sleeve, green housing with shutter
		106170-0430	BSC Backplane Adapter	Singlemode Zirconia Ceramic alignment sleeve, red housing with shutter
		106171-0430		Multimode Phosphor Bronze alignment sleeve, red housing with shutter
BSCII	Connectors	106071-3000	BSCII Backplane Connector	128µm, MM, Zirconia PC ferrule, 900µm, buffered fiber
		106071-2300	BSCII Backplane Connector	125.5µm, SM, Zirconia PC ferrule, 900µm, buffered fiber
		106076-2300	BSCII/APC Backplane Connector	125.5µm, SM, Zirconia PC ferrule, 900µm, buffered fiber
		106076-5000	BSCII/APC Backplane Connector	126µm, SM, Zirconia PC ferrule, 900µm, buffered fiber
	Adapters	106170-2000	BSCII Backplane Adapter	Singlemode Zirconia Ceramic alignment sleeve, black housing
		106171-2000		Multimode Phosphor Bronze alignment sleeve, black housing
		106170-2030		Singlemode Zirconia Ceramic alignment sleeve, red housing
		106171-2030		Multimode Phosphor Bronze alignment sleeve, red housing
		106170-2400		Singlemode Zirconia Ceramic alignment sleeve, black housing with shutter
		106171-2400		Multimode Phosphor Bronze alignment sleeve, black housing with shutter
		106170-2430		Singlemode Zirconia Ceramic alignment sleeve, red housing with shutter
		106171-2430		Multimode Phosphor Bronze alignment sleeve, red housing with shutter

* NTT-SC is a trademark of NTT Advanced Technology Corporation

FC Connectors and Adapters



Features and Benefits

- Designed to NTT-FC* standards
- 1-piece body design: reduces termination time; field installable
- Pre-polished ceramic ferrules: Minimum polishing needed. Maintains endface geometry, physical contact
- Low insertion loss:
  < 0.15 dB typical SM
  < 0.34 dB typical MM
  < 0.17 dB typical MM enhanced

Applications

- Telecommunication networks
- CATV networks
- Active device termination
- Instrumentation

Order No.	Type	Description
106053-0000	FC Connector	127µm, MM, Zirconia PC+ ferrule, 3mm cable
106053-5000		126µm, SM, Zirconia PC ferrule, 3mm cable
106053-5500		126µm, SM, Zirconia PC ferrule, 900µm buffered fiber
106053-5400		126µm, SM, Zirconia PC ferrule, 90° yellow boot, 3mm cable
106053-0500		127µm, MM, PC+ ferrule, 900µm buffered fiber
106053-0400		127µm, MM, PC+ ferrule, 3mm 90° Boot
106152-0100	FC Adapter	Zirconia alignment sleeve, square mounting flange
106152-1000		Zirconia alignment sleeve, "D" hole mount
106156-1000		Phosphor Bronze alignment sleeve, "D" hole mount
106156-0100		Phosphor Bronze alignment sleeve, square mount flange

FC/APC (Angled Physical Contact) Connectors and Adapters



Features and Benefits

- NTT-FC† connector design
- 1-piece body design for quick and easy assembly
- Precision APC ferrule—superior performance
- Low insertion loss: < 0.25 dB typical SM
- Low return loss: < 60 dB
- Compatible with all APC hardware: Standard NTT-FC key Tight-fit key (compatible with other manufacturers)

Applications

- Telecommunication networks
- CATV networks

Order No.	Type	Description
106056-5000	FC/APC Connector	126µm, Zirconia APC ferrule, standard key, 3mm cable
106055-5000		126µm, Zirconia APC ferrule, tight-fit key, 3mm cable
106056-5500		126µm, Zirconia APC ferrule, standard key, 900µm buffered fiber
106055-5400		126µm, Zirconia APC ferrule, tight-fit key, 3mm cable, 90° green boot
106055-5500		126µm, Zirconia APC ferrule, tight-fit key, 900µm buffered fiber
106152-2000	FC/APC Adapter	Zirconia alignment sleeve, square mounting flange, tight-fit key
106152-3000		Zirconia alignment sleeve, "D" hole mount, tight-fit key

*† NTT-FC is a trademark of NTT Advanced Technology Corporation

ST Connectors and Adapters



Features and Benefits

- High performance singlemode and multimode pre-polished ferrules
- ST* compatible bayonet coupling
- Field installable
- Low insertion loss:
  <0.34 dB typical MM
  <0.17 dB typical MM enhanced
  <0.15 dB typical SM
- Variety of connector styles: straight 3mm boot, 90˚ boot and 900mm buffered fiber

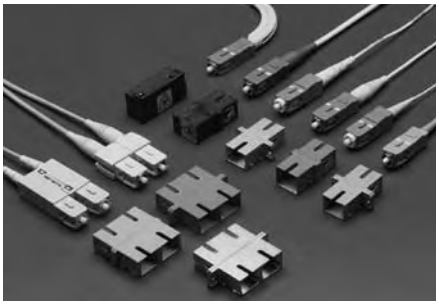
Applications

- Local Area Networks (LANs)
- Data processing networks
- Premise applications
- Instrumentation
- Telecommunications

Product	Order No.	Type	Description
ST Polymer Nut Connectors	106010-0200	ST Connector	Multimode 127µm PC+ Zirconia Ceramic ferrule, 3mm cable
	106010-0500		Multimode 127µm PC+ Zirconia Ceramic ferrule, for 900µm buffered fiber
	106010-0400		Multimode 127µm PC+ Zirconia Ceramic ferrule, 3mm cable, 90˚ boot
	106010-3200		Multimode 128µm PC Zirconia Ceramic ferrule, 3mm cable
	106010-3500		Multimode 128µm PC Zirconia Ceramic ferrule, for 900µm buffered fiber
	106010-3400		Multimode 128µm PC Zirconia Ceramic ferrule, 3mm cable, 90˚ boot
	106010-5200		Singlemode 126µm Zirconia Ceramic ferrule, 3mm cable
	106010-5500		Singlemode 126µm Zirconia Ceramic ferrule, for 900µm buffered fiber
	106010-5400		Singlemode 126µm Zirconia Ceramic ferrule, 3mm cable, 90˚ boot
ST Metal Nut Connectors	106012-0200		Multimode 127µm PC+ Zirconia Ceramic ferrule, 3mm cable
	106012-0500		Multimode 127µm PC+ Zirconia Ceramic ferrule, for 900µm buffered fiber
	106012-0400		Multimode 127µm PC+ Zirconia Ceramic ferrule, 3mm cable, 90˚ boot
	106012-3200		Multimode 128µm PC Zirconia Ceramic ferrule, 3mm cable
	106012-3500		Multimode 128µm PC Zirconia Ceramic ferrule, for 900µm buffered fiber
	106012-3400		Multimode 128µm PC Zirconia Ceramic ferrule, 3mm cable, 90˚ boot
	106012-5200		Singlemode 126µm Zirconia Ceramic ferrule, 3mm cable
	106012-5500		Singlemode 126µm Zirconia Ceramic ferrule, for 900µm buffered fiber
	106012-5400		Singlemode 126µm Zirconia Ceramic ferrule, 3mm cable, 90˚ boot
ST Adapters	106110-0000	ST Adapter	Singlemode Zirconia Ceramic alignment sleeve, polymer body
	106112-0000		Multimode Phosphor Bronze alignment sleeve, polymer body
	106113-0000		Multimode Polymer alignment sleeve, polymer body
	106110-1000		Singlemode Zirconia Ceramic alignment sleeve, metal body
	106112-1000		Multimode Phosphor Bronze alignment sleeve, metal body
	106113-1000		Multimode Polymer alignment sleeve, metal body

* ST is a trademark of OFS

SC Connectors and Adapters



Features and Benefits

- Pre-assembled body design reduces termination time
- Field installable
- Pre-polished ceramic ferrules: minimizes polishing time
  Maintains endface geometry, physical contact
- Tunable
- Meets EIA/TIA, IEC and NTT-SC* standards
- Three adapter styles: industry standard, small flanged and shuttered
- Low insertion loss:
  < 0.15 dB typical SM
  < 0.34 dB typical MM
  < 0.17 dB typical MM enhanced

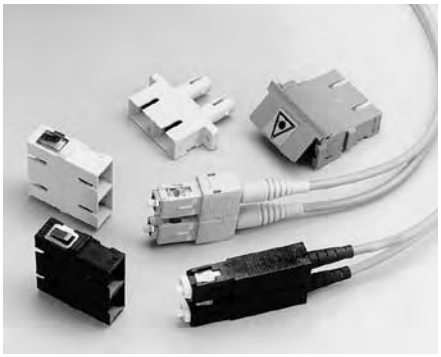
Applications

- Telecommunication networks
- CATV networks
- Data communication networks
- Active device termination

Product	Order No.	Type	Description
One Piece SC Simplex Connectors	106063-0060	SC Simplex Connector	Multimode 127µm PC+ Zirconia Ceramic ferrule, 3mm cable, color beige
	106063-0560		Multimode 127µm PC+ Zirconia Ceramic ferrule, for 900µm buffered fiber, color beige
	106063-0460		Multimode 127µm PC+ Zirconia Ceramic ferrule, 3mm cable, color beige, 90° boot
	106063-3060		Multimode 128µm PC Zirconia Ceramic ferrule, 3mm cable, color beige
	106063-3560		Multimode 128µm PC Zirconia Ceramic ferrule, for 900µm buffered fiber, color beige
	106063-3460		Multimode 128µm PC Zirconia Ceramic ferrule, 3mm cable, color beige, 90° boot
	106063-5000		Singlemode 126µm Zirconia Ceramic ferrule, 3mm cable, color blue
	106063-5500		Singlemode 126µm Zirconia Ceramic ferrule, for 900µm buffered fiber, color blue
	106063-5400		Singlemode 126µm Zirconia Ceramic ferrule, 3mm cable, color blue, 90° boot
Tunable SC Simplex Connectors	106032-0060		Multimode 127µm PC+ Zirconia Ceramic ferrule, 3mm cable, color beige
	106032-0960		Multimode 127µm PC+ Zirconia Ceramic ferrule, 2mm cable, color beige
	106032-0160		Multimode 127µm PC+ Zirconia Ceramic ferrule, 1.6mm cable, color beige
	106032-0560		Multimode 127µm PC+ Zirconia Ceramic ferrule, for 900µm buffered fiber, color beige
	106032-3060		Multimode 128µm PC Zirconia Ceramic ferrule, 3mm cable, color beige
	106032-3960		Multimode 128µm PC Zirconia Ceramic ferrule, 2mm cable, color beige
	106032-3160		Multimode 128µm PC Zirconia Ceramic ferrule, 1.6mm cable, color beige
	106032-3560		Multimode 128µm PC Zirconia Ceramic ferrule, for 900µm buffered fiber, color beige
	106032-5000		Singlemode 126µm Zirconia Ceramic ferrule, 3mm jacketed cable, color blue
	106032-5900		Singlemode 126µm Zirconia Ceramic ferrule, 2mm jacketed cable, color blue
	106032-5100		Singlemode 126µm Zirconia Ceramic ferrule, 1.6mm jacketed cable, color blue
	106032-5500		Singlemode 126µm Zirconia Ceramic ferrule, for 900µm buffered fiber, color blue
SC Simplex Adapters	106161-0000	SC Simplex Adapter	Singlemode Zirconia Ceramic alignment sleeve, color blue, screw mount
	106160-5000		Multimode Phosphor Bronze alignment sleeve, color beige, screw mount
	106170-0150		Singlemode Zirconia Ceramic alignment sleeve, color blue, snap mount
	106171-0100		Multimode Phosphor Bronze alignment sleeve, color black, snap mount
	106161-0500		Singlemode Zirconia Ceramic alignment sleeve, color blue, screw mount, with shutter
	106170-0550		Singlemode Zirconia Ceramic alignment sleeve, color blue, snap mount, with shutter
	106171-0500		Multimode Phosphor Bronze alignment sleeve, color black, snap mount, with shutter

* NTT-SC is a trademark of NTT Advanced Technology Corporation

SC Duplex Connectors and Adapters



Features and Benefits

- Utilizes standard NTT-SC* connectors
- Meets EIA/TIA 568A and IEC 874-19 standards
- Easy to assemble 1-piece SC connector body
- Low insertion loss:
  < 0.15 dB typical SM
  < 0.34 dB typical MM
  < 0.17 dB typical MM enhanced
- Rugged duplex housing provides uniform and smooth mating
- Optional adapter styles: SC to SC and SC to ST† snap mount or flange mount

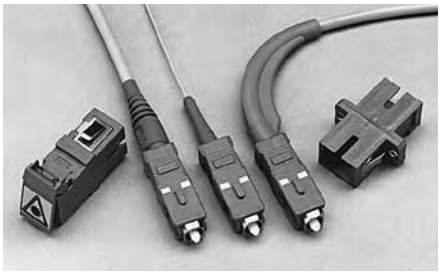
Applications

- Telecommunication networks
- Data communication networks
- Fibre Channel

Product	Order No.	Type	Description
SC Duplex Connectors	106066-0000	Duplex SC Connector	Multimode 127µm PC+ Zirconia Ceramic ferrule, 3mm cable, color beige
	106066-3000		Multimode 128µm PC Zirconia Ceramic ferrule, 3mm cable, color beige
	106066-5000		Singlemode 126µm Zirconia Ceramic ferrule, 3mm cable, color blue
SC Duplex Connectors (Fibre Channel)	106034-0000	SC Duplex Fibre Channel Connector	Multimode 127µm PC+ Zirconia Ceramic ferrule, 3mm cable, color beige
	106034-0900		Multimode 127µm PC+ Zirconia Ceramic ferrule, 2mm cable, color beige
	106034-0100		Multimode 127µm PC+ Zirconia Ceramic ferrule, 1.6mm cable, color beige
	106034-3000		Multimode 128µm PC Zirconia Ceramic ferrule, 3mm cable, color beige
	106034-3900		Multimode 128µm PC Zirconia Ceramic ferrule, 2mm cable, color beige
	106034-3100		Multimode 128µm PC Zirconia Ceramic ferrule, 1.6mm cable, color beige
	106034-5000		Singlemode 126µm Zirconia Ceramic ferrule, 3mm cable, color blue
	106034-5900		Singlemode 126µm Zirconia Ceramic ferrule, 2mm cable, color blue
	106034-5100		Singlemode 126µm Zirconia Ceramic ferrule, 1.6mm cable, color blue
SC Duplex Adapters	106167-0110	SC Duplex Adapter	Multimode Phosphor Bronze alignment sleeve, color beige, snap mount
	106167-0010		Multimode Phosphor Bronze alignment sleeve, color beige, screw mount
	106166-0100		Singlemode Zirconia Ceramic alignment sleeve, color blue, snap mount
	106166-0000		Singlemode Zirconia Ceramic alignment sleeve, color blue, screw mount
	106167-0610		Multimode Phosphor Bronze alignment sleeve, color beige, snap mount, with shutter
	106167-0510		Multimode Phosphor Bronze alignment sleeve, color beige, screw mount, with shutter
	106166-0600		Singlemode Zirconia Ceramic alignment sleeve, color blue, snap mount, with shutter
	106166-0500		Singlemode Zirconia Ceramic alignment sleeve, color blue, screw mount, with shutter
SC-ST Duplex Adapters	106167-1110	SC-ST Duplex Adapter	Multimode Phosphor Bronze alignment sleeve, color beige, snap mount
	106167-1010		Multimode Phosphor Bronze alignment sleeve, color beige, screw mount
	106166-1100		Singlemode Zirconia Ceramic alignment sleeve, color blue, snap mount
	106166-1000		Singlemode Zirconia Ceramic alignment sleeve, color blue, screw mount
	106167-1610		Multimode Phosphor Bronze alignment sleeve, color beige, snap mount, with shutter
	106167-1510		Multimode Phosphor Bronze alignment sleeve, color beige, screw mount, with shutter
	106166-1600		Singlemode Zirconia Ceramic alignment sleeve, color blue, snap mount, with shutter
	106166-1500		Singlemode Zirconia Ceramic alignment sleeve, color blue, screw mount, with shutter

* NTT-SC is a trademark of NTT Advanced Technology Corporation
† ST is a trademark of Lucent Technologies

SC/APC (Angled Physical Contact) Connectors and Adapters



Features and Benefits

- 1-piece body design: minimizes termination time, field installable
- Meets NTT-SC* standard
- APC ferrule provides superior performance
  Low insertion loss: <0.25 dB typical
  Low return loss: >60 dB typical
- Zirconia ceramic and Phosphor Bronze sleeves
- Shuttered adapters: shield against exposure to laser radiation; dust cover for unused ports

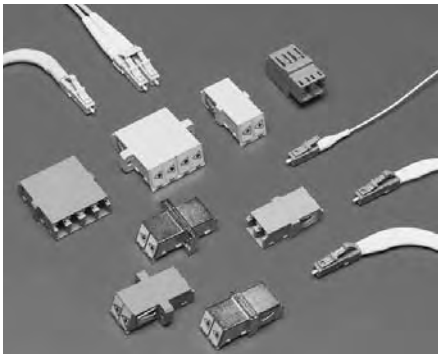
Applications

- Telecommunication networks
- CATV networks

Product	Order No.	Type	Description
Simplex SC/APC	106065-5000	SC/APC Simplex Connector	Singlemode APC 126µm Zirconia Ceramic ferrule, 3mm cable, color green
	106065-5500		Singlemode APC 126µm Zirconia Ceramic ferrule, for 900µm buffered fiber, color green
	106161-3000	SC/APC Simplex Adapter	Singlemode APC Zirconia Ceramic alignment sleeve, color green, screw mount
	106170-0120		Singlemode APC Zirconia Ceramic alignment sleeve, color green, snap mount
	106161-3500		Singlemode APC Zirconia Ceramic alignment sleeve, color green, screw mount, with shutter
	106170-0520		Singlemode APC Zirconia Ceramic alignment sleeve, color green, snap mount, with shutter
Duplex SC/APC	106060-5000	SC/APC Duplex Connector	Singlemode APC 126µm Zirconia Ceramic ferrule, 3mm cable, color green
	106166-0150	SC/APC Duplex Adapter	Singlemode APC Zirconia Ceramic alignment sleeve, color green, snap mount
	106166-0050		Singlemode APC Zirconia Ceramic alignment sleeve, color green, screw mount
	106166-0650		Singlemode APC Zirconia Ceramic alignment sleeve, color green, snap mount, with shutter
	106166-0550		Singlemode APC Zirconia Ceramic alignment sleeve, color green, screw mount, with shutter

* NTT-SC is a trademark of NTT Advanced Technology Corporation

LC Connectors and Adapters



Features and Benefits

- Versatile RJ-45 latching connector system
- Zirconia 1.25mm ceramic ferrule
- Tunable: optimizes insertion loss performance
- Simplex and duplex styles
- GR 326 tested

Applications

- Telecommunication and data communication equipment
- Local Area Networks (LANs)
- Wide Area Networks (WANs)
- Device terminations
- Premise distribution

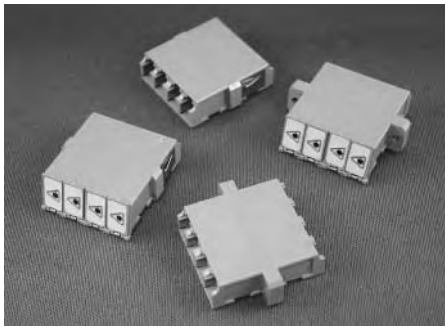
Product	Order No.	Type	Description
Connectors	106024-3500	LC Simplex Connector	Multimode 127µm Zirconia Ceramic ferrule, for 900µm buffered fiber, color beige
	106024-3000		Multimode 127µm Zirconia Ceramic ferrule, 1.6mm jacketed cable, color beige
	106024-3300		Multimode 127µm Zirconia Ceramic ferrule, 2mm jacketed cable, color beige
	102024-3250		Multimode 127µm Zirconia Ceramic ferrule, 3mm jacketed cable, color beige
	106024-3400		Multimode 127µm Zirconia Ceramic ferrule, 1.6mm jacketed cable, color beige, 90° boot
	106024-3600		Multimode 127µm Zirconia Ceramic ferrule, 2mm jacketed cable, color beige, 90° boot
	106024-7180		Multimode 127µm Zirconia Ceramic ferrule, 1.6mm jacketed cable, color beige, 45° boot
	106024-7185		Multimode 127µm Zirconia Ceramic ferrule, 2mm jacketed cable, color beige, 45° boot
	106024-5500		Singlemode 126µm Zirconia Ceramic ferrule, for 900µm buffered fiber, color blue
	106024-5000		Singlemode 126µm Zirconia Ceramic ferrule, 1.6mm jacketed cable, color blue
	106024-5300		Singlemode 126µm Zirconia Ceramic ferrule, 2mm jacketed cable, color blue
	106024-5250		Singlemode 126µm Zirconia Ceramic ferrule, 3mm jacketed cable, color blue
	106024-5400		Singlemode 126µm Zirconia Ceramic ferrule, 1.6mm jacketed cable, color blue, 90° boot
	106024-5600		Singlemode 126µm Zirconia Ceramic ferrule, 2mm jacketed cable, color blue, 90° boot
	106024-7140		Singlemode 126µm Zirconia Ceramic ferrule, 1.6mm jacketed cable, color blue, 45° boot
	106024-7145		Singlemode 126µm Zirconia Ceramic ferrule, 2mm jacketed cable, color blue, 45° boot
	106025-3000	LC Duplex Connector	Multimode 127µm Zirconia Ceramic ferrule, 1.6mm jacketed cable, color beige
	106025-3300		Multimode 127µm Zirconia Ceramic ferrule, 2mm jacketed cable, color beige
	106025-3250		Multimode 127µm Zirconia Ceramic ferrule, 3mm jacketed cable, color beige
	106025-3400		Multimode 127µm Zirconia Ceramic ferrule, 1.6mm jacketed cable, color beige, 90° boot
	106025-3600		Multimode 127µm Zirconia Ceramic ferrule, 2mm jacketed cable, color beige, 90° boot
	106025-7470		Multimode 127µm Zirconia Ceramic ferrule, 2mm jacketed cable, color beige, Tight 90° beige boot
	106025-7471		Multimode 127µm Zirconia Ceramic ferrule, 2mm jacketed cable, color beige, Tight 90° white boot
	106025-7180		Multimode 127µm Zirconia Ceramic ferrule, 1.6mm jacketed cable, color beige, 45° boot
	106025-7185		Multimode 127µm Zirconia Ceramic ferrule, 2mm jacketed cable, color beige, 45° boot
	106025-3800		Multimode 127µm Zirconia Ceramic ferrule, 2mm jacketed cable, color beige, 2-piece duplex clip
	106025-3150		Multimode 127µm Zirconia Ceramic ferrule, 3mm jacketed cable, color beige, 2-piece duplex clip
	106025-5000		Singlemode 126µm Zirconia Ceramic ferrule, 1.6mm jacketed cable, color blue
	106025-5250		Singlemode 126µm Zirconia Ceramic ferrule, 3mm jacketed cable, color blue
	106025-5300		Singlemode 126µm Zirconia Ceramic ferrule, 2mm jacketed cable, color blue
	106025-5400		Singlemode 126µm Zirconia Ceramic ferrule, 1.6mm jacketed cable, color blue, 90° boot
	106025-5600		Singlemode 126µm Zirconia Ceramic ferrule, 2mm jacketed cable, color blue, 90° boot
	106025-7454		Singlemode 126µm Zirconia Ceramic ferrule, 2mm jacketed cable, color blue, Tight 90° white boot
	106025-7140		Singlemode 126µm Zirconia Ceramic ferrule, 1.6mm jacketed cable, color blue
	106025-7145		Singlemode 126µm Zirconia Ceramic ferrule, 2mm jacketed cable, color blue, 45° boot
	106025-5800		Singlemode 126µm Zirconia Ceramic ferrule, 2mm jacketed cable, color blue, 2-piece duplex clip
	106025-5150		Singlemode 126µm Zirconia Ceramic ferrule, 3mm jacketed cable, color blue, 2-piece duplex clip
	106025-2320	LC Duplex Single Boot Connector	Singlemode 125.5µm Zirconia Ceramic ferrule, 3.3mm jacketed duplex cable, color blue, Single cable boot
	106025-2370		Singlemode 125.5µm Zirconia Ceramic ferrule, 3.3mm jacketed duplex cable, color blue, 90° Single cable boot
	106025-2360		Multimode 127µm Zirconia Ceramic ferrule, 3.3mm jacketed duplex cable, color beige, Single cable boot
	106025-2380		Multimode 127µm Zirconia Ceramic ferrule, 3.3mm jacketed duplex cable, color beige, 90° Single cable boot

LC Connectors and Adapters

Product	Order No.	Type	Description
Polymer Body Adapters	106124-0010	LC Simplex Adapter	Multimode Phosphor Bronze alignment sleeve, color beige, snap mount
	106124-1000		Singlemode Zirconia Ceramic alignment sleeve, color blue, snap mount
	106124-1200		Multimode Zirconia Ceramic alignment sleeve, color Aqua, snap mount
	106124-1050		Singlemode APC Zirconia Ceramic alignment sleeve, color Green, snap mount
	106125-0110	LC Duplex Adapter	Multimode Phosphor Bronze alignment sleeves, color beige, large mounting hole snap mount
	106125-1100		Singlemode Zirconia Ceramic alignment sleeves, color blue, large mounting hole snap mount
	106125-0010		Multimode Phosphor Bronze alignment sleeves, color beige, low profile snap mount
	106125-1000		Singlemode Zirconia Ceramic alignment sleeves, color blue, low profile snap mount
	106125-0210		Multimode Phosphor Bronze alignment sleeves, color beige, retainer mount
	106125-1200		Singlemode Zirconia Ceramic alignment sleeves, color blue, retainer mount
	106126-1400		Singlemode Zirconia Ceramic Alignment sleeves, color blue, SC style snap mount
	106126-0410		Multimode Phosphor Bronze alignment sleeves, color beige, SC style snap mount
	106126-1450		Singlemode APC Zirconia Ceramic Alignment sleeves, color green, SC style snap mount
	106126-1300		Singlemode Zirconia Ceramic Alignment sleeves, color blue, SC style screw mount
	106126-0310		Multimode Phosphor Bronze alignment sleeves, color beige, SC style screw mount
	106126-1350		Singlemode APC Zirconia Ceramic Alignment sleeves, color green, SC style screw mount
	106127-1400		Singlemode Zirconia Ceramic Alignment sleeves, color blue, SC style snap mount, with shutters
	106127-0410		Multimode Phosphor Bronze alignment sleeves, color beige, SC style snap mount, with shutters
	106127-1450		Singlemode APC Zirconia Ceramic Alignment sleeves, color green, SC style snap mount, with shutters
	106127-1300		Singlemode Zirconia Ceramic Alignment sleeves, color blue, SC style screw mount, with shutters
	106127-0310		Multimode Phosphor Bronze alignment sleeves, color beige, SC style screw mount, with shutters
	106127-1350		Singlemode APC Zirconia Ceramic Alignment sleeves, color green, SC style screw mount, with shutters
	106127-1610		Multimode Phosphor Bronze alignment sleeves, color Aqua, SC style snap mount, with shutters
Metal Body Adapters	106126-1690	LC Duplex Adapter	Singlemode Zirconia Ceramic Alignment sleeves, metal body, SC style snap mount
	106126-0690		Multimode Phosphor Bronze alignment sleeves, metal body, SC style snap mount
	106126-1590		Singlemode Zirconia Ceramic Alignment sleeves, metal body, SC style screw mount
	106126-0590		Multimode Phosphor Bronze alignment sleeves, metal body, SC style screw mount
	106127-1690		Singlemode Zirconia Ceramic Alignment sleeves, metal body, SC style snap mount, with shutters
	106127-0690		Multimode Phosphor Bronze alignment sleeves, metal body, SC style snap mount, with shutters
	106127-1590		Singlemode Zirconia Ceramic Alignment sleeves, metal body, SC style screw mount, with shutters
	106127-0590		Multimode Phosphor Bronze alignment sleeves, metal body, SC style screw mount, with shutters

Quad LC Optical Adapter

106123 Series



Molex's new Quad LC Adapter provides multiple connection options from a single adapter

Designed for high-density applications, Molex's Quad LC Adapter provides a 4-position LC adapter solution. Four LC ports are provided in 1 adapter, allowing for multiple LC connectors to be mated within the adapter. Connection options include 4 simplex LC connectors, 2 simplex and 1 duplex LC connectors or 2 duplex LC connectors.

The quad LC adapter is available in either a snap-mount or screw-mount installation style. Individual shutters on one side of the adapter are available as an eye-safety option, providing protection even when the adapter is not fully populated. The adapter is available with either Phosphor Bronze or Zirconia Ceramic alignment sleeves to accommodate either single mode, multimode or Angle Polish (APC) connectors. Mounting dimensions of the quad LC adapter are identical to the duplex SC adapter and can be used as a direct drop-in replacement.

Features and Benefits

- Four LC ports, which provide multiple simplex or duplex connection options
- Ceramic or Phosphor Bronze alignment sleeves which accommodates single mode and multimode operation
- Safety shutters available to prevent eye injury when a connector is not installed
- Snap or screw-style mounting, which allows for installation flexibility
- SC duplex compatible mounting to provide a direct drop-in replacement solution for density upgrade

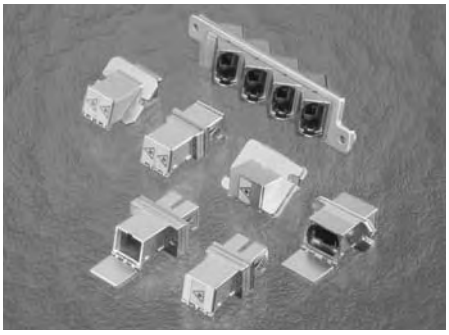
Applications

- Telecommunications
  - Hubs
  - Servers
  - Routers
- Other Markets
  - Optical DVI
  - Storage servers
  - Local Area Networks (LANs)
  - Premise distribution

Order No.	Mode	Alignment Sleeve	Mounting Style	Housing Color	Shutters
106123-0200	Singlemode	Zirconia Ceramic	Screw	Blue	Yes
106123-1200	Multimode	Phosphor Bronze		Beige	
106123-2200	Singlemode	Zirconia Ceramic		Green	
106123-3200	Multimode	Phosphor Bronze		Aqua	
106123-0400	Singlemode	Zirconia Ceramic	Snap	Blue	
106123-1400	Multimode	Phosphor Bronze		Beige	
106123-2400	Singlemode	Zirconia Ceramic		Green	
106123-3400	Multimode	Phosphor Bronze		Aqua	
106123-0100	Singlemode	Zirconia Ceramic	Screw	Blue	No
106123-1100	Multimode	Phosphor Bronze		Beige	
106123-2100	Singlemode	Zirconia Ceramic		Green	
106123-3100	Multimode	Phosphor Bronze		Aqua	
106123-0300	Singlemode	Zirconia Ceramic	Snap	Blue	
106123-1300	Multimode	Phosphor Bronze		Beige	
106123-2300	Singlemode	Zirconia Ceramic		Green	
106123-3300	Multimode	Phosphor Bronze		Aqua	

Fiber Optic EMI Adapters

106114 - MPO
106115 - LC
106116 - SC



EMI (Electro Magnetic Interference) shielding adapters are designed to address mechanical designers' requirements to limit EMI emissions from the equipment front panel. The adapters are constructed of diecast bodies with an EMI gasket that seals the adapters to the panel. EMI adapters increase the shielding effectiveness while enhancing the front panel aesthetics compared to traditional plastic adapters.

Our extensive adapter product line includes SC, LC and MPO styles. The family includes both straight- and angled-mount versions in both snap-in and screw-mount configurations. The straight-mount designs meet industry standard mounting dimensions. The angled mounting design cut-outs are unique to each adapter. LC adapters are available in duplex and quad configurations, SC and MPO adapters are available in simplex configurations, with the MPO style also available in a quad pack configuration. External shutters are standard on most adapters, ensuring dust protection and eye laser safety.

Features and Benefits

- Diecast adapter housing provides greater than -50dB shielding effectiveness at 4Ghz
- Aperture is reduced to the lowest possible size permitted by the connector ferrule profile, minimizing EMI
- EMI gasket provides an EMI seal from the adapter to the panel
- Shutters are included with most styles to provide dust protection and eye safety
- Screw or snap mount style adapters provide mounting flexibility
- Mounting orientation available as straight or 45˚ angled, allowing for lower cable exit profile

Applications

- Telecommunication equipment
- Datacommunication equipment
- Any front panel application where EMI is an issue
- Test Equipment
  -Offers a more robust and visually appealing adapter than traditional plastic adapters

Physical

Adapter Body Material: Zinc diecast/polymer
Plating: Electroless Nickel
Housing: UL 94V-0

Reference Information

Mates With: Industry standard fiber optic connectors

Order No.	Type	Description
106116-2000	SC EMI Adapter	Zirconia Ceramic Alignment Sleeve, Snap Mount, with shutters on one side
106116-2200		Phosphor Bronze Alignment Sleeve, Snap Mount, with shutters on one side
106116-2100		Zirconia Ceramic Alignment Sleeve, Screw Mount, with shutters on one side
106116-2400		Phosphor Bronze Alignment Sleeve, Screw Mount, with shutters on one side
106116-4500		Zirconia Ceramic Alignment Sleeve, 45˚ angled Single Screw Rear Mount, with shutters on one side
106116-4510		Phosphor Bronze Alignment Sleeve, 45˚ angled Single Screw Rear Mount, with shutters on one side
106116-1000	SC Duplex EMI Adapter	Zirconia Ceramic Alignment Sleeve, Screw Mount, with shutters on one side
106114-1100	MPO EMI Adapter	Screw Mount with shutter on one side
106114-1200		Snap Mount with shutter on one side
106114-3000		Screw Mount with shutter on one side, 45˚ Angled
106114-4000		Snap Mount with shutter on one side, 45˚ Angled
106114-0100		Single Screw, Rear Mount with Shutter on one side, 45˚ Angled
106114-3200	MPO Quad EMI Adapter	Screw Mounted, 4 port ganged, 45˚ angled Sawtooth style
106115-3100	LC Duplex EMI Adapter	Zirconia Ceramic Alignment Sleeves, Screw Mount, Shutters on one side, 45˚ angled
106115-3106		Phosphor Bronze Alignment Sleeves, Screw Mount, Shutters on one side, 45˚ angled
106115-1100	LC Duplex EMI Adapter	Zirconia Ceramic Alignment Sleeves, Screw Mount
106115-1106		Phosphor Bronze Alignment Sleeves, Screw Mount
106115-1110		Zirconia Ceramic Alignment Sleeves, Screw Mount, Shutters on one side
106115-1120		Zirconia Ceramic Alignment Sleeves, Screw Mount, Shutters on both sides
106115-1126		Phosphor Bronze Alignment Sleeves, Screw Mount, Shutters on both sides
106115-2100		Zirconia Ceramic Alignment Sleeves, Snap Mount
106115-2106		Phosphor Bronze Alignment Sleeves, Snap Mount
106115-2110		Zirconia Ceramic Alignment Sleeves, Snap Mount, Shutters on one side
106115-2116		Phosphor Bronze Alignment Sleeves, Snap Mount, Shutters on one side
106115-2120		Zirconia Ceramic Alignment Sleeves, Snap Mount, Shutters on both sides
106115-2126		Phosphor Bronze Alignment Sleeves, Snap Mount, Shutters on both sides
106115-3200		Zirconia Ceramic Alignment Sleeves, Single Screw Rear Mount, Shutters on one side, 45˚ mount
106115-3206		Phosphor Bronze Alignment Sleeves, Single Screw Rear Mount, Shutters on one side, 45˚ mount
106115-4100		Zirconia Ceramic Alignment Sleeves, Snap Mount, Shutters on one side, 45˚ angled
106115-4107		Phosphor Bronze Alignment Sleeves, Snap Mount, Shutters on one side, 45˚ angled
106115-3201	LC/APC Duplex EMI Adapter	Zirconia Ceramic Alignment Sleeves, Single Screw Mount, Shutters on one side, 45˚ mount, Green
106115-5100		Zirconia Ceramic Alignment Sleeves, Screw Mount, Shutters on one side, 45˚ angled, Green
106115-6100		Zirconia Ceramic Alignment Sleeves, Snap Mount, Shutters on one side, 45˚ angled, Green
106123-0500	LC Quad EMI Adapter	Zirconia Ceramic Alignment Sleeves, Snap Mount, Shutters on one side
106123-0600		Zirconia Ceramic Alignment Sleeves, Screw Mount, Shutters on one side, Front mount
106123-0700		Zirconia Ceramic Alignment Sleeves, Screw Mount, Shutters on one side, Rear mount
106100-9000	Multi-Format EMI Adapter	Zirconia Ceramic Alignment Sleeves, Single Screw Mount, Internal Shutters, 45˚ mount (LC/MU/LX.5)

Small Multimedia Interface (SMI) Optical Interconnects

106108 Transceiver
501266 Adapter
88531 Cable Assemblies
85994 Tooling Kit



1- SMI adapter 2- AMI connector inner housing 3- SMI connector outer housing 4- SMI connector POF cable clamp 5- SMI through-hole transceiver 6- Assembled SMI connector 7- SMI surface-mount lead transceiver

Features and Benefits

- Non-metallic POF cabling interconnects are immune to EMI and RFI, lightweight and easy to handle
- Push-pull positive latching with safe-release mechanism for consumer applications offer secure, safe and easy mate de-mate
- Easy no-epoxy, no-polish, field-termination process with specialized tooling has quick, simple, easy field terminations for installers
- Data speeds up to 250 Mbps over 50 meters to provide high-speed, long distance signals for IEEE1394 and Ethernet applications
- SMI transceiver with digital integrated fiber optic transmit (Tx) and receive (Rx) modules, and integrated digital signaling reduces board layout requirements, minimizing design requirements
- Available in IEEE1394 and Ethernet 10 to 100 Mbps versions which provides increased versatility and market applications
- Designed to IEC-671754-21 SMI interface standard

Reference Information

Packaging: Tray, 50 per
Mates With:
Transceiver—106108 series
Adapter—501266 series
Cable Assemblies—88531 series
Designed In: Millimeters

Optical

Insertion loss: 2.0 dB max.
Plastic Optical Fiber Compatibility: SI 0.3 and 0.5NA

Electrical

Data Rate:
S200 IEEE1394 (250 Mbps)
10/100 Ethernet (125 Mbps)
Industrial Datalink (250 Mbps)
Distance: 50.00m (164.041')

Mechanical

Insertion Force: SMI connector-to-transceiver—29.4N (3.0 kgf) max.
Extraction Force: SMI connector-to-transceiver—4.9N to 29.N (0.5 to 3.0 kgf) max.
Durability: 500 cycles

Physical

Housing: High-temperature thermo plastic
Plating:
Solder Tail Area—Tin
Underplating—Nickel
Shelf Life: 12 months in sealed, un-opened bag with desiccants

Transceiver

Order No.	PCB Mounting Style	Signalling Type
106108-2100	Through Hole	IEEE 1394 integrated digital FOT S200
106108-2200	Surface Mount	
106108-3100	Through Hole	Ethernet integrated digital FOT S200
106108-3200	Surface Mount	
106108-4100	Through Hole	Industrial Datalink IDL 300K
106108-4200	Surface Mount	

Cable Assemblies

Order No.	Cable Type	Length
88531-9800	2.20mm diameter zip cord 0.30 Numerical Aperture	1.00m (3.280')
88531-9801		2.00m (6.561')
88531-9802		3.00m (9.842')
88531-9803		5.00m (16.404')
88531-9804		10.00m (32.808')
88531-9805		20.00m (65.616')
88531-9806		30.00m (98.425')
88531-9807		50.00m (164.041')

Adapter

Order No.	End-to-End
501266-0000	SMI-to-SMI

Media Converter Kit

Order No.	Description
106108-8010	Media converter with SMI ethernet, EU power supply, 6" Category 5 cables
106108-8020	Media converter with SMI ethernet, US power supply, 6" Category 5 cables
106108-8030	Media converter with OptaLock ethernet 1.50mm black, EU power supply, 6" Category 5 cables
106108-8040	Media converter with OptaLock ethernet 1.50mm black, US power supply, 6" Category 5 cables
106108-8050	Media converter with OptaLock ethernet 2.20mm black, EU power supply, 6" Category 5 cables
106108-8060	Media converter with OptaLock ethernet 2.20mm black, US power supply, 6" Category 5 cables

Tooling

Order No.	Component	Contents
85994-0212	Field Termination Kit	50 SMI connectors, termination tooling
85994-0214	Replacement Cutter	Replacement cutting head for hand-termination tool
106108-6004	Bulk Pack	50 SMI connectors

Universal Optical Adapter

106154



Populate multiple optical-connector interfaces with Molex's Universal Optical Adapter

The Universal Optical Adapter allows customers to interchange one half of the optical interface to suite the application. All of the functionality and performance benefits from a standard optical adapter are maintained in this versatile design. he universal optical adapters are now available with more options, including die-cast LC housing and interchangeable LC user interfaces.

The universal adapter allows for a common panel-mounting hole with the option of either an internally mounted SC or LC connector to be mated with a SC, ST, FC or LC connector on the opposite side. This design allows the user interface to be converted between the four connector styles as needed. The universal adapter can also be used to mate SC/APC (angle-polished endface) to SC/APC and FC/APC terminations. When the customer interface is removed, the alignment sleeve may be easily extracted, exposing the ferrule and endface of the internally-mounted SC or LC connector. With the sleeve removed, the customer has access to clean the internally mated connector without disconnecting it from the adapter and without entering the enclosure, providing a safe and fast method to ensure proper optical performance.

The universal optical adapter is offered in two options, as a pre-assembled adapter as well as individual components, providing the OEM design flexibility.

The first option, pre-assembled adapters, are provided ready to install and use. The second option is to only populate the internal-adapter side, allowing customized configuration prior to shipping or by the customer after delivery. Electro Magnetic Interference (EMI) shielding is available on select adapters.

Both options use a common SC or LC interface with the same mounting detail, benefiting OEM's by minimizing the number of panel designs required for different-style adapters. In addition, simplified stock management will result with fewer part numbers and stock quantities.

Features and Benefits

- Die-cast SC and LC panel housing with EMI shielding provides EMI and Radio Frequency Interference (RFI) shielding on the internal SC and LC adapter side
- Interchangeable SC, ST, FC and LC user interfaces allows fast and easy conversion for multiple applications
- Easy front-access to the alignment sleeve and internally mated connector endface allows easy inspection and cleaning without entering the enclosure
- Available as individual components allows for customized configuration prior to shipping or after delivery to customer

Reference Information

Packaging: Individual bag or tray
Mates With: Connectors:
SC Tunaable, Series 106032
SC Non-tunable, Series 106063
SC/APC, Series 106065
FC, Series 106053
FC/APC, Series 106055
ST, Series 106010
STII, Series 106012
LC, Series 10024
Designed In: Millimeters

Mechanical

Durability: >200 mate and demate cycles
Insertion Loss: ≤0.2dB typical
Mounting Style: Snap

Physical

Panel Housing: Zinc Die-cast
Plating: Nickel
User Interface: Polymer
Alignment Sleeve: Zirconia Ceramic, Phosphor Bronze or Metal

Development Kit

Order No.	Description
106154-0000	Development Kit, Universal EMI Adapter 2.5mm version

Universal EMI Adapter Assemblies

Order No.	Description	Housing Color
106154-1000	SC-SC Universal EMI Adapter, Ceramic	Blue
106154-1001	SC-SC Universal EMI Adapter, Phosphor Bronze	Beige
106154-1005	SC/APC Universal EMI Adapter, Ceramic	Green
106154-1010	SC-FC Universal EMI Adapter, Ceramic sleeve	Blue
106154-1011	SC-FC Universal EMI Adapter, Phosphor Bronze	Beige
106154-1015	SC/APC-FC/APC Universal EMI Adapter, Ceramic	Green
106154-1030	SC-LC Universal EMI Adapter, Metal sleeve	Beige
106154-1530	LC-LC Universal EMI Adapter, Ceramic sleeve	Blue
106154-1531	LC-LC Universal EMI Adapter, Metal sleeve	Beige
106154-1535	LC/APC-LC/APC Universal EMI Adapter, Ceramic sleeve	Green
106154-1500	LC-SC Universal EMI Adapter, Metal sleeve	Beige
106154-1510	LC-FC Universal EMI Adapter, Metal sleeve	Beige
106154-1520	LC-ST Universal EMI Adapter, Metal sleeve	Beige

Universal Adapter Assemblies (no EMI shielding)

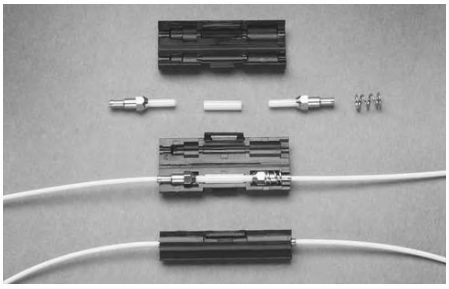
Order No.	Description	Housing Color
106154-1000	SC-SC Universal EMI Adapter, Ceramic	Blue
106154-1105	SC/APC Universal EMI Adapter, Ceramic	Green
106154-1101	SC-SC Universal EMI Adapter, Phosphor Bronze	Beige
106154-1110	SC-SC Universal EMI Adapter, Ceramic	Blue
106154-1115	SC/APC-FC/APC Universal EMI Adapter, Ceramic	Green
106154-1111	SC-FC Universal EMI Adapter, Phosphor Bronze	Beige
106154-1120	SC-ST Universal EMI Adapter, Ceramic	Blue
106154-1121	SC-SC Universal EMI Adapter, Phosphor Bronze	Beige
106154-1130	SC-LC Universal Adapter, Metal sleeve	Beige
106154-1630	LC-LC Universal Adapter, Ceramic sleeve	Blue
106154-1631	LC-LC Universal Adapter, Metal sleeve	Beige
106154-1635	LC/APC-LC/APC Universal Adapter, Ceramic sleeve	Green
106154-1600	LC-SC Universal Adapter, Metal sleeve	Beige
106154-1610	LC-FC Universal Adapter, Metal sleeve	Beige
106154-1620	LC-ST Universal Adapter, Metal sleeve	Beige

Accessory Components

Order No.	Description	Housing Color
106154-0010	SC Base, Universal EMI Adapter, Ceramic Sleeve	Metal
106154-0012	SC Base, Universal EMI Adapter, Phosphor Bronze Sleeve	
106154-0013	SC Base, Universal EMI Adapter, 1.25 to 2.5mm Metal sleeve	
106154-0015	SC Base, Universal NON-EMI Adapter, Ceramic Sleeve	
106154-0016	SC Base, Universal NON-EMI Adapter, Phosphor Bronze Sleeve	
106154-0020	SC User Half, Universal Adapter	Blue
106154-0022		Beige
106154-0025		Green
106154-0031	FC User Half, Universal Adapter	Blue
106154-0033		Beige
106154-0036		Green
106154-0041	ST User Half, Universal Adapter	Blue
106154-0043		Beige
106154-0006	Dust Cap/Removal tool, Universal Adapter	Black
106154-0050	Sleeve Assembly, 2.5mm Ceramic	Metal
106154-0051	Sleeve Assembly, 2.5mm Phosphor Bronze	
106154-0210	LC Base, Universal EMI Adapter, 1.25mm Ceramic sleeve	
106154-0212	LC Base, Universal EMI Adapter, 1.25mm Metal sleeve	
106154-0213	LC Base, Universal EMI Adapter, 1.25 to 2.5mm Metal sleeve	
106154-0017	SC Base, Universal Adapter, 1.25 to 2.5mm Metal sleeve	
106154-0215	LC Base, Universal Adapter, 1.25mm Ceramic sleeve	
106154-0216	LC Base, Universal Adapter, 1.25mm Metal sleeve	
106154-0217	LC Base, Universal EMI Adapter, 1.25 to 2.5mm Metal sleeve	
106154-0130	LC User Half, Universal Adapter	Blue
106154-0131		Beige
106154-0132	LC/PAC User Half, Universal Adapter	Green
106154-0052	Sleeve Assembly, 1.25mm Ceramic	Blue
106154-0053	Sleeve Assembly, 1.25mm Metal	Blue
106154-0054	Sleeve Assembly, 1.25mm to 2.5mm Metal	Blue

SnapMate™ Optical Interconnect System

106073



Features and Benefits

- Ceramic ferrule and alignment sleeve provides high-precision components with industry-proven low insertion loss
- Low-profile housing minimizes required mounting space on PCB and allows air-flow path to be virtually unobstructed
- Re-usable housing (over 5 mating cycles) allows for testing and reconfigration to achieve optimum performance

Reference Information

Packaging: Individual bag
Designed In: Millimeters

Mechanical

Durability:
Plugs—≥ 200 mate and de-mate cycles
Housing—5 cycles min.
Insertion Loss: ≤ 0.15dB typical

Physical

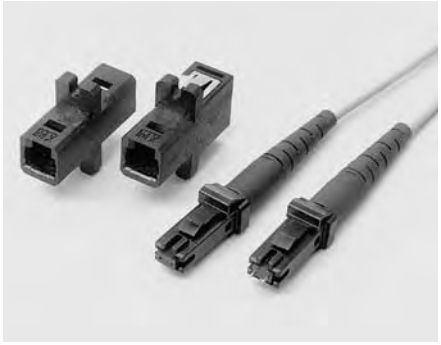
Housing: UL-94 V-0 rated polymer
Ferrule: Zirconia ceramic
Alignment Sleeve: Zirconia ceramic

Applications

- Telecommunication equipment
  - Servers
  - Switches
  - Routers
- Other markets
  - Storage servers
  - Test equipment
  - OEM equipment

Order No.	Mode	Components
106073-0020	Singlemode	Complete Kit: (1) Housing, (2) LC Plugs with Ceramic Ferrules, (1) Spring, (1) Alignment Sleeve
106073-0021		(1) Housing, (1) Alignment Sleeve
106073-0022		(1) LC Plug with Ceramic Ferrule, (1) Spring
106073-0023		(1) LC Plug with Ceramic Ferrule

MT-RJ Connectors and Adapters



Features and Benefits

- Versatile connector system with a RJ-45 form factor
- Duplex ferrule
- Increases port density required on computer and networking-related hardware, panels, wall plates and in closets by 50%
- Meets TIA-568A standards

Applications

- Premise infrastructure: backbone, horizontal
- Local Area Networks (LANs)
- Device terminations
- Telecommunication networks

Order No.	Type	Description
106002-3030	MT-RJ Connector	MM, male, black boot
106002-3430		MM, male, 90˚ black boot
106003-3030		MM, female, black boot
106003-3430		MM, female 90˚ black boot
106102-0000	MT-RJ Adapter	Standard MT-RJ cut-out
106102-0100		Simplex SC cut-out with clip

LumaCore™ 1.25mm (.049") Optical Terminus

106387



Features and Benefits

- Unique quarter-turn retention feature allows the terminus to be installed and removed from a connector solution with a simple push and turn
- All retention features are integrated on-board the terminus assuring simplicity and reliability in final connector products
- Available in a large array of connector configurations from simplex/duplex LC styles, circular Mil-C-38999, D-subminiature, Micro-D and backplane mount or custom applications
- 1.25mm precision Zirconia ceramic ferrrule available with a broad range of ferrule hole sizes from 125.5 to 650 microns
- Suitable for multimode and singlemode applications: PC, UPC and APC end face geometry capable
- Plastic fiber capable

Reference Information

Ferrule: Zirconia ceramic
Body Materials: Copper Alloy
Plating: Gold/Nickel
Spring: Stainless Steel

MXL38999™ Circular Optical Connectors



Features and Benefits

- Unique quarter turn retention feature allows LumaCore terminus to be installed and removed from a connector solution with a simple push and turn
- Metallic inserts enhance EMI performance of the connector when installed into enclosures
- Receptacles available in both jam nut and flange-mount configuration with geometry per mil-C-38999
- Plug connectors include an anti-vibration ratchet mechanism in the triple start acme thread coupling ring
- Available in aluminum, stainless steel and composite construction
- Removable alignment sleeve assembly for ease of maintenance and cleaning
- Suitable for multimode and singlemode applications: PC, UPC and APC end face geometry capable
- Precision stainless steel guide pins ensure accurate optical cavity alignment, during and after mating
- Mil-C-38999 Series III plug to receptacle sealing and accessory threads are standard

Reference Information

Body Materials:
  Aluminum Alloy (Olive Drab Cadmium or Nickel Plated)
  Stainless Steel (Passivated)
  Composite Plastic
Shell Certifications: QPL per DSCC Mil-DTL-38999 Series III
Insert Material: Aluminum Alloy
Guide Pins: Precision-ground Stainless Steel
Alignment Sleeves: Zirconia Ceramic
Sealing Gasket: Fluorosilicone Elastomer
External Dimensions: per Mil-DTL-38999 (Contact Molex for external and mounting dimensions)

LC2
Metallic Optical Connectors

106387



Features and Benefits

- All metal housing provides a robust connector design which resists breakage
- 1.25mm (.049") LumaCore terminus includes a high-performance ceramic ferrule, available for singlemode, multimode and angle-polish applications
- Removable connector housing enables direct inspection of fiber bonding areas and replacement of connector body components without fiber re-termination
- Multiple boot styles support many cable sizes and applications including 900µm, 1.60mm, 2.00mm and 3.00mm as well as 45 and 90° configurations

Applications

- Telecommunication/Datacommunication
  - Base stations
  - Vault I/O's
  - Wireless antennas
  - Video transmission
- Industrial
  - Factory automation
  - Sensors
  - Process equipment
  - Security cameras
- Aerospace
  - Avionics
  - Communications
  - Satellites
  - Data terminals
  - Signal processors
  - Sensors
  - Space systems

Order No.	Mode	Type	Ferrule Size	Housing Color	Cable Diameter	Boot
106387-1904	Singlemode	Simplex	126µm	Blue	900µm	Straight
106387-1929					1.60mm (.063")	
106387-1304					2.00mm (.079")	
106387-1329					3.00mm (.118")	
106387-1989					1.60mm (.063")	90°
106387-1364					2.00mm (.079")	
106387-1979					1.60mm (.063")	45°
106387-1354					2.00mm (.079")	
106387-2102	Multimode		127µm	Gold	900µm	Straight
106387-2127					1.60mm (.063")	
106387-1502					2.00mm (.079")	
106387-1527					3.00mm (.118")	
106387-2187					1.60mm (.063")	90°
106387-1562					2.00mm (.079")	
106387-2177					1.60mm (.063")	45°
106387-1552					2.00mm (.079")	

Copper Flex Products ..... R-2 to R-4
Printer Circuit and Electromechanical Assemblies ..... R-5 to R-6
Switch Products ..... R-7 to R-11

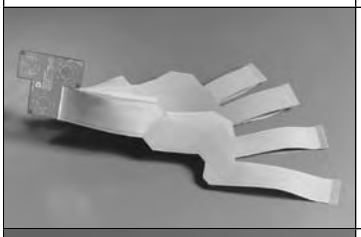
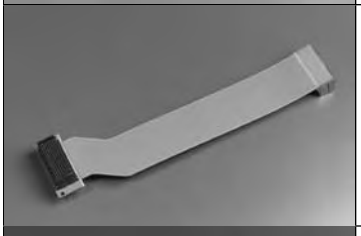
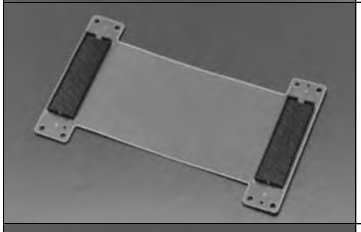
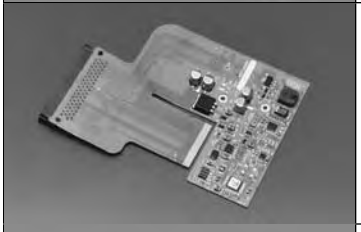
Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

Copper Flex Products

Molex Flexible Printed Circuit Technology is the answer to your most challenging interconnect applications. We are your total solution for Flexible Printed Circuitry because we design and manufacture both the flex and the connectors. A Flexible Printed Circuit (FPC or Flex) is an ultra-reliable technology. An FPC can be the best solution for creating products which are complex, small, lightweight or have harsh environmental conditions. Flex can be designed to meet a wide range of temperature and environmental extremes.

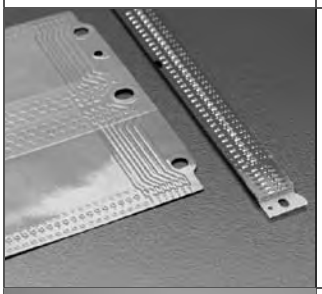
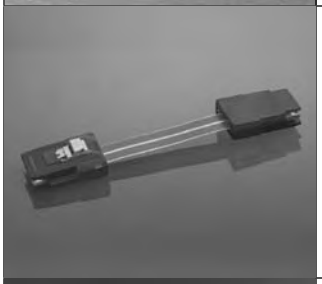
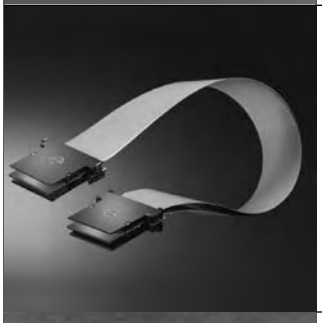
This custom solution has a variety of applications. An FPC can replace a traditional printed circuit board. Flex circuits are excellent for designs with high-density circuitry, and are more suited for dynamic applications such as hinge and drawer applications.

Most commonly, flex acts as an interconnect device. Flex circuits make electronic interconnection both simpler and more reliable. FPC interconnects are often used in applications where high signal speed, heat, flexibility or space savings are issues.

	Product	Features	Flex Construction	Standard Interconnects
	***High-Speed Rigid Flex***	• Surface mount on both sides • Stronger barrels • Press-fit connector capability	Rigid flex	Plateau HS Mezz™, SlimStack™, 0.50mm (.020") stacking systems, VHDM®
	***High-Speed Flex Assemblies***	• Typically 3 or more layers • Large number of interconnect options • High conductive routing area	Multi-layer	Plateau HS Mezz, SlimStack, 0.50mm (.020") stacking systems, VHDM, C-Grid®, Milli-Grid™, EBBI™
	***Flex Backplanes***	• High signal frequency • Controlled impedance • Improves airflow within the system	Multi-layer Rigid flex	VHDM, VHDM-HSD™, MZP™, PCI Express, SATA, SAS, MFB™, Omnigrid®
	***High-Density Flex***	• Typically 2 or more layers • Tight line and space widths • Reduces weight • Better thermal characteristics than standard rigid board constructions	Double-sided Multi-layer	C-Grid, Milli-Grid, SlimStack, 1.00 to .030mm (.039 to .012") board-to-board systems
	***Flex Interconnect Assemblies***	• Virtually unlimited variety of interconnect options • Reduces assembly time • Excellent thermal management	Single sided Single-sided, dual access Double-sided Multi-layer	C-Grid, Milli-Grid, SlimStack, 1.00 to .030mm (.039 to .012") board-to-board systems, MicroCross™ DVI, RJ-11, RJ-45, Mini-Fit®, Micro-Fit 3.0™, EBBI™, CradleCon™, LFH™, HDMI, USB
	***Flex Jumpers***	• Eliminates wire harnesses • Reduces package size • At least one ZIF end connection	Single-sided Single-sided, dual access Double-sided	1.27 to 0.30mm (.050 to .020") ZIF systems

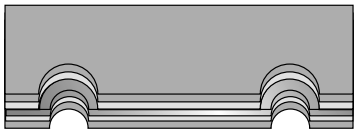
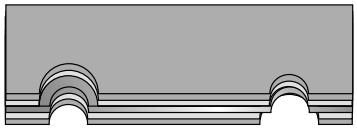
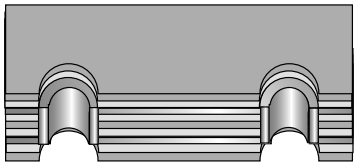
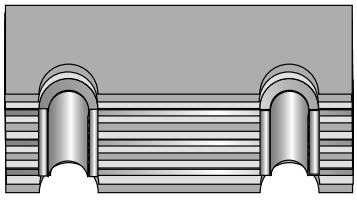
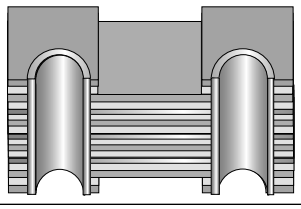
VHDM and VHDM-HSD are trademarks or registered trademarks of Amphenol Corporation

Copper Flex

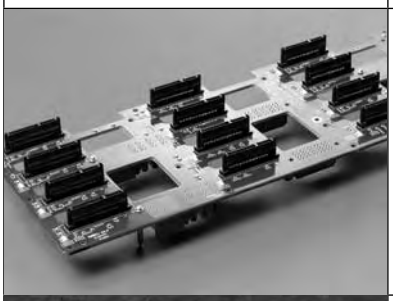
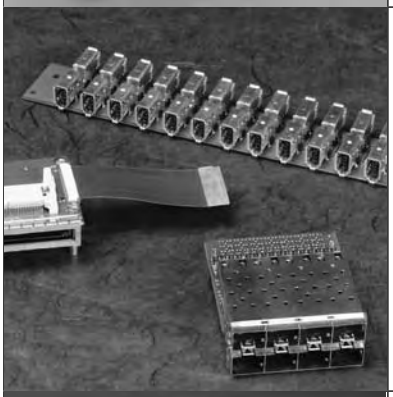
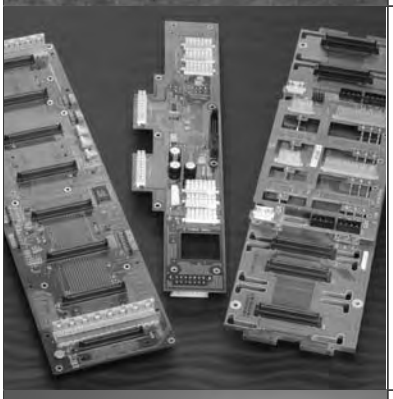
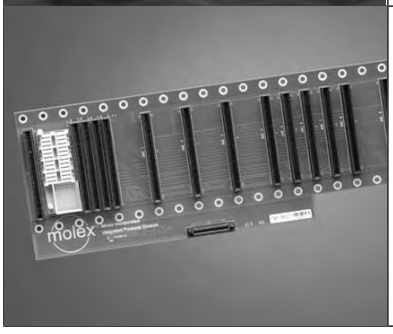
	Product	Features and Benefits	Applications
	***FlexBeam™***	• Low-profile design provides optimum electrical performance • Pin-matrix configuration on 1.00 and 0.80mm (.039 and .031") centers provides high signal density • Wiping contact ensures high reliability • Available in single beam, 0.80mm (.031") pitch configurations, to provide high-density and reliability; available in dual-beam, 1.00mm (.039") pitch configurations, to provide contact redundancy in high-reliability applications • Flex cable lengths of 4 to 28 inches for design flexibility	• Telecommunication • Server • Mass storage • Medical imaging • Automatic test equipment (ATE) • Military command and control centers
	***iPass™ Flex Cable Assemblies***	• iPass flex assemblies are compatible with the iPass connector, providing all the advantages of the high-density iPass connector system • Data rates capable of 6.25 Gbps and higher to support current and future SAS and SATA signal speeds • Mass terminated for a reliable and consistent flex circuit-to-PCB assembly termination • Excellent for wrap-around termination applications on external ports	• Telecommunication • Computers/storage • Medical imaging and controller • Industrial controller • Consumer gaming
	***Rigid Flex***	• Provides an integrated packaging solution that eliminates separate board, cables and connectors • Ideal for high-speed applications because there are no geometry changes to cause impedance discontinuities • Reliable—the one piece design eliminates failure points in the board-to-board interconnect. • Light weight, which makes it excellent for portable devices • Occupies three dimensions, enabling the Copper Flex to be bent around packaging and even over itself to fit in to a much smaller device enclosure	• Telecommunication: Switches, hand held units, base stations • Computer: Servers and storage • Military/Aero: Communications, guidance systems and weapon systems • Medical: Hand held and mobile devices, imaging • Automatic test equipment
	***SEARAY* Copper Flex Jumpers***	• Off-the-shelf design which provides a proven product for immediate use with little or no development cost for the end user • High-performance design that supports the most aggressive digital transmission needs up to 10 Gbps • High-density flex jumper and connector design which provides packaging advantages, including high-pin counts, multiple stack heights and clean-signal routing • Mass solder process that provides high reliability that cables do not offer and the flexibility that rigid boards do not provide.	• High and Mid-Range Computers: Servers • Medical: Scanning equipment, data acquisition and imaging equipment • Military: Radar and topographical equipment, control centers and CPUs • Networking and Telecommunications: Network routers and switches, mobile base stations
	***EXTreme PowerEdge™ Flex***	• Replaces traditional cable harnesses for improved airflow and cable routing management • For power applications from 25.0 to 100.0A with side band signal options • Large conductor surface provides good heat dissipation • Low inductance in power systems allows for clean power transfer in system, and helps to minimize losses in the power delivery system. • Positive latching for secure mating.	• Telecommunication: Switches and base stations • Industrial: System controls • Military: Communications, systems controls, data acquisition • Medical: Imaging, systems controls • Computer/Storage: Server, mass storage, point of sale • Test Equipment: Automatic Test Equipment (ATE)
	***SlimStack™ Flex Assemblies***	• 0.50 to 0.635mm (.020 to .025") contact pitch provides high-density signals in a low-cost connector system • High signal frequency for impedance control to 100 ohms differential with up to 4.25 Gpbs performance • Low profile to accommodate small spaces • Latching system available upon request (contact Product Manager) for additional mating assurance	• Telecommunication: Hubs, routers and base stations (Cisco, Motorola and Alcatel) • Computer: Storage, servers and notebooks • Test Equipment: Scopes, data acquisition systems • Medical: Controls and monitoring systems • Industrial: Controls and monitoring systems

*SEARAY is a trademark of Samtec, Inc.

Copper Flex Products

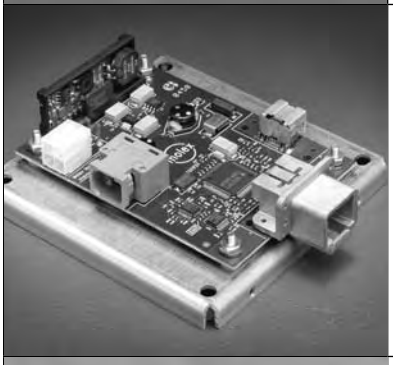
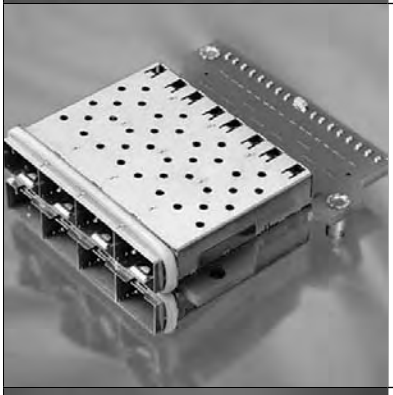
	Flex Construction	Description	Applications
	***Single-Sided***	One conductive layer	• Jumpers (board-to-board interconnect) • Print head cables • Wire harness replacements • Power control modulators • Low-cost jumpers
	***S2—Single-Sided, Dual Access***	One conductive layer, access from both sides	• Jumpers (board-to-board interconnect) • Disk drives • Consumer electronics • Automotive controls and sensors
	***Double-Sided***	Two conductive layers	• Digital displays for consumer and hand-held items • Industrial electronic controls • LED panels for military and medical devices • Digital cameras
	***Multi-Layer***	More than 2 conductive layers	• Servers and high-end computers • Laptop computers • Computer storage • Telecom base stations, hubs and routers • Mobile phones
	***Rigid Flex***	Combination of traditional PCB and Flex created into 1 continuous piece	• Military electronics • Flex applications requiring SMT components on both sides • Flex applications that need press-fit connectors • Mobile medical equipment • High-temperature and harsh environment applications

Printed Circuit and Electromechanical Assemblies

	Product	Features and Benefits
	***Backplane/Midplane Assemblies***	• Signal integrity modeling • Full turnkey services • Support all Molex and industry-standard backplane connector systems (Impact™, I-Trac™, GbX®, VHDM®, VHDM-HSD™, Milli-Z™, Serial ATA, SCSI, etc.) • Mechanical and electrical design, development, test support and in-house test engineering development capabilities • Global assembly capabilities
	***Custom Printed Circuit Board Assemblies***	• Experts in interconnect PCB assembly solutions: I/O cards, mezzanine cards and hybrid passive and active interconnect cards • Global manufacturing, material sourcing, tooling and testing capabilities • Clean sheet mechanical and electrical design, development and test support, including modeling and empirical testing • Mechanical packaging expertise to modify I/O to meet specialized form factor requirements
	***Interconnect Cards***	• Signal and/or power cards available • Press-fit, through hole and SMT options available • Cost effective solution by integrating Molex connector technology and manufacturing • Specialize in boards with high connector content • Currently serving customers worldwide, reliably and competitively
	***MicroTCA Backplane***	• Connectors for 2 power supplies and 2 MCHs facilitates testing of hand-off features when one power supply or MCH fails • Designed with 4 compact slots to allow either 10 full-height (10 total) slots or 4 compact and 8 full-height slots (12 total). • Connector interface with backplane (launch geometry) has been carefully designed to minimize reflections for 10 Gbps performance. • FRU ROM (Field Replaceable Unit Read Only Memory) on the backplane communicates with MCH all of the important characteristics • Design is easily scalable and flexible to minimize customization and time-to-market, to meet customer applications and requirements.

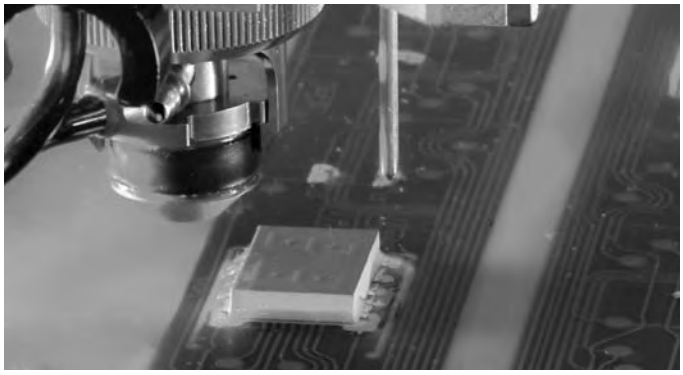
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Printed Circuit and Electromechanical Assemblies

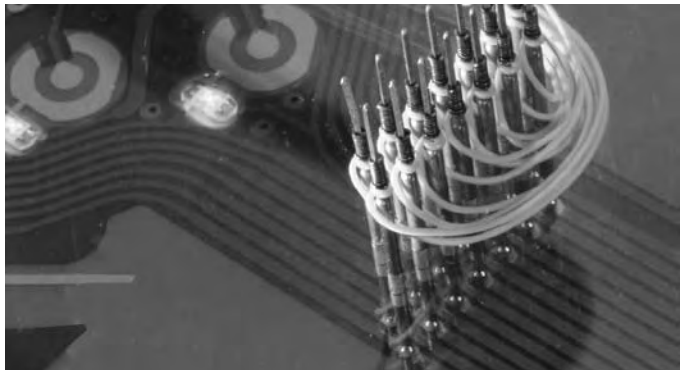
	Product	Features and Benefits
	***MicroTCA Chassis***	• Small chassis 438.00 W by 177.00 H by 260.00mm D (17.244 by 6.968 by 10.236") is a convenient size for use on the desktop or lab bench. • Power supply on the rear converts 100 or 220V AC to 48V DC that is wired to the front; a short cable plugs in to the MicroTCA power module which can easily be placed on the desk or workbench without special 48V power feed. • Air input from all 4 sides, exhaust from 3 sides and the top enables full cooling functionality in the very small 4 U height. • Extra port allows a JTAG switch module for system level testing • Molex 10 Gbps backplane installed allows direct comparison of the Molex solution against any other backplane solution in a similar card edge by functionally evaluating the systems and comparing results, especially when higher speeds are required. • Field Replaceable Unit Read Only Memory (FRU ROM) on the backplane communicates to the MCH all of the important backplane characteristics.
	***Repeater***	• Automotive solutions • Fully custom solutions for I/O Hubs • Supporting the major I/O interconnects (USB, 1394, etc.) • Mechanical and electrical design
	***Industry Standard Cards***	• Expertise in industry standard platforms such as DVI, IEEE 1394, USB, SFF and other serial interface technologies • Standard card offerings such as ADD2 DVI card as well as stacked SFP assemblies for standard ATCA applications • Offer kits that include backplane assemblies and harness assemblies for one integrated solution for your high-speed signal requirements
	***Rack and Accessories***	• Integrates Molex technologies: cables, connectors, flex, switches, PCB assemblies and thermal products • Global manufacturing and material sourcing capabilities • Mechanical and electrical design, development, test support and prototype capabilities

Switch Technology

Molex is a global leader in interconnect solutions, as well as a manufacturer of custom user-interfaces, membrane switches and flex circuits.
Our manufacturing capabilities are strategically placed in the United States, Mexico and China, and include automated processes such as screen-printing, surface-mount component bonding, die cutting and tactile element (snap dome) placement. Secondary processes include final assembly, 100% electrical inspection/testing and packaging.
A full-service prototype lab is present in each location to produce designs and qualify products prior to fi nal tooling.



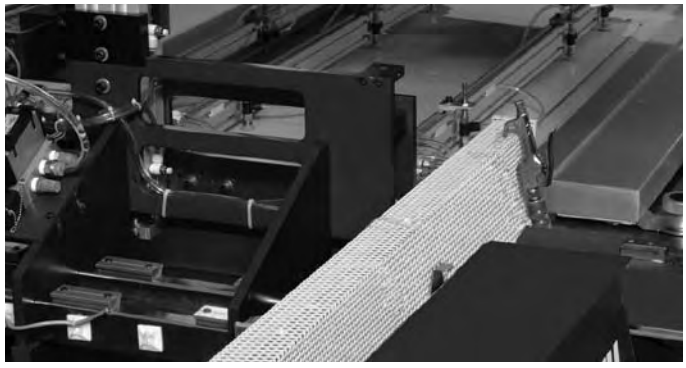
Display Attachment



100% Electrical Testing



Automated LED Bonding



Automated Screen Printing



Automated Dome Placement



Laser Cutting

Products

Our custom keypad solutions, designed and supported throughout both North America and Asia, include technologies such as membrane switches and switches with embedded LEDs. Additionally, Molex offers flat panel products with 7 segment displays, PCB-substrate front panel keypads (both passive and active designs), dome arrays (polyester and metal dome) and silicone rubber keypad assemblies. With regionally-located sales and application engineers that specialize in assisting our customers with their specific designs and solutions, Molex has earned its position as the global leader of user interface keypads.

Membrane Switches (Tactile and Non-tactile)

- High-reliability Molex domes
- Unlimited non-tactile contact configurations
- Automated global circuit printing
- 3D membrane switches enhanced with rubber keypads
- Disposable medical circuits





Membrane Switches With Embedded LEDs and Indication

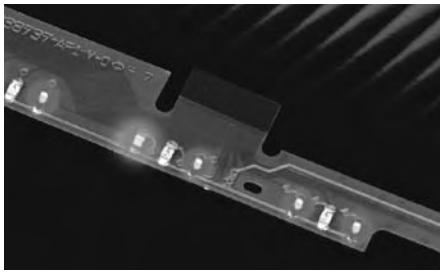
- SMT LEDs for backlighting
- Embossed windows provide enhanced viewing angle
- Fully automated component bonding (resistors, caps, ICs)

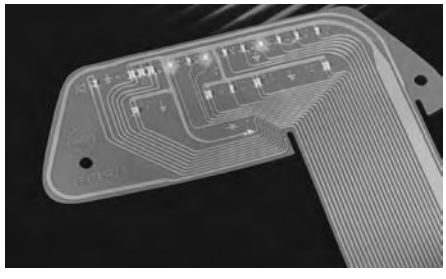




LED/Display Flex Assemblies

- Multiple circuit substrate options
- Unlimited optoelectronic options:
  - 7 segment displays
  - LEDs
  - Diodes/Photodiodes
  - Emitters/Detectors/Sensors
- Allow for flexible mounting configurations

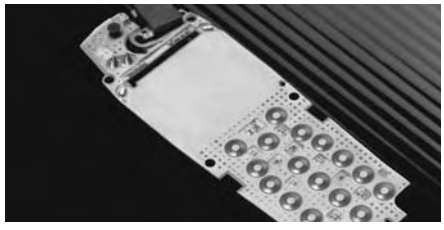




Dome Arrays

- Low-cost contact systems
- Easy peel 'n stick application
- Easy to integrate to PCBs
- Allow for custom contact configurations
- Metal dome or embossed contact systems





Control Panel/Value Add Options

- Capacitive switching with backlighting (membrane and PCB)
- Unlimited integration (housings, backers, electronics)
- Reduced supply base and BOM
- Designed for manufacturability
- Cost effective design

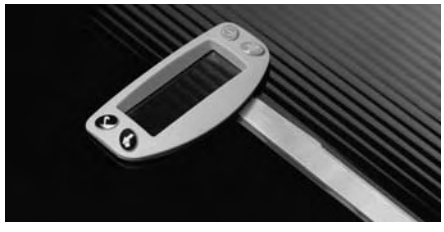




Rubber Keypad Assemblies

- Enhance design aesthetics
- Increase switch travel and tactile feedback
- Provide discrete key appearance with multiple surface finishes
- Patented Molex rocker switch options
- Hard keycap options/in-mold decorating
- Multiple backlighting options





molex

www.molex.com/product/switch/switch.html

Advanced Quality Planning Sheet for Membrane Switches

Company: _____ Date: _____
Address: _____ Contact: _____
City/State: _____ Phone: _____ Type of control panel:
Estimated annual usage: _____ _____ Membrane _____ Hybrid
Price objective: _____ _____ Bonded _____ Tactile
Components Membrane
_____ Conductive Rubber

Graphic Sheet Matrix

No. of colors: _____ Material: _____ Thickness: _____
Texture: _____ Matte Embossing: _____ Rail Display windows: _____ LCD
_____ Gloss _____ Pillow _____ LED
_____ Selective _____ Height _____ Vacuum
POTENTIAL CHEMICAL EXPOSURE: _____

Electrical Specifications

Contact resistance (at termination): _____ Max.
Operating voltage: _____ Operating current: _____
Shielding requirements: _____ ESD _____ RFI _____ EMI
Switch circuitry: _____ Matrix _____ SPST/COM _____ Other
Max. contact bounce: _____

Mechanical Specifications

Life requirements: _____ Cycles Panel size: _____ x _____
Mounting method: _____ Flex tail length: _____
Critical dimensions: _____
Termination at tail: _____ Contact force: _____
Optional components required: Tactile feedback: _____
_____ Backlighting _____ LEDs Dimensional tolerances required:
_____ Conductive rubber _____ Backer Overall size: +/- _____
_____ Molded housing _____ LCD Registration: +/- _____

Environmental Specifications

Storage Temperature: _____ min. to _____ max. Humidity: _____
Operating Temperature: _____ min. to _____ max. Altitude: _____
User environment: _____

Product Qualification

Environment test: _____
Qualification process: _____

Molex Switch Products
2222 Wellington Court
Lisle, IL 60532
Fax: 630-396-6338
switch@molex.com

Molex recommends photocopying this form instead of removing page from catalog.

Capacitive Sensing



What is capacitive sensing?
A robust technology that uses capacitance to detect the presence of a human finger or any other conducting object. There are no moving parts that can wear out or detract from the reliability of the product.

How does it work?
A custom circuit sensor, either on a printed circuit board, polyimide or polyester circuit, creates a capacitive field. When a finger or conductive object enters the field, the product recognizes a change in capacitance.

Features and Benefits

Elegant Design
- Unique backlighting solutions
- Seamless overlays allow for easy cleaning
- Feather light actuation
- Unlimited cosmetic options including colors, texture and backlighting

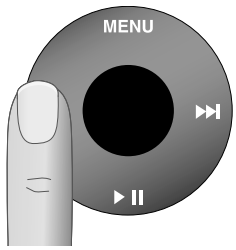
Robust and Durable
- No moving parts to wear out
- Can sense through the protection of glass or thick plastic overlays
- Resistant to harsh chemical exposure
- Can be sealed and protected from environmental effects
- Resistant to contaminants on overlays
- Resistant to the effects of EMI
- Senses through gloves

Design Flexibility
- Circuit can be constructed using polyester, polyimide, or PCB
- Communication using many options including I2C, SPI and UART or user defined
- Unlimited cosmetic options
- Can incorporate LEDs for discrete backlighting
- Can be mounted to curved surface
- Wide variety of overlay options: glass, polycarbonate, polyester, leather, wood or acrylic. Virtually any non-conduction material
- Shape and size of buttons can be tailored to your specifications
- Can incorporate tactile elements
- Can function when wet
- Can compensate for environmental and physical sensor variations
- Keypads can be sealed

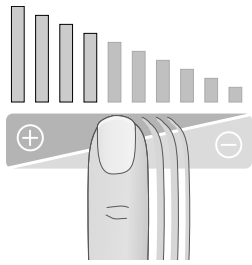
Physical
Circuit Substrate Options: Rigid FR4, flexible polyimide and flexible polyester
Overlay Options: Glass, polycarbonate, polyester, leather, wood or acrylic

Environmental
Parameters may vary depending on specific switch configuration and application requirements
Supply Voltage: 3 to 5.25V DC
Supply Current: 3.0 to 4.0mA (not including driving any LEDs)
Storage Temperature: -40 to +125˚C
Humidity: Up to 90% RH non-condensing per MIL-STD 202F
Thermal Shock: Per MIL-STD 202F, 1 cycle of -40˚ C for 30 minutes, then +65˚ C for 30 minutes

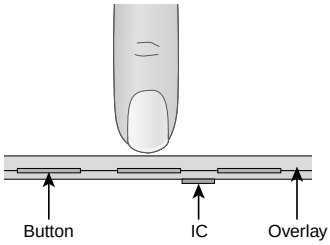
Applications
- Appliances: cooking, dish washer, microwave and refrigeration
- Medical Equipment: Diagnostic equipment, operating room equipment
- Fitness Equipment: Treadmill, cycle and stair equipment
- Gaming: Video gaming and slot machines
- Vending Machines: Dispensing equipment
- Commercial: Elevators, fuel pumps and weigh scale
- Automotive: Entertainment and navigation systems, door switches and locks
- Point of Sale Terminal: Restaurant, retail, automated banking machines (ABM), kiosks
- Home Automation/Security: HVAC—A/C control
- Industrial: Human Machine Interface (HMI), robotics



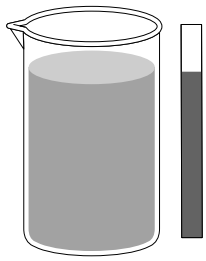
Rotary Sliders



Linear Sliders



Discrete Switch Buttons



Position Measurement and Proximity Sensing

Tech Sheet

Physical

Substrate:
Polyester (PET)—Clear, translucent or white, 0.13 or 0.18mm (.005 or .007") thick
Polyimide—Various thicknesses available, 0.03mm (.001") standard
Conductive Ink Resistivity:
Silver Ink—20 milliohms/sq/mil max.
Carbon Ink—150 milliohms/sq/mil max.

Component Attachment

Silver Epoxy: Isotropic adhesive, used for attaching SMT devices
Z-Axis Epoxy: Anisotropic adhesive
Lead-Free Solder: For RoHS applications
Component Types: LEDs, Resistors, Capacitors, Diodes, Phototransistors, 7-Segment Displays
Minimum Package Size: 0603 (on PET only)

Membrane Switch Options

Tactile Dome Selection*:

Size	Force
12.00mm (.472")	405g
12.00mm (.472")	240g
9.00mm (.354")	250g

Print Capabilities

Sheet and roll-to-roll printing available globally
Maximum Sheet Size: 60.96 by 91.44cm (24.00 by 36.00")

Trace Pitch Capabilities

Lines: 0.51mm (.020")—PET
Spaces: 0.51mm (.020")—PET
Circuit Construction:
Screened Crossover Circuit: Two insulated conductors on same side
Printed Through Hole: Double-sided circuits with as many as 4 conductive layers
Print Registration Tolerances: ± 0.38mm (.015") print pass to print pass

Die-Cut Capabilities

Circuit

Die-Cut Type	Die-Cut to Print Tolerance
Hard Tool	± 0.13mm (.005")
Steel Rule Die	± 0.38mm (.015")
Steel Rule Die-Cut Tolerances	
Overall Size:	± 0.38mm (.015")
Hole Diameter:	± 0.25mm (.010")
Hole Location:	± 0.38mm (.015")
All Cutouts:	± 0.38mm (.015")

Electrical

Circuit Resistance: 100 ohms max., may vary depending on circuit configuration
Durability: Tactile—1 million operations
Non-Tactile—5 million operations
Contact Bounce: 5 milliseconds typical
Insulation Resistance: 100 Megohms initial between adjacent traces

Environmental

These parameters may vary depending on specific switch configuration and application requirements.
Storage Temperature: -40 to +70˚ C typical (+85˚ C construction available)
Humidity: Up to 90% RH non-condensing, per MIL-STD 202F, Method 103B, Condition A*
Thermal Aging: 96 hours at +70˚ C, then 96 hours at -40˚ C
Thermal Shock: Per MIL-STD 202F, Method 107D. 5 cycles of -40˚ C for 30 minutes, then +70˚ C for 30 minutes
Silver Migration: 3 cycles of 4 hours in +45˚ C at 85% RH, then cooled to +25˚ C for 4 hours with 5V DC applied

*After test, parts must meet electrical characteristics as specified above.

Power Products

Typical Terminal Styles S-2
Quick Disconnects S-3
Specialty Connectors S-4
Terminal Blocks
- Beau® Eurostyle ..... S-5 to S-8
- Barrier Strips ..... S-9 to S-12
- Beauplug® Plugs and Sockets ..... S-13 to S-15

Wire Splice Terminal S-15
Wire Management Products S-15
Heavy-Duty Rectangular Industrial Connectors
- HMC™ ..... S-16 to S-21
- Mini-HMC™ S-22

Sealed Connector Systems

MX150L™ ..... S-23 to S-24
XRC™ ..... S-25 to S-27

Automation Connectivity

Brad® Nano-Change® (M8) ..... S-28 to S-30
Brad Micro-Change® (M12) ..... S-31 to S-40
Brad Ultra-Lock® (M12) ..... S-34 to S-35
BradConnectivity™ mPm® Connectors S-41
Brad Mini-Change® ..... S-42 to S-50
BradPower™ ..... S-51 to S-54
BradConnectivity™ M23 Signal and Power Connectors S-55
Network Protocols
- DeviceNet* ..... S-56 to S-63
- PROFIBUS ..... S-64 to S-67
- Ethernet ..... S-68 to S-74

Woodhead® Grips ..... S-75 to S-77

I/O Connectors

Commerical Micro-D S-78

* DeviceNet is a trademark of Open DeviceNet Vendor Association (ODVA)

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

Typical Styles

Standard Ring Tongue

The ring tongue terminal is the safest and most reliable style because it cannot be disconnected unless the screw is completely removed.

The basic Molex barrel, called Krimptite®, is noninsulated and features a quality, one-piece design. It is also the most economical style and has the greatest variety of uses where special features are not required.

The InsulKrimp® version features a rigid insulation sleeve of PVC affixed to the Krimptite barrel or the brazed-seam VersaKrimp™ barrel. It attaches to the wire with one quick crimp and the insulation sleeve protects against vibration damage by preventing wire flex at the crimp point. The funnel entrance into the barrel eliminates wire strand "fold back," increases crimping rates and enhances wire termination reliability.

When the butted-seam Krimptite barrel is bonded with a special brazing alloy, it becomes a VersaKrimp barrel. These brazed-seam barrel terminals will not open under conditions of stress or wire pull. As versatile as it is tough, it can be crimped under most adverse conditions by many types of tooling. The VersaKrimp is ideal for hard-to-crimp solid and stranded wires.

The NylaKrimp® barrel was designed specifically for larger wire applications. The color-coded barrel is formed by affixing a permanent, rigid, color-coded nylon insulating sleeve to the barrel. The insulation has a funnel entrance into the barrel that eliminates wire strand "fold back," increases crimping rates and enhances wire termination.

AviKrimp® terminals with color-coded barrels offer you the ultimate in high-performance terminal design and rugged construction. The Tin-plated Brass sleeve strengthens the barrel and secures the wire to protect against stress and high vibration. The color-coded nylon insulating sleeve extends beyond the metal support sleeve. A funnel ferrule wire entrance into the barrel prevents wire strand "fold back" for increased crimping rates and added wire termination reliability in the standard barrel length.

Features

- Material: Copper
- Available in wire ranges from 24 to 26 AWG to 4/0
- All parts available loose piece; some are also available on mylar tape carrier



AviKrimp | InsulKrimp | NylaKrimp | Krimptite | VersaKrimp

Splices

Molex offers standard and special splices for nearly every type of wiring needed.

Butt Splice
Stripped wires are inserted from each end and "butt" in the center, then a crimp at each end secures the connection.



Step Down Butt Splice
The perfect solution when two wires need to be inserted in one end of a splice and a single wire in the other end.



Parallel Splice
Stripped wires lie side-by-side in the splice and are secured by a single crimp in the middle.



AviKrimp Butt Splice
With the extra metal sleeve and nylon insulation, these splices should be used when heavy vibration is anticipated and a strong strain relief is needed.



Funnel Entry Butt Splice
With the funnel entry butt splice, the end that will be crimped by the crimping press is funneled to allow quick and easy wire insertion.



Window Butt Splice
The unique feature of this splice is the "window" that is stamped into the copper splice and covered by nylon. The inspection window guarantees proper wire insertion and crimp tool alignment. QPL'd to Mil-T-7928/5



Multi-Lock
This is an insulation displacement connector that allows tap-and-run connections. Using only ordinary channel lock pliers, these color-coded connectors make quick, reliable, preinsulated splices without having to strip, twist or solder.



Nylon Closed End Connector
The nylon closed end connectors are used in a wide variety of situations to "pigtail" or tie together two or more wires.

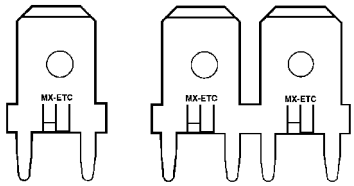


Wire Tap
The Wire Tap splices onto a wire using an insulation displacement barb. No special tools are required, simply squeeze together with pliers.



Note: The connectors shown here are only a representation of our product line. For a complete listing of all solderless terminals and connectors, please contact Molex Industrial Division at 1-800-800-0449, or at www.molex.com.

Quick Disconnect Terminals For PC Board



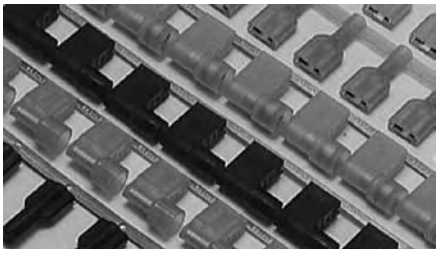
Molex offers a large selection of Standard Printed Circuit Board Mountable quick disconnect terminals. Some products offer a tab support mounting feature providing increased mounting reliability and terminal strength. Products are available as strip applied and loose piece. All products can be easily inserted into printed circuit boards using widely available, industry standard bench-type and fully-automated XY insertion tooling.

Molex PC board Quick Disconnect terminals are available in tab sizes ranging from 2.79 by 0.51mm (.110 by .020") to 6.35 by 0.81mm (.250 by .032"). Products are available in both vertical and right angle mounting configurations. All products are manufactured to NEMA specifications and are UL and CSA recognized.

Features

Material: Brass
Tab conforms to NEMA specifications
Plating: Tin 3.81µm (150µ") min. thickness

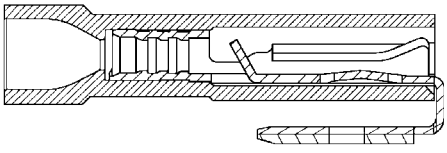
Fully-Insulated Quick Disconnects



Features

- Meets UL 310 standards (listed under UL File No. E79133)
- Color coded translucent insulator allows easy identification of terminal size and wire gauge
- Funnel entrance designed for increased crimping rates by speeding wire delivery into crimp section and eliminating wire strand fold back
- Wire stop stamped into the crimp barrel prevents insertion of over-stripped wire
- AviKrimp version has extra advantage of the secure metal support sleeve, and fulfills double crimp (support) requirements of VDE and DIN specifications
- The right angle flag terminal provides space saving design
- All parts available as loose piece; most are also available on either mylar tape, metal strip, and/or continuous molded carrier
- Some parts meet the UL 94V-0 flammability rating

Fully-Insulated Piggyback Quick Disconnects

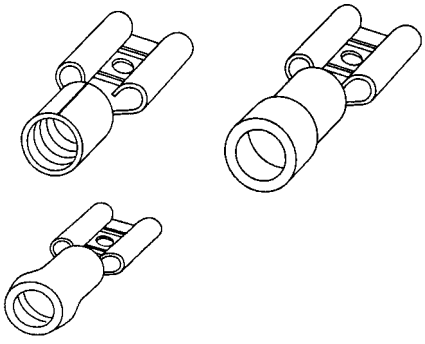




Features

- Same functions as a standard piggyback terminal with the added feature of being fully insulated with a rigid nylon housing
- Also available in expanded flare versions
- Available in InsulKrimp (single crimp) or AviKrimp (double crimp) style
- Also available in barrel insulated InsulKrimp and AviKrimp versions

Tape-fed And Loose-piece Quick Disconnects



These non-insulated and partially insulated quick disconnects are available either loose piece or tape-mounted. Loose piece versions are individually fed into the dies of manual and powered hand crimping tools. Tape-fed versions are the same terminals mounted on mylar tape for automatic feeding into air- or electric-powered bench crimping presses.

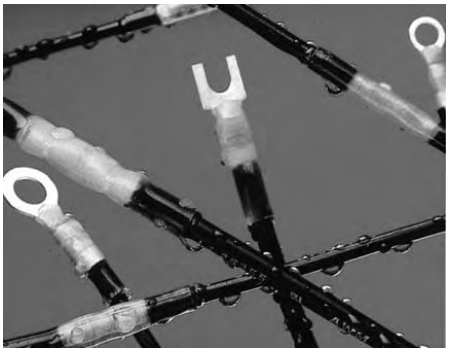


Tape-fed terminals are ideal for applications where there are too many terminals for hand tool crimping and too few for strip press crimping. All loose piece and tape-fed terminals have a fully Tin-plated Brass construction with closed electrical barrels.

Parts are available in the following styles: Krimptite (butted seam), InsulKrimp (PVC insulated), and AviKrimp (nylon insulated with vibration support).

Note: The connectors shown here are only a representation of our product line. For a complete listing of all solderless terminals and connectors, please contact Molex at 1-800-800-0449, or at www.molex.com.

Perma-Seal™ Terminals and Splices

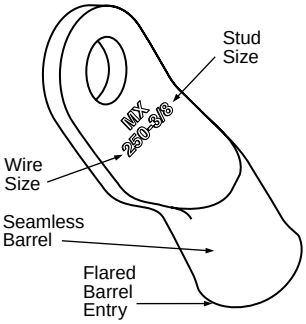


Perma-Seal terminals and splices provide a rugged, environmentally sealed connection for wire sizes 8 to 22 AWG that will insulate, seal and protect joints from physical abuse and abrasion, water, salt and other corrosive compounds.

These terminals give you long-lasting, moisture-proof connections that withstand water, salt, corrosion and heat, all of which cause serious problems for conventional, unsealed splices. The inner wall of the heat-shrinkable insulation sleeve is lined with a special hot-melt adhesive that is inert at room temperature, permitting wires to be inserted easily into the splices and terminals. As the sleeve is heated, the adhesive melts and flows under pressure from the tubing. This action creates a voidless seal that repels moisture incursion even during pressure cycling, and stands up to some of the most rigorous tests that can be applied to high-performance splices, such as the salt fog test MIL-T-7928.

The tough insulation sleeve of Perma-Seal splices and terminals resists abrasion and cutting. This protection helps to maintain the insulation and sealing properties even in the most hostile environments, inside and out.

Heavy-Duty Copper Lugs and Splices



Our heavy-duty closed end crimpable terminals are designed for electrical and industrial applications such as welding equipment, forklifts, generators, power distribution equipment, motors, etc. They are manufactured of pure electrolytic copper, and are available in 8 AWG through 4/0 AWG wire and cable with a variety of stud sizes.

Features

- Rated to 35KV applications
- UL listed, CSA certified
- Crimps in industry standard tooling
- Seamless barrel design
- Can be easily soldered or crimped
- Flared barrel entry for easy wire insertion
- AWG wire size identification on barrel
- Made of CDA-110 Copper stock offering 100% conductivity

Star Ring Terminals



The Star Ring is a serrated ring that is mainly used for grounding. Unlike a ring terminal, when you tighten down on a star ring, the "star blades," or serrated edges, actually pierce through paint or other coatings, and bite into the metal to insure a good connection or ground. The product may also eliminate the need for lock washers.

Features

Material: Brass or Steel
Non-insulated, PVC insulated, or nylon insulated
Wire ranges from 18 to 22 AWG and 14 to 16 AWG

Note: The connectors shown here are only a representation of our product line. For a complete listing of all solderless terminals and connectors, please contact Molex at 1-800-800-0449, or at www.molex.com.

Eurostyle™ PCB Terminal Blocks

Fixed, One Piece or Pluggable, Two Piece

Molex manufactures a wide variety of Eurostyle terminal blocks to fit your connector needs.
Whether you need a fixed, single-piece solution, or a pluggable, two-piece combination, Eurostyle terminal blocks from Molex provide a quality connection every time.

Beau Eurostyle terminal blocks are available from 3.50mm (.138") pitch to 15.00mm (.591") pitch, with current ratings ranging from 8.0 to 30.0A per circuit. The range of styles, configurations, pitches and ratings makes it easy for you to find the right connector for your design.

Features and Benefits

- Rising cage clamp termination provides a secure connection without strand damage or intermittence
- Various imprinting styles available making wiring and repair faster and easier in the field
- Optional mounting ends ensure plugs maintain connection with PCB headers
- Some PCB headers available as surface mount compatible
- Industry standard interface for compatibility with existing baord layouts
- Made from self-extinguishing nylon material, UL 94 V-0 flammability rating

Reference Information

UL File No.: E48521

Plugs



No. of Circuits	Pitch	Series	Component	Orientation	Current	Voltage	Wire Range (AWG)	Lead-free
2-20	3.50mm (.138")	39500	Plug	Horizontal	8.0	300V	16-30	Yes
		39503		Vertical				
		39504	Plug with retention screws	Horizontal				
		39507		Vertical				
2-20	3.81mm (.150")	39510	Plug	Horizontal	8.0	300V	16-30	
		39513		Vertical				
		39514	Plug with retention screws	Horizontal				
		39517		Vertical				
2-24	5.00mm (.197")	39520	Plug	Horizontal	18.0	300V	12-30	
		39523		Vertical				
		39524	Plug with retention screws	Horizontal				
		39527		Vertical				
2-24	5.08mm (.200")	39530	Plug	Horizontal	18.0	300V	12-30	
		39533		Vertical				
		39534	Plug with retention screws	Horizontal				
		39537		Vertical				
2-12	7.50mm (.295")	39371	Plug	Horizontal	15.0	300V	12-30	
		39374		Vertical				

Headers



Reference Information

UL File No.: E48521

PCB Headers

No. of Circuits	Pitch	Series	Component	Orientation	Current	Voltage	Wire Range (AWG)	Lead-free
2-20	3.50mm (.138")	39502	PCB Header	Horizontal	8.0	300V	N/A	Yes
		39501		Vertical				
		39506	PCB Header with retention inserts	Horizontal				
		39505		Vertical				
2-20	3.81mm (.150")	39512	PCB Header	Horizontal	8.0	300V	N/A	
		39511		Vertical				
		39516	PCB Header with retention inserts	Horizontal				
		39515		Vertical				
2-24	5.00mm (.197")	39522	PCB Header	Horizontal	18.0	300V	N/A	
		39521		Vertical				
		39526	PCB Header with retention inserts	Horizontal				
		39525		Vertical				
4-48		39528	PCB Header, dual level	Horizontal and Vertical				
2-24	5.08mm (.200")	39532	PCB Header	Horizontal	18.0	300V	N/A	
		39531		Vertical				
		39536	PCB Header with retention inserts	Horizontal				
		39535		Vertical				
4-48		39538	PCB Header, dual level	Horizontal and Vertical				
2-12	7.50mm (.295")	39373	PCB Header	Horizontal	15.0	300V	N/A	
		39372		Vertical				

Beau® Eurostyle™ PCB Terminal Blocks

Fixed Terminal Blocks



Reference Information
UL File No.: E48521

No. of Circuits	Pitch	Series	Orientation	Current	Voltage	Wire Range (AWG)	Lead-free
2-25	3.50mm (.138")	39357	Vertical	12.0	300V	16-18	Yes
2-24	5.00mm (.197")	39543	Vertical, Horizontal, 45° angle	10.0		14-22	
		39890	Vertical, 35° angle	13.5		16-30	
	5.08mm (.200")	39544	Vertical, Horizontal, 45° angle	15.0		12-30	
		39880	Vertical, 35° angle	13.5		16-30	
2-3*	6.35mm (.250")	39380	Vertical	30		10-30	
	9.53mm (.375")	39390					

*Note: 39380 and 39390 are modular. Two and three circuit parts can be used to assemble larger circuit sizes.

Eurostyle™ PCB Terminal Blocks

Multi-level (Fixed) Blocks



Features and Benefits

- Modular design allows larger circuit sizes to be created by stacking smaller circuit parts together, which reduces inventory
- Rising cage clamp wire termination provides secure, reliable contact
- Two and three level parts have staggered rows to make wiring easier

Reference Information
UL File No.: E48521

Multi-Level

Circuits	Pitch	Series	Profile	Levels	Current	Voltage	Wire Range (AWG)	Lead-free
4-48	5.00 (.197)	39890	Low	2	13.5A	300V	16-30	Yes
			Medium		17.5A		12-30	
	5.08 (.200)	39880	Low		13.5A		16-30	
			Medium		17.5A		12-30	
			High		24.0A			
6-72	5.00 (.197)	39890	Low	3	13.5A		16-30	
			Medium		17.5A		12-30	
	5.08 (.200)	39880	Low		13.5A		16-30	
			Medium		17.5A		12-30	
			High		24.0A			

Beau® Eurostyle™ PCB Terminal Blocks

High-Power Terminal Blocks



Features and Benefits

- Rising cage clamp wire termination provides secure, reliable contact
- Multiple PCB terminals distribute power more evenly, reducing "hot spots"
- Combination slotted/posi drive screw heads improve transmission of torque for superior wire retention
- Extended wire funnel entry surrounds the wire insulator, eliminating exposed wire strands and possible shorting

Reference Information

UL File No.: E48521

Fixed High-Power

Circuits	Pitch	Series	Orientation	Current	Voltage	Wire Range (AWG)	Lead-free
2-14	10.16 (.400)	39910	Vertical	60.0/40.0A	600V	6-18	Yes
2-12	15.00 (.591)	39920		85.0/115.0A		3-14/1-8	
3-16	8.00 (.315)	39950		20.0A		12-22	
3-12	8.00 (.315)	39960		30.0A		10-22	
2-12	10.16 (.400)	39970		60.0/40.0A	300V	6-18	

Pluggable High-Power

Plug

Circuits	Pitch	Series	Component	Orientation	Current	Voltage	Wire Range (AWG)	Lead-free
2-10	12.00 (.472)	39421	Plug	Horizontal	85.0A	600V	3-14	Yes
2-8		39422	Plug with retention screws					

Header

Circuits	Pitch	Series	Component	Orientation	Current	Voltage	Lead-free
2-10	12.00 (.472)	39425	PCB Header	Horizontal	85.0A	600V	Yes
2-8		39426	PCB Header with retention inserts				

www.molex.com/product/highpower_tb.html

Pluggable Beau® Euromate™



Features and Benefits

- Wiring terminals are staggered and offset vertically to facilitate easier wiring access
- Rear barrier prevents over-insertion of wire into device
- Accepts 6.35mm (.250") ring and spade wiring terminals

Reference Information

UL File No.: E48521

Circuits	Pitch	Series	Orientation	Current	Voltage	Wire Range (AWG)	Lead-free
3-21	3.81 (.138)	39930	Vertical	12.0A	300V	14-22	Yes
3-24	5.08 (.200)	39940		15.0A		12-22	

* Mates with most 3.81 and 5.08mm (.138 and .200") pitch headers.

Positive Locking Plugs and Headers



Features and Benefits

- Polarization feature eliminates the potential for mismating
- Low-profile Eurostyle plug
- Positive latching system resists vibration and wire loads
- Surface Mount Compatible headers can withstand reflow soldering temperatures, elminiating the need for a secondary wave soldering operation

Reference Information

UL File No.: E48521

Plugs

Circuits	Pitch	Series	Orientation	Current	Voltage	Wire Range (AWG)	Lead-free
2-24	5.08 (.200)	39980	Vertical	10.0A	300V	12-24	Yes
2-18	5.00 (.197)	39990				12-26	

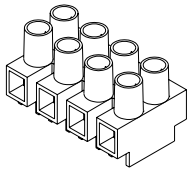
Headers

Circuits	Pitch	Series	Orientation	Current	Voltage	Lead-free
2-24	5.08 (.200)	39980	Vertical	10.0A	300V	Yes
2-18	5.00 (.197)	39990				

www.molex.com/product/poslatch_tb.html

Eurostyle™ Terminal Blocks

Eurostyle Two-Screw Terminal Strips



Features and Benefits

- Modular design allows larger blocks to be easily cut into smaller circuit sizes
- Contacts and screws are recessed in the housing to help prevent short circuits and provide added finger safety
- Wire protectors prevent stranded wire damage during connection

Circuits	Pitch	Series	Current	Voltage	Wire Range (AWG)	Description	Lead-free
2-12	8.00 (.315)	39100-08XX	20.0A	600V	12-22	Standard profile, with standoffs	Yes
	10.00 (.394)	39100-10XX	30.0A		10-18		
	12.00 (.472)	39100-12XX	40.0A		8-20		
	15.00 (.591)	39100-15XX	63.0A		6-14		

Low profile (300V) versions of 8.00, 10.00 and 12.00mm (.315, .394 and .472") terminal blocks available
Jumpers available in 2 or 3 circuit lengths

Beau®
Barrier Strips

Beau terminal blocks provide a robust connection between wires and the PCB.

Beau terminal blocks are a great connector for their durability and versatility. Barrier strips can handle currents of up to 45.0A per circuit and all are rated for 300 or 600V. With the variety of terminal styles, screws and other options available on barrier strips, these parts can be customized in many ways.

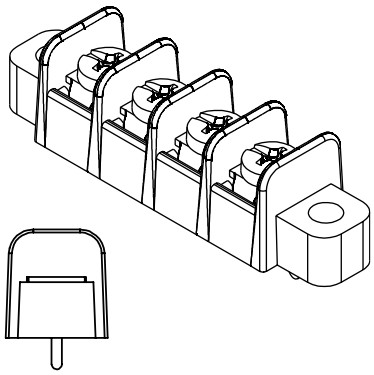
Special additions to barrier strips such as topside hardware, marker strips and hinged covers ensure that you get the best possible connector designed specifically for your application.

Features

- Optional topside hardware allows for further customization to fit your design requirements
- Robust and durable screw terminals are ultrasonically welded into the thermoplastic insulator, reducing the risk for terminal twisting and solder joint failure
- Tri-barrier construction of some barrier strips provides a back wall to prevent over insertion and shorting
- No special tools required to terminate wires, only a No. 2 screwdriver required
- Broad range of screw and terminal options improves interconnect performance
- Various imprinting styles aid in labeling circuits for wiring, testing and repair in the field
- RoHS and ELV compliant

8.26mm (.325") Pitch Barrier Terminal Strips

38700
PC Terminal



Reference Information

Packaging: Tray
UL File No.: E48521
Flammability: UL 94V-0
Designed In: Inches

Electrical

Voltage: 300V
Current: 15.0A
Dielectric Withstanding Voltage: 1600V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Recommended Tightening Torque: 1.36Nm (12 in.-lb)

Physical

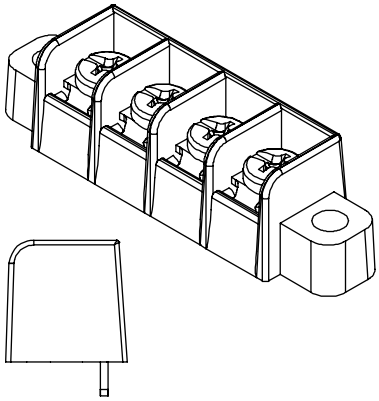
Housing: PBT, black
Terminal: Brass
Screw: Steel, #6-32, Phillips/Slot combo head
Plating: Terminal Area—Tin
Screw—Zinc with clear chromate
Wire Range: 14 to 22 AWG

Circuits	Order No.		Lead-free
	With Mounting Ends	Without Mounting Ends	
2	38700-6102	38700-6302	Yes
3	38700-6103	38700-6303	
4	38700-6104	38700-6304	
5	38700-6105	38700-6305	
6	38700-6106	38700-6306	
7	38700-6107	38700-6307	
8	38700-6108	38700-6308	
9	38700-6109	38700-6309	
10	38700-6110	38700-6310	
11	38700-6111	38700-6311	
12	38700-6112	38700-6312	
13	38700-6113	38700-6313	
14	38700-6114	38700-6314	

Circuits	Order No.		Lead-free
	With Mounting Ends	Without Mounting Ends	
15	38700-6115	38700-6315	Yes
16	38700-6116	38700-6316	
17	38700-6117	38700-6317	
18	38700-6118	38700-6318	
19	38700-6119	38700-6319	
20	38700-6120	38700-6320	
21	38700-6121	38700-6321	
22	38700-6122	38700-6322	
23	38700-6123	38700-6323	
24	38700-6124	38700-6324	
25	38700-6125	38700-6325	
26	38700-6126	38700-6326	

8.26mm (.325") Pitch Single Row Tri-Barrier Terminal Strips

38704
PC Terminal



Reference Information
Packaging: Tray
UL File No.: E48521
Flammability: UL 94V-0
Designed In: Inches

Electrical
Voltage: 300V
Current: 15.0A
Dielectric Withstanding Voltage: 1600V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Recommended Tightening Torque: 1.36Nm (12 in.-lb)

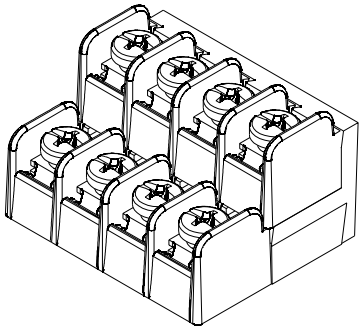
Physical
Housing: PBT, black
Terminal: Brass
Screw: Steel, #6-32, Phillips/Slot combo head
Plating: Terminal Area—Tin
Screw—Zinc with clear chromate
Wire Range: 14 to 22 AWG

Circuits	Order No.		Lead-free
	With Mounting Ends	Without Mounting Ends	
2	38704-4002	38704-4102	Yes
3	38704-4003	38704-4102	
4	38704-4004	38704-4102	
5	38704-4005	38704-4102	
6	38704-4006	38704-4102	
7	38704-4007	38704-4102	

Circuits	Order No.		Lead-free
	With Mounting Ends	Without Mounting Ends	
8	38704-4008	38704-4108	Yes
9	38704-4009	38704-4109	
10	38704-4010	38704-4110	
11	38704-4011	38704-4111	
12	38704-4012	38704-4112	

8.26mm (.325") Pitch Dual Level Barrier Terminal Strips

38706
Dual Level, PC Terminal



Reference Information
Packaging: Tray
UL File No.: E48521
Flammability: UL 94V-0

Electrical
Voltage: 300V
Current: 15.0A
Insulation Resistance: 5000 Megohms min.
Dielectric Withstanding Voltage: 1600V AC

Mechanical
Recommended Tightening Torque: 1.36Nm (12 in-lb.)
Wire Range: 14 to 22 AWG

Physical
Housing: Polysulfone, black
Terminal: Brass
Screw: Steel, #6-32, Phillips/Slot combo head
Plating: Terminal—Tin
Screw—Zinc with clear chromate

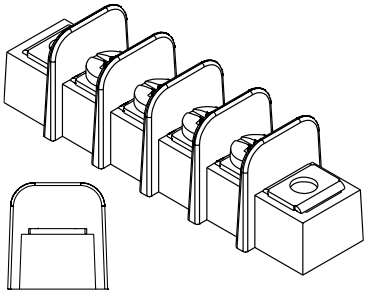
Circuits	Order No.	Lead-free
4	38706-0004	Yes
6	38706-0006	
8	38706-0008	
10	38706-0010	
12	38706-0012	
14	38706-0014	

Circuits	Order No.	Lead-free
16	38706-0016	Yes
18	38706-0018	
20	38706-0020	
22	38706-0022	
24	38706-0024	

9.53mm (.375") Pitch Single Row Barrier Terminal Strips

38720

Panel Mount



Reference Information
Packaging: Tray
UL File No.: E48521
Flammability: UL 94V-0
Designed In: Inches

Electrical
Voltage: 300V
Current: 15.0A
Dielectric Withstanding Voltage: 1600V AC
Insulation Resistance: 5000 Megohms min.

Mechanical
Recommended Tightening Torque: 1.36Nm (12 in.-lb)

Physical
Housing: PBT, black
Terminal: Brass
Screw: Steel, #6-32, Phillips/Slot combo head
Plating: Terminal Area—Tin
Screw—Zinc with clear chromate
Wire Range: 14 to 22 AWG

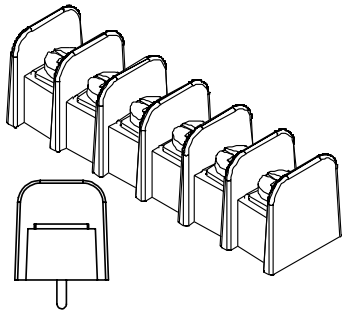
Circuits	Order No.		Lead-free
	With Mounting Ends	Without Mounting Ends	
2	38720-0202	38720-0302	Yes
3	38720-0203	38720-0303	
4	38720-0204	38720-0304	
5	38720-0205	38720-0305	
6	38720-0206	38720-0306	
7	38720-0207	38720-0307	
8	38720-0208	38720-0308	
9	38720-0209	38720-0309	
10	38720-0210	38720-0310	
11	38720-0211	38720-0311	
12	38720-0212	38720-0312	
13	38720-0213	38720-0313	
14	38720-0214	38720-0314	

Circuits	Order No.		Lead-free
	With Mounting Ends	Without Mounting Ends	
15	38720-0215	38720-0315	Yes
16	38720-0216	38720-0316	
17	38720-0217	38720-0317	
18	38720-0218	38720-0318	
19	38720-0219	38720-0319	
20	38720-0220	38720-0320	
21	38720-0221	38720-0321	
22	38720-0222	38720-0322	
23	38720-0223	38720-0323	
24	38720-0224	38720-0324	
25	38720-0225	38720-0325	
26	38720-0226	38720-0326	

9.53mm (.375") Pitch Single Row Barrier Terminal Strips

38720

PC Terminal



Reference Information
Packaging: Tray
UL File No.: E48521
Flammability: UL 94V-0
Designed In: Inches

Electrical
Voltage: 300V
Current: 15.0A
Dielectric Withstanding Voltage: 1600V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Recommended Tightening Torque: 1.36Nm (12 in.-lb)

Physical
Housing: PBT, black
Terminal: Brass
Screw: Steel, #6-32, Philips/Slot combo head
Plating: Terminal Area—Tin
Screw—Zinc with clear chromate
Wire Range: 14 to 22 AWG

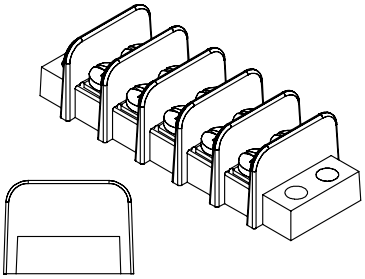
Circuits	Order No.		Lead-free
	With Mounting Ends	Without Mounting Ends	
2	38720-6202	38720-6302	Yes
3	38720-6203	38720-6303	
4	38720-6204	38720-6304	
5	38720-6205	38720-6305	
6	38720-6206	38720-6306	
7	38720-6207	38720-6307	
8	38720-6208	38720-6308	
9	38720-6209	38720-6309	
10	38720-6210	38720-6310	
11	38720-6211	38720-6311	
12	38720-6212	38720-6312	
13	38720-6213	38720-6313	
14	38720-6214	38720-6314	

Circuits	Order No.		Lead-free
	With Mounting Ends	Without Mounting Ends	
15	38720-6215	38720-6315	Yes
16	38720-6216	38720-6316	
17	38720-6217	38720-6317	
18	38720-6218	38720-6318	
19	38720-6219	38720-6319	
20	38720-6220	38720-6320	
21	38720-6221	38720-6321	
22	38720-6222	38720-6322	
23	38720-6223	38720-6323	
24	38720-6224	38720-6324	
25	38720-6225	38720-6325	
26	38720-6226	38720-6326	

9.53mm (.375") Pitch Double Row Barrier Terminal Strips

38760/38770

Panel Mount



Reference Information
Packaging: Tray
UL File No.: E48521
Flammability: UL 94V-0
Designed In: Inches

Electrical
Voltage: 300V
Current: 15.0A
Dielectric Withstanding Voltage: 1600V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Recommended Tightening Torque: 1.26Nm (12 in.-lb)

Physical
Housing: PBT, black
Terminal: Brass
Screw: Steel, #6-32, Philips/Slot combo head
Plating: Terminal Area—Tin
Screw—Zinc with clear chromate
Wire Range: 14 to 22 AWG

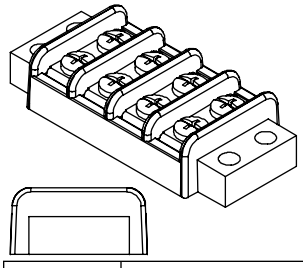
Circuits	Order No.		Lead-free
	Low Profile	Standard	
2	38770-0102	38760-0102	Yes
3	38770-0103	38760-0103	
4	38770-0104	38760-0104	
5	38770-0105	38760-0105	
6	38770-0106	38760-0106	
7	38770-0107	38760-0107	
8	38770-0108	38760-0108	
9	38770-0109	38760-0109	
10	38770-0110	38760-0110	
11	38770-0111	38760-0111	
12	38770-0112	38760-0112	
13	38770-0113	38760-0113	
14	38770-0114	38760-0114	
15	38770-0115	38760-0115	

Circuits	Order No.		Lead-free
	Low Profile	Standard	
16	38770-0116	38760-0116	Yes
17	38770-0117	38760-0117	
18	38770-0118	38760-0118	
19	38770-0119	38760-0119	
20	38770-0120	38760-0120	
21	38770-0121	38760-0121	
22	38770-0122	38760-0122	
23	38770-0123	38760-0123	
24	38770-0124	38760-0124	
25	38770-0125	38760-0125	
26	38770-0126	38760-0126	
27	38770-0127	38760-0127	
28	38770-0128	38760-0128	
29	38770-0129	38760-0129	
30	38770-0130	38760-0130	

11.11mm (.438") Pitch Double Row Barrier Terminal Strips

38780

Panel Mount



Reference Information
Packaging: Tray
UL File No.: E48521
Flammability: UL 94V-0
Designed In: Inches

Electrical
Voltage: 300V
Current: 15.0A
Dielectric Withstanding Voltage: 1600V AC
Insulation Resistance: 1000 Megohms min.

Mechanical
Recommended Tightening Torque: 1.36Nm (12 in.-lb)

Physical
Housing: PBT, black
Terminal: Brass
Screw: Steel, #6-32, Phillips/Slot combo head
Plating: Terminal Area—Nickel
Screw—Zinc with clear chromate
Wire Range: 14 to 22 AWG

Circuits	Order No.	Lead-free
2	38780-0102	Yes
3	38780-0103	
4	38780-0104	
5	38780-0105	
6	38780-0106	
7	38780-0107	
8	38780-0108	
9	38780-0109	
10	38780-0110	
11	38780-0111	

Circuits	Order No.	Lead-free
12	38780-0112	Yes
13	38780-0113	
14	38780-0114	
15	38780-0115	
16	38780-0116	
17	38780-0117	
18	38780-0118	
19	38780-0119	
20	38780-0120	
21	38780-0121	

Circuits	Order No.	Lead-free
22	38780-0122	Yes
23	38780-0123	
24	38780-0124	
25	38780-0125	
26	38780-0126	
27	38780-0127	
28	38780-0128	
29	38980-0129	
30	38780-0130	

Beau™ Power Connectors Panel Mount Plugs and Sockets

38330

Angle Bracket, Angle Bracket Tapped, Without Angle Bracket



Angle Bracket shown

Features and Benefits

- Robust blade contacts resist damage from improper mating
- Large surface area of dual wipe female contact produces maximum current capacity
- All circuits are rated for full current load

Reference Information

Packaging: Tray
UL File No.: E34763
CSA File No.: 22156
Designed In: Inches

Electrical

Voltage: 250V
Current: 10.0A

Mechanical

Durability: 500 cycles

Physical

Housing: Phenolic
Plug Contact: Brass
Socket Contact: Phosphor Bronze
Plating: Plug Contact—Tin
Socket Contact—Tin

Plugs

Circuits	Order No.			Lead-free
	Angle Bracket	Angle Bracket Tapped	Without Angle Bracket	
2	38330-0102	38330-1502	38330-2202	Yes
3	38330-0103	38330-1503	38330-2203	
4	38330-0104	38330-1504	38330-2204	
6	38330-0106	38330-1506	38330-2206	
8	38330-0108	38330-1508	38330-2208	
10	38330-0110	38330-1510	38330-2210	
12	38330-0112	38330-1512	38330-2212	
15	38330-0115	38330-1515	38330-2215	
18	38330-0118	38330-1518	38330-2218	
21	38330-0121	38330-1521	38330-2221	
24	38330-0124	38330-1524	38330-2224	
27	38330-0127	38330-1527	38330-2227	
30	38330-0130	38330-1530	38330-2230	
33	38330-0133	38330-1533	38330-2233	

Sockets

Circuits	Order No.			Lead-free
	Angle Bracket	Angle Bracket Tapped	Without Angle Bracket	
2	38330-0502	38330-1902	38330-2602	Yes
3	38330-0503	38330-1903	38330-2603	
4	38330-0504	38330-1904	38330-2604	
6	38330-0506	38330-1906	38330-2606	
8	38330-0508	38330-1908	38330-2608	
10	38330-0510	38330-1910	38330-2610	
12	38330-0512	38330-1912	38330-2612	
15	38330-0515	38330-1915	38330-2615	
18	38330-0518	38330-1918	38330-2618	
21	38330-0521	38330-1921	38330-2621	
24	38330-0524	38330-1924	38330-2624	
27	38330-0527	38330-1927	38330-2627	
30	38330-0530	38330-1930	38330-2630	
33	38330-0533	38330-1933	38330-2633	

Note: Solder Eye is the standard contact tail for plugs and sockets. Contact Molex for additional contact options and order numbers.

Beau™ Power Connectors Cable Mount Plugs and Sockets

38331

Cable Clamp Top



Cable Clamp Top shown

Features and Benefits

- Latch and keeper hardware ensure that plug and socket remain mated even in high vibration applications
- Robust blade contacts resist damage from improper mating
- Large surface area of dual wipe female contact produces maximum current capacity
- All circuits are rated for full current load

Reference Information

Packaging: Tray
UL File No.: E34763
CSA File No.: 22156
Designed In: Inches

Electrical

Voltage: 250V
Current: 10.0A

Mechanical

Durability: 500 cycles

Physical

Housing: Phenolic
Plug Contact: Brass
Socket Contact: Phosphor Bronze
Plating: Plug Contact—Tin
Socket Contact—Tin

Plugs

Circuits	Order No.	Lead-free
	Cable Clamp Top	
2	38331-5602	Yes
3	38331-5603	
4	38331-5604	
6	38331-5606	
8	38331-5608	
10	38331-5610	
12	38331-5612	

Circuits	Order No.	Lead-free
	Cable Clamp Top	
15	38331-5615	Yes
18	38331-5618	
21	38331-5621	
24	38331-5624	
27	38331-5627	
30	38331-5630	
33	38331-5633	

Sockets

Circuits	Order No.	Lead-free
	Cable Clamp Top	
2	38331-8002	Yes
3	38331-8003	
4	38331-8004	
6	38331-8006	
8	38331-8008	
10	38331-8010	
12	38331-8012	

Circuits	Order No.	Lead-free
	Cable Clamp Top	
15	38331-8015	Yes
18	38331-8018	
21	38331-8021	
24	38331-8024	
27	38331-8027	
30	38331-8030	
33	38331-8033	

Note: Solder Eye is the standard contact tail for plugs and sockets.
Contact Molex for additional contact options and order numbers.

Beau™ Power Connectors Panel Mount Plugs and Sockets

38540
Angle Bracket



Angle Bracket shown

Features and Benefits
- Robust blade contacts resist damage from improper mating
- Large surface area of dual wipe female contact produces maximum current capacity
- All circuits are rated for full current load

Reference Information
Packaging: Tray
UL File No.: E34763
CSA File No.: 22156
Designed In: Inches

Electrical
Voltage: 250V
Current: 15.0A

Mechanical
Durability: 500 cycles

Physical
Housing: Phenolic
Plug Contact: Brass
Socket Contact: Phosphor Bronze
Plating: Plug Contact—Tin
Socket Contact—Tin

Plugs

Circuits	Order No. Angle Bracket	Lead-free
4	38540-0104	Yes
5	38540-0105	
6	38540-0106	
7	38540-0107	
8	38540-0108	
9	38540-0109	
10	38540-0110	
11	38540-0111	
12	38540-0112	
13	38540-0113	
14	38540-0114	
15	38540-0115	
16	38540-0116	

Note: Solder Hook is the standard contact tail for plugs. Contact Molex for additional contact options and order numbers.

Sockets

Circuits	Order No. Angle Bracket	Lead-free
4	38540-0604	Yes
5	38540-0605	
6	38540-0606	
7	38540-0607	
8	38540-0608	
9	38540-0609	
10	38540-0610	
11	38540-0611	
12	38540-0612	
13	38540-0613	
14	38540-0614	
15	38540-0615	
16	38540-0616	

Note: Solder Eye is the standard contact tail for sockets. Contact Molex for additional contact options and order numbers.

Beau™ Power Connectors Cable Mount Plugs and Sockets

38541
Cable Clamp Top



Cable Clamp Top shown

Features and Benefits
- Strain relief cable clamps can be used with round or flat cable
- Robust blade contacts resist damage from improper mating
- Large surface area of dual wipe female contact produces maximum current capacity
- All circuits are rated for full current load

Reference Information
Packaging: Tray
UL File No.: E34763
CSA File No.: 22156
Designed In: Inches

Electrical
Voltage: 250V
Current: 15.0A

Mechanical
Durability: 500 cycles

Physical
Housing: Phenolic
Plug Contact: Brass
Socket Contact: Phosphor Bronze
Plating: Plug Contact—Tin
Socket Contact—Tin

Plugs

Circuits	Order No. Cable Clamp Top	Lead-free
4	38541-5404	Yes
5	38541-5405	
6	38541-5406	
7	38541-5407	
8	38541-5408	
9	38541-5409	
10	38541-5410	
11	38541-5411	
12	38541-5412	
13	38541-5413	
14	38541-5414	
15	38541-5415	
16	38541-5416	

Note: Solder Hook is the standard contact tail for plugs. Contact Molex for additional contact options and order numbers.

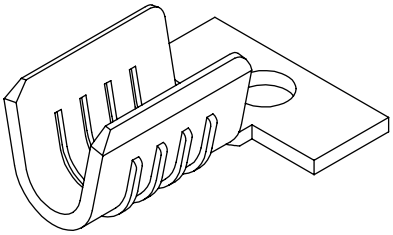
Sockets

Circuits	Order No. Cable Clamp Top	Lead-free
4	38541-8404	Yes
5	38541-8405	
6	38541-8406	
7	38541-8407	
8	38541-8408	
9	38541-8409	
10	38541-8410	
11	38541-8411	
12	38541-8412	
13	38541-8413	
14	38541-8414	
15	38541-8415	
16	38541-8416	

Note: Solder Eye is the standard contact tail for sockets. Contact Molex for additional contact options and order numbers.

Wire Splice Terminal

35760



Features and Benefits

- Uninsulated splices shaped like an open "U" accommodate stranded wire
- Non-insulation support

Reference Information

Product Specification: PS-35760-003
Packaging: Reel
Designed In: Millimeters

Electrical

Current: 25.0A
Contact Resistance: 3 milliohms max.

Physical

Contact: Brass
Plating: Tin

Order No.	Material	Wire Range	Lead-free
35760-7100	Brass	24-22	Yes
35760-7110	Tin-plated Brass		
35760-7200	Brass	22-18	
35760-7205	Tin-plated Brass		
35760-7210	Tin-plated Brass		
35760-7300	Brass	16-14	
35760-7310	Tin-plated Brass		
35760-7400	Brass	14-10	
35760-7410	Tin-plated Brass		

www.molex.com/customer.html?seriesNumber=35760

Wire Management Products



Heat Shrink Tubing

Molex offers a wide variety of heat shrink tubing including thin-wall, adhesive-lined dual-wall and heavy-wall polyolefin tubing as well as heat shrinkable PVC.

Thin (single) wall is high quality tubing with a wide variety of uses. It is made from flame retardant polyolefin, giving it excellent physical, chemical and electrical properties that meet industrial and military requirements for highly reliable, general-purpose tubing.

Dual-wall tubing is adhesive lined, and manufactured using fully flame retardant polyolefin tubing which offers superior strain relief as well as environmental sealing capabilities.

Heavy-wall tubing is UL rated for direct burial applications. This tubing is chemically cross linked during manufacturing which ensures that it will not split or rupture during installation, even if overheated.

Closed-End Connectors

Molex nylon closed-end connectors feature two-piece construction. A translucent nylon insulator is adhered to the pure electrolytic, copper insert. Closed-end connectors are used in a wide variety of situations to "pigtail" two or more wires together, and can be used as a dead end splice or one power line and multiple lead offs.

Multi-Lock Connectors

The Multi-Lock is an insulation displacement connector that allows quick tap-and-run connections. Using ordinary channel lock pliers, these color-coded connectors make quick, reliable, pre-insulated splices without having to strip, twist or solder.

The Multi-Lock connector consists of a polypropylene insulation with a tin-plated brass barb. Once the appropriate wires have been inserted, the barb is squeezed such that it "displaces" the insulation and makes contact with the wire, creating an electrical connection. The cover is then snapped into position, completely insulating the barb and wire.

Wire Connectors

Molex Wire Connectors offer a cost effective way to produce safe and secure wire connections. The tough, thermoplastic shell provides UL-94V2 flame retardant protection while the fixed square-wire spring construction offers a secure connection that will not relax over time.

Standard Twist Locks feature a threaded funnel entry to easily guide wires into the connector.

Wing Locks offer deep gripping ribs and swept-back wings that permit a higher torque.

High Temp Wire Connectors are used in applications that require continued exposure to heat.

Cable Ties

Molex offers a full line of standard cable ties as well as selected mounting and identification ties. Our cable ties are constructed from durable nylon 6/6 and offer a compact, one piece design. These industry standard products are designed to meet or exceed the MIL-S-23190E tensile strength requirements.

Heavy-Duty Rectangular Industrial Connectors



INTRODUCTION

Molex's line of HMC heavy-duty rectangular industrial connectors are designed for rugged applications such as robotics, machinery equipment, transportation, power generation and industrial controls. HMC provides an innovative new approach to traditional heavy-duty connections.

The HMC series includes some unique design features such as: rugged metal cable-side hood with easy-to-actuate "one-touch" lock; removable modular housing inserts that can be custom configured; and various circuit and amperage types to meet different power and signal needs.

Features

HMC™ Series

- Unique rounded-shape metal hood with single-action lock for space savings and easy handling
- Easy field removal of modules
- Cable-clamp solution that integrates sealed ring and holder into one-piece cover
- Single-module type enables housing inserts to be loaded into either side
- Multi-module type enables flexible module configurations for hybrid application needs

HMC Series—Module Type



12 circuits, 35.0/10.0A, IP65



40 circuits, 10.0A, IP65



52 circuits, 10.0A, IP65

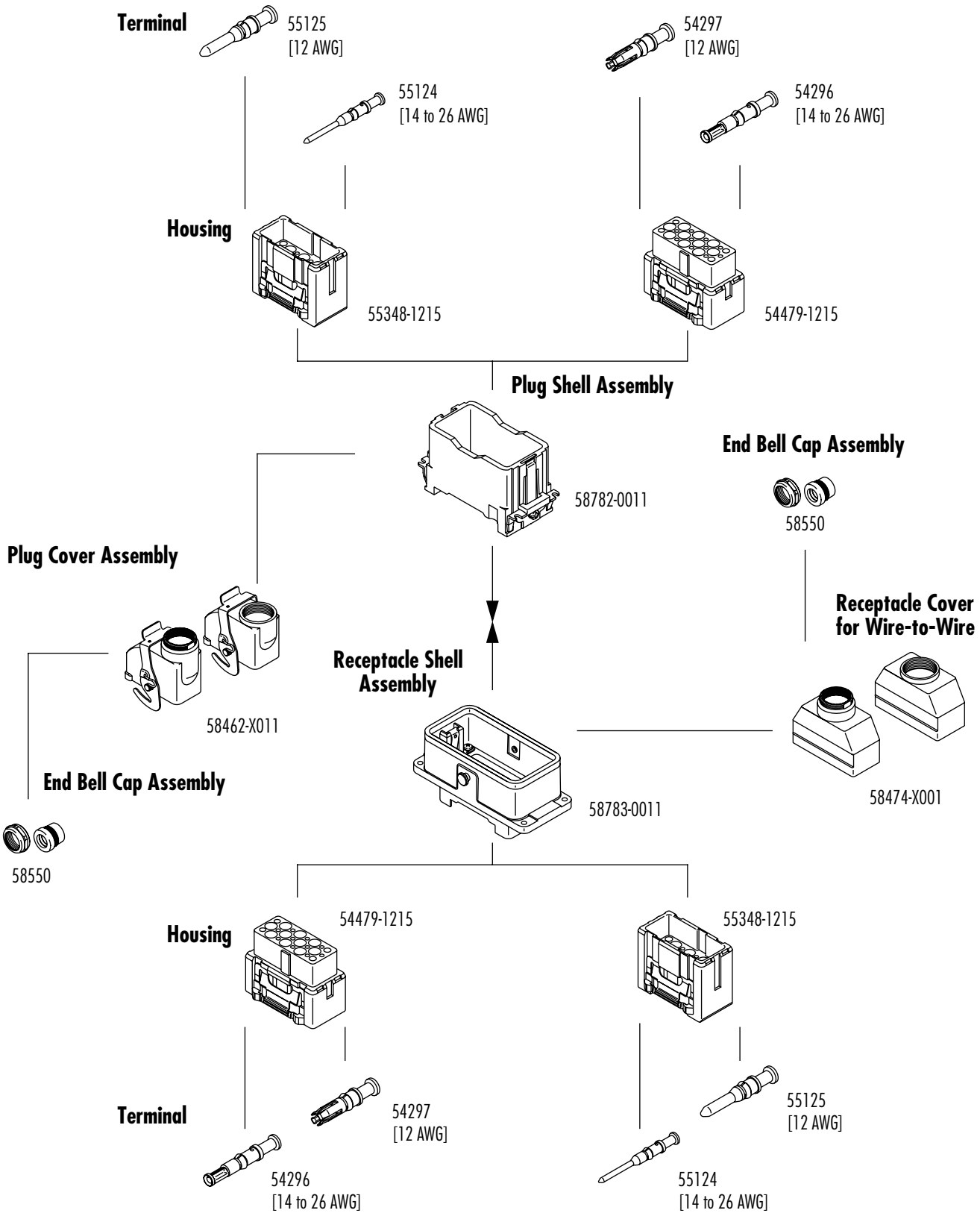


36 circuits, 12.0A, IP65

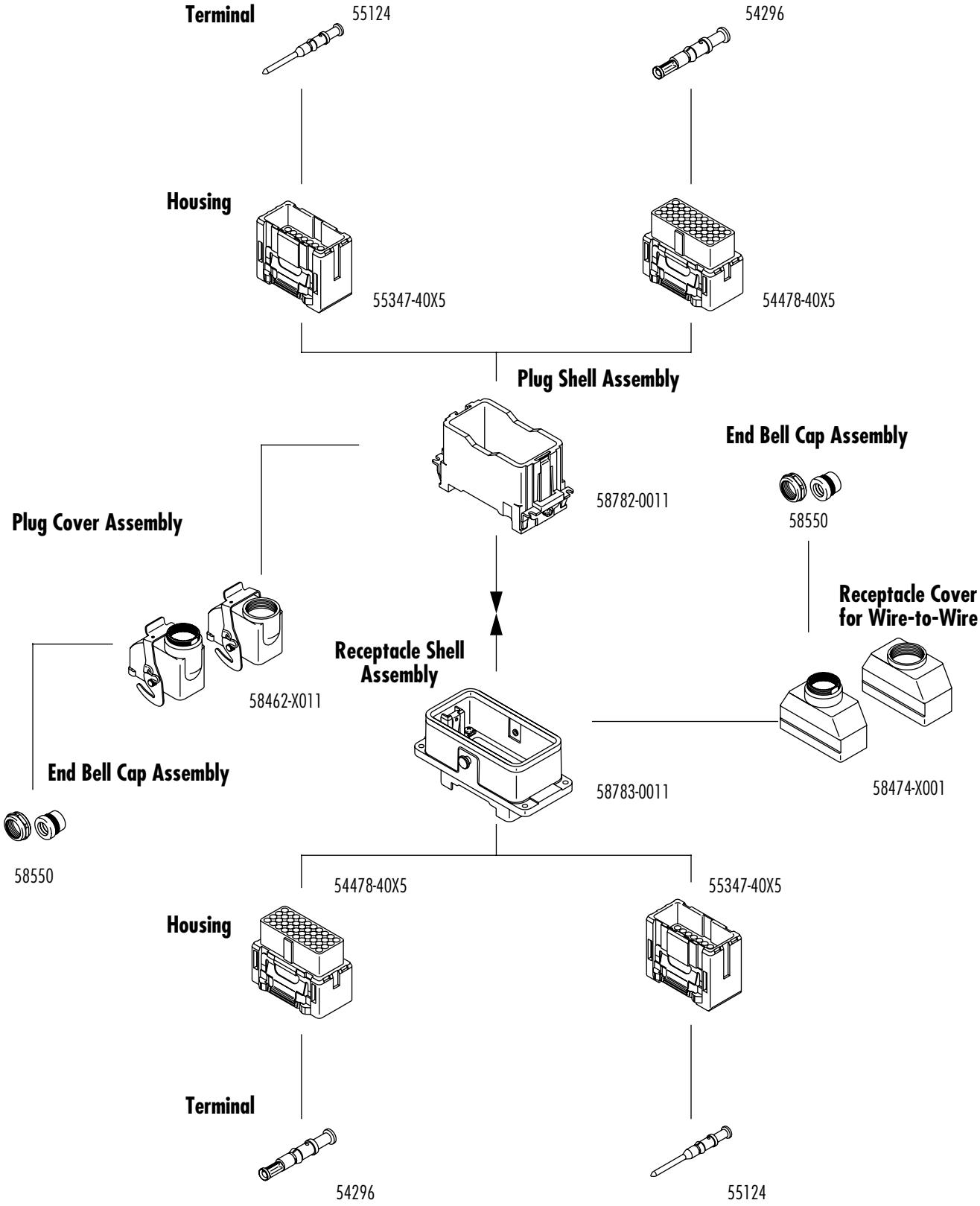


48/72 circuits, 20.0/12.0A, IP65

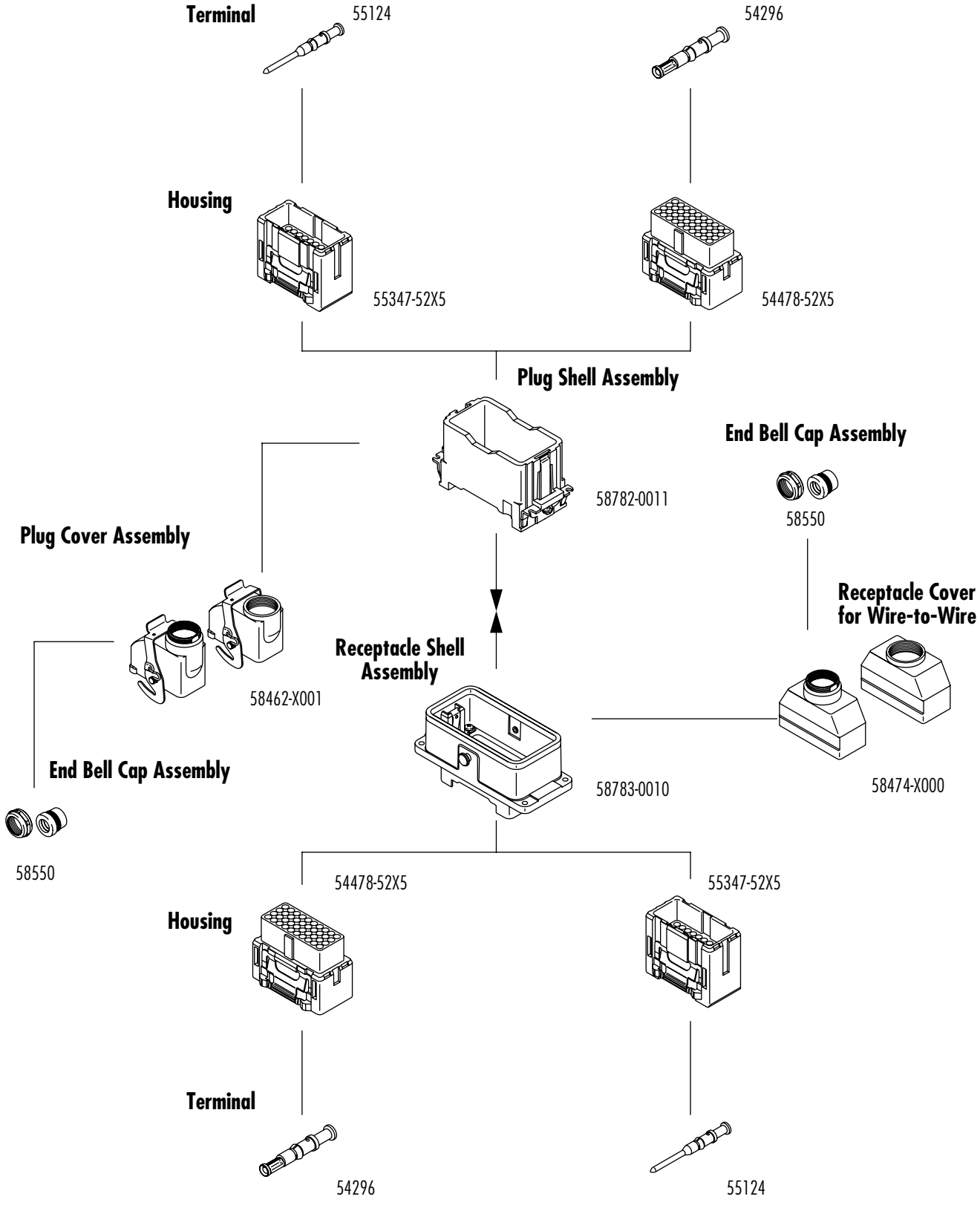
HMC™
12 circuits—35A/ 10 circuits - IP65 10A/2 circuits Connection System



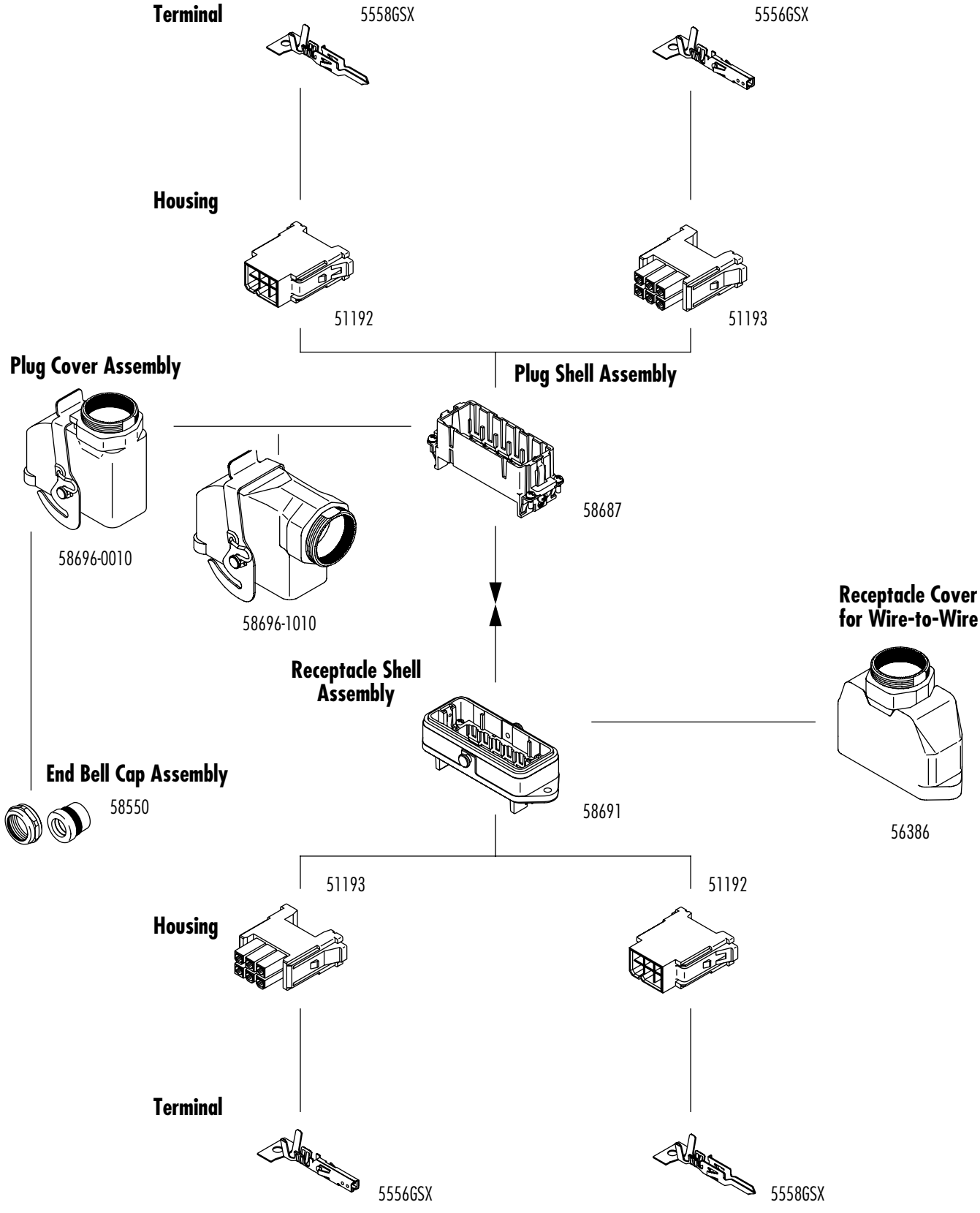
HMC™
10A/40 circuits—IP65
Connection System



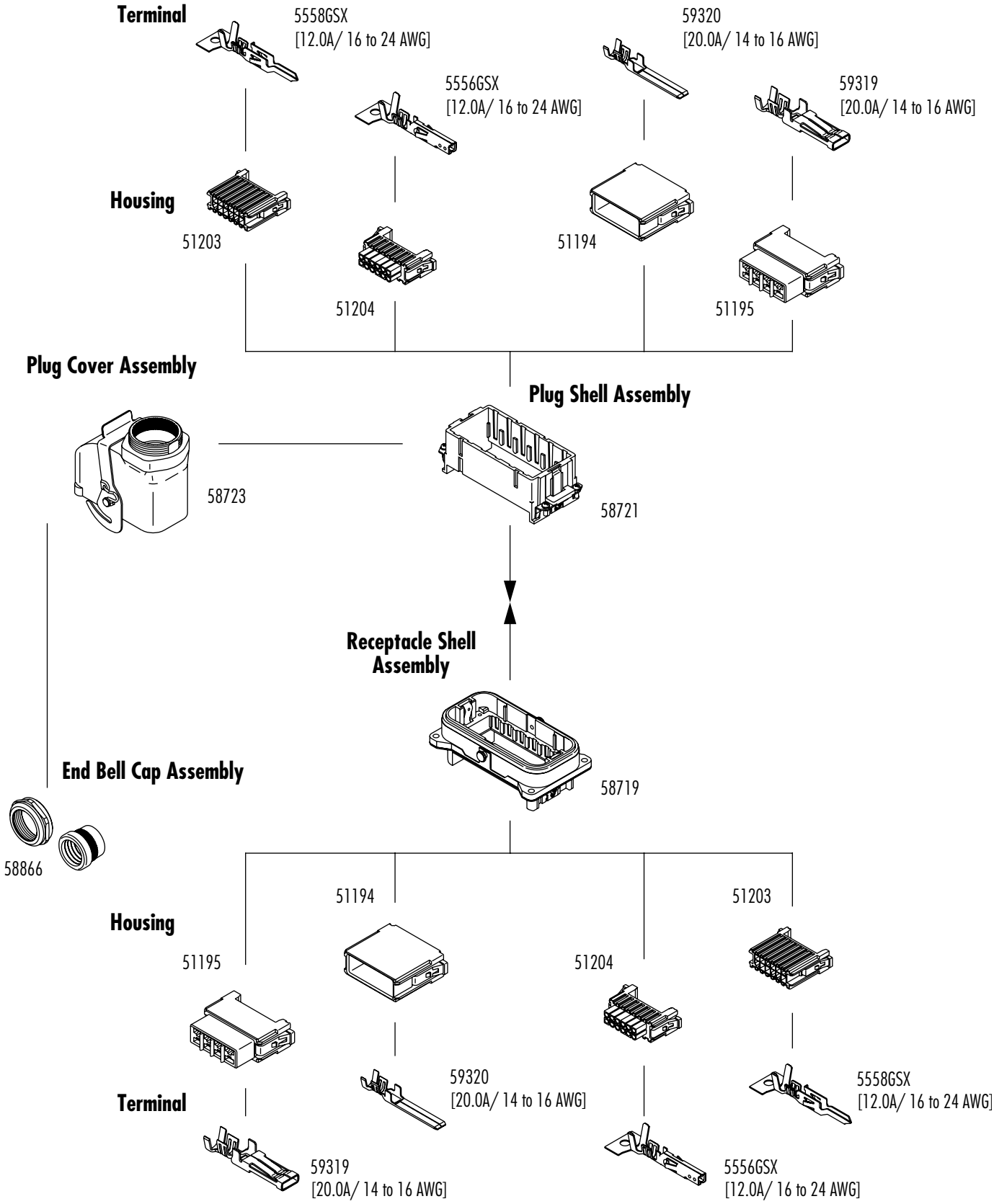
HMC™
10A/52 circuits—IP65
Connection System



HMC™
12A/36 circuits—IP65
Connection System



HMC™
(20A/48 circuits)—IP65
(12A/72 circuits)
Connection System



Mini-HMC™ Rectangular Industrial Connector System

Introduction

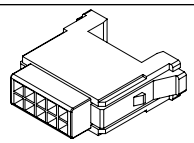
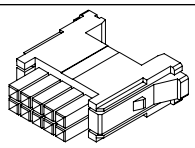
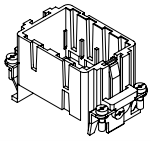
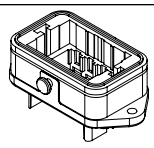
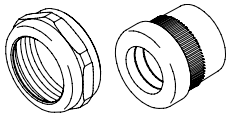
Molex's Mini-HMC system was developed to meet the needs of smaller industrial robatic applications. Mini-HMC provides the ruggedness of traditional Heavy Duty connectors but in a smaller form factor.

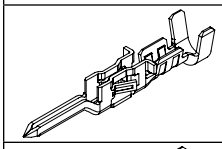
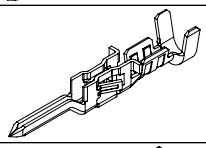
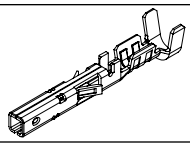
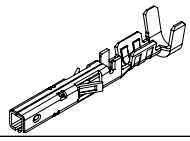
Mini-HMC offers many of the same unique features of our standard HMC™ (Heavy Duty Modular) connectors such as "one-touch" lock and removable housings. The system also utilizes the same crimp terminals as our CRC™ (Compact Robotic) industrial connectors.

Specifications

- Current: 7.0A
- Voltage: 250V
- Circuit Size Range: 40 (fully loaded)
- Contact Resistance: 10 milliohms max.
- Insulation Resistance: 1000 Megohms min.
- Dielectric Strength: AC 1500V/1 minute
- Contact Retention Force: 24.5N
- Durability: 50 cycles

SELECTION MATRIX

	Description	Order No.	Circuits	Rows	Material	Plating	Packaging
	Plug	500812-1000	10	2	Nylon 66, Glass-Filled UI 94V-0		Bag
	Receptacle	500813-1000	10	2	Nylon 66, Glass-Filled UI 94V-0		Bag
	Plug Shell	500810-0000 (A) 500810-0010 (B)	40	8	Plug Shell: Aluminum Alloy Plug Grounded Terminal: Brass Head Screws: Steel	Nickel	Bag
	Receptacle Shell	500809-0000 (A) 500809-0010 (B)	40	8	Receptacle Shell: Aluminum Alloy Receptacle Ground Terminal: Brass Head Screws: Steel	Nickel	Bag
	Cover	500811-0010	40		Plug Cover: Aluminum Alloy Cover Lock Pin/Level Spring: Stainless Steel	Nickel	Bag
	End Bell Cap Assembly	58550-000*			Cable Cap: Brass Bush: PVC	Nickel	Bag

	Description	Order No.	Material	Plating (Contact/Crimp)	Packaging
	AWG# 24-28	56118-8*28	Phosphor Bronze	Gold/Tin	-8228: Reel -8328: Bag
	AWG# 18-22	56119-8*28	Phosphor Bronze	Gold/Tin	-8228: Reel -8328: Bag
	AWG# 24-28	56120-8*28	Phosphor Bronze	Gold/Tin	-8428: Reel -8528: Bag
	AWG# 18-22	56121-8*28	Phosphor Bronze	Gold/Tin	-8428: Reel -8528: Bag

MX150L™ Sealed Connector System

The pre-assembled, submersible MX150L is a high performance connector system suitable for challenging, rugged and harsh applications.

The MX150L sealed connector system is designed to meet the need for a rugged, environmentally sealed connector system supporting both low-level signal applications as well as power applications up to 40.0A, from on-engine automotive and marine applications to off-road construction equipment applications. The system is comprised of wire-to-wire, wire-to-panel and wire-to-board configurations.

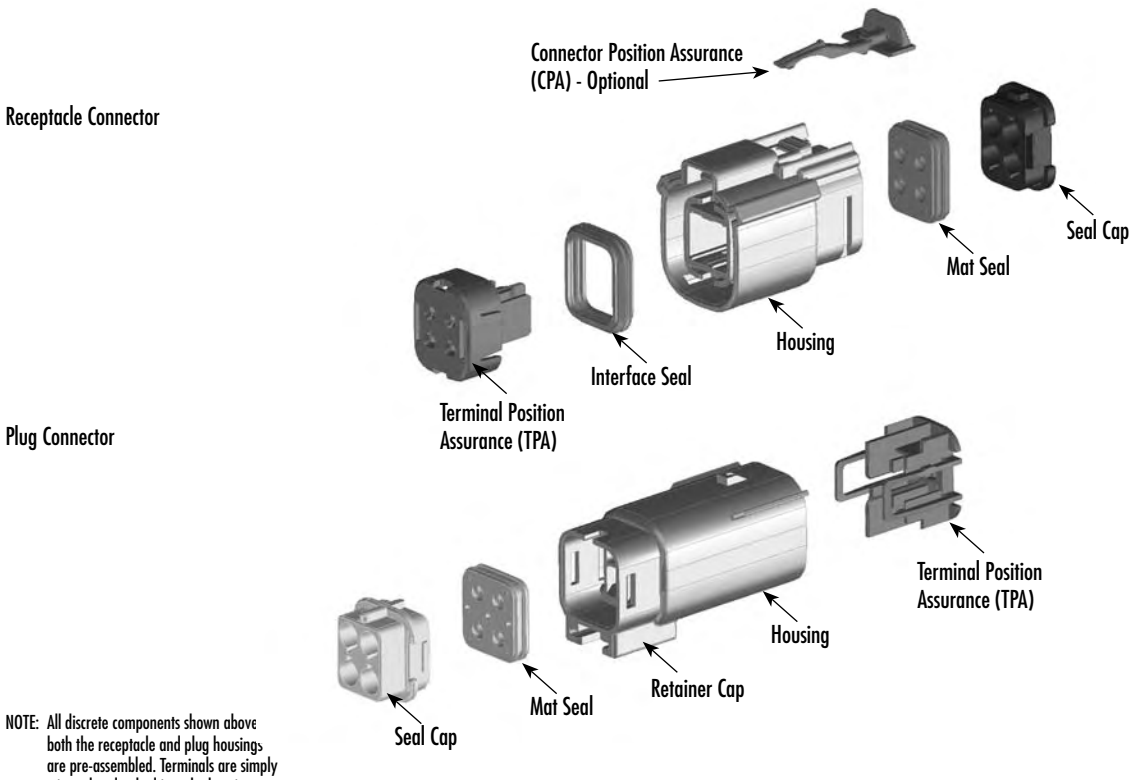
These innovative mat-sealed connectors are based upon the 1.50 and 2.50mm (.059 and .098") blade-type terminals. This design eliminates the need to purchase, handle and crimp individual wire seals to lower applied cost. The mat-seal design is a single silicone-based seal with individual wire openings and a seal cap to protect, securely retain and provide strain relief to the seal. The cost-effective connector design features all-in-one plug and receptacle housings with pre-assembled mat-wire and interfacial connector seals. Integral Terminal Position Assurance (TPA) and optional Connector Position Assurance (CPA) components eliminate time-consuming and costly assembly operations. Completing the application is as simple as crimping the appropriate terminal, inserting the crimped terminal lead and seating the TPA to its final locked position. No additional components are required.

Tooling solutions include FineAdjust™ crimp press applicators for high-volume production, as well as hand tools for low-volume production and field repairs.

Features and Benefits

- Pre-assembled connector housings, seals, TPA components and mat-seal cap shipped in 1 piece to provide applied labor and cost savings
- Integral TPA assures that crimped terminal leads are properly locked into connector (TPA will not seat into final lock position and connector system will not latch if terminal is not locked properly into position)
- Conforms to UL 1977, which allows for a UL recognized sealed connector system for use in data, signal, control and power applications
- Superior electrical and mechanical performance capabilities surpass performance of most mature competitive products in market
- Audible and tactile clicks on insertion, extraction and mating feedback facilitates reliable mating and terminal loading and removal
- Unused circuits can be blocked using plastic seal plugs, which facilitates flexibility of sealing unused circuits without adding complexity to part numbers and customer inventory
- Integral locking latch with secondary, pre-loaded CPA option assures that connector system is properly latched. CPA will not move to final locked position if connector is not latched. Confirms positive mating of connector
- Sealed panel mount plugs are equipped with a blind hole loss feature that reduces extra hardware while improving the sealing process during assembly by eliminating a leak path
- Integral, 2-way mat and interface seals designed and tested to IEC IP 67 exceeds "waterproof" demands as a true sealed connector system tested under submersed conditions in various fluids
- Easy terminal insertion and extraction provides quick, low-cost field repairs using common screwdriver, needle nose pliers and terminal extraction tool
- Protective mat-seal cap protects, securely retains and provides strain relief to wire seal interface
- Simple crimp, poke and plug application eliminates need to crimp individual wire seals

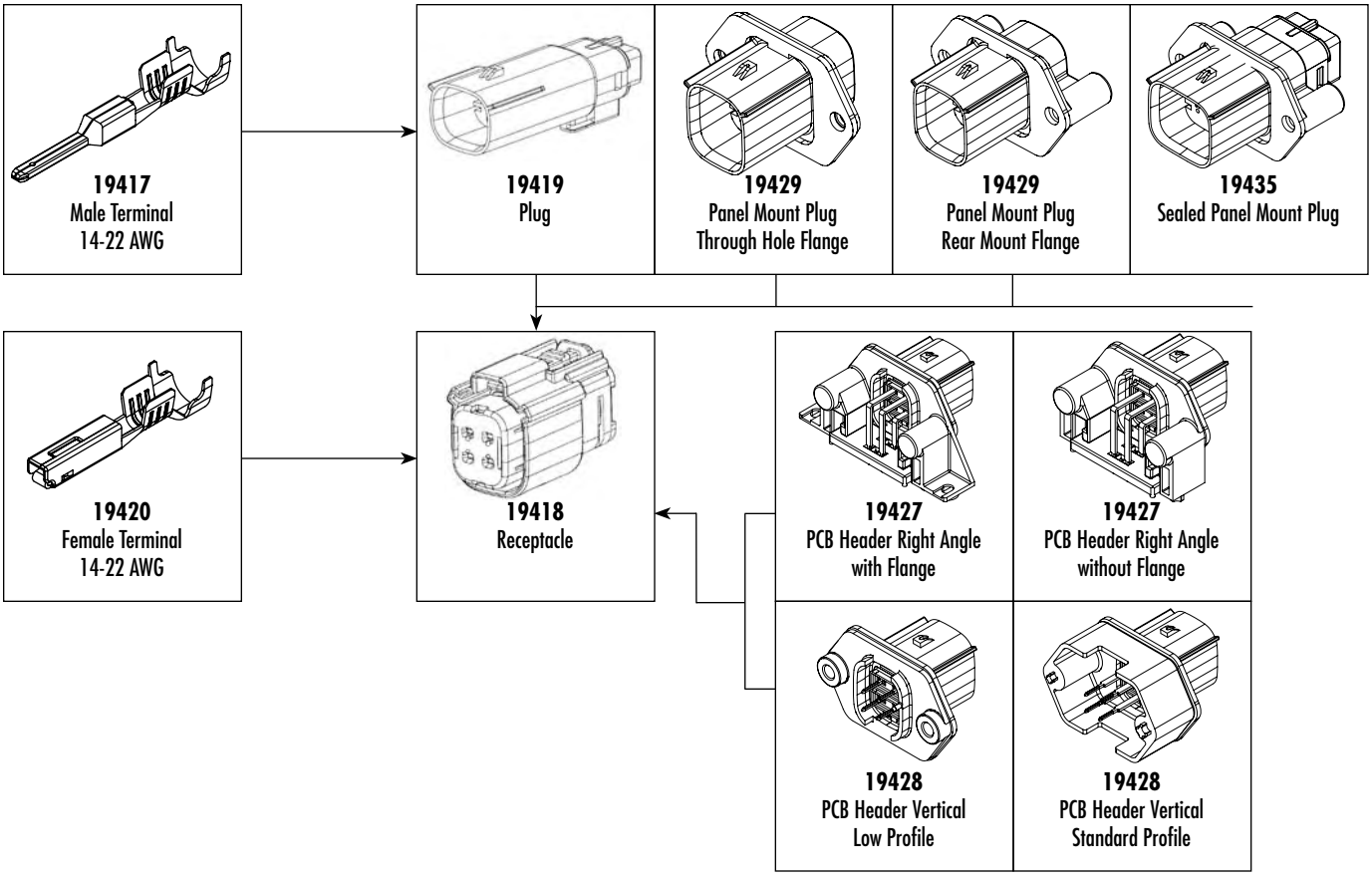
MX150L Sealed Connector Systems - Exploded View



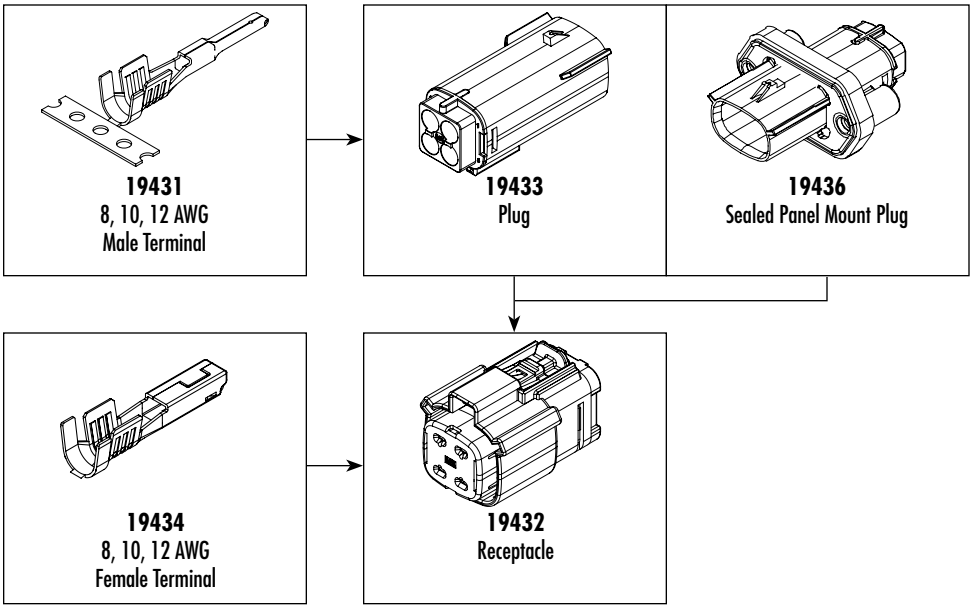
NOTE: All discrete components shown above both the receptacle and plug housings are pre-assembled. Terminals are simply crimped and poked into the housings. No additional wire seals, wedge locks or CPA locks are required.

MX150L™
Product Overview

14 TO 22 AWG Wire-to-Wire, Wire-to-Board and Panel Mount

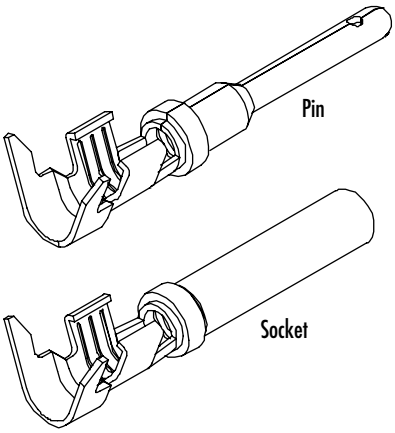


8, 10 and 12 AWG Wire-to-Wire and Panel Mount



XRC™ Extra Rugged Circular Sealed Connectors Crimp Terminal

84590



Reference Information
Packaging: Reel
Use With: 84501 and 84507 plug housings
84502 and 84508 receptacle housings
Designed In: Inches

Electrical
Current: 18 AWG—10.0A max.
16 and 14 AWG—13.0A max.
Contact Resistance: 30 milliohms max.

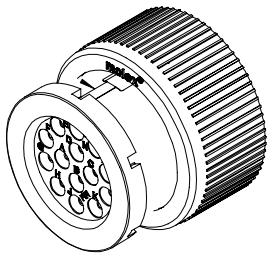
Mechanical
Contact Retention to Housing: 53.4N (12 lb)
Durability: 100 cycles

Physical
Contact: Copper Alloy
Plating: Contact Area—Nickel Overall
Underplating—Copper

Order No.	Wire Range (AWG)	Gender	Terminal Size	Insulation Outside Diameter	Lead-free
84590-0021	14 to 18	Pin	16	2.41 to 3.81mm (.095 to .150")	Yes
84590-0022				1.91 to 3.91mm (.075 to .150")	
84590-0020	16 to 18			1.40 to 2.16mm (.055 to .085")	
84590-0024	14 to 18	Socket		2.41 to 3.81mm (.095 to .150")	
84590-0023				1.91 to 3.91mm (.075 to .150")	
84590-0025	16 to 18			1.40 to 2.16mm (.055 to .085")	

XRC™ Extra Rugged Circular Sealed Connectors Plug Housing

84501



Features and Benefits
- Environmentally sealed to IP67 standard and protects against the ingress of dust, water and other contaminants to maintain the integrity of the mated pair
- Seal retainer lip is compatible with backshell and overmolding applications
- Bayonet style latch provides quick and easy connections for reduced installation and service time as well as ensures proper depth when mated
- Simple crimp-and-poke technology does not require terminal alignment when installing crimped wires
- Tactile and audible mating feedback facilitates reliable mating

Reference Information
Packaging: Tray
Mates With: 84508 receptacle
Use With: 84590 crimp terminals and
84509-0002 circuit plug
Designed In: Inches

Electrical
Current: 18 AWG—10.0A max.
16 and 14 AWG—13.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1600V AC
Insulation Resistance: 1000 Megohms min.

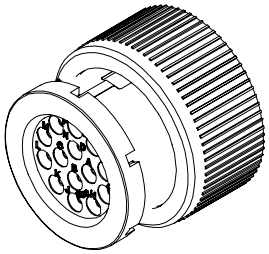
Mechanical
Contact Retention to Housing: 53.4N (12 lb)
Mating Force: 133.5N (30 lb) max.
Unmating Force: 26.7N (6 lb) min.
Durability: 100 cycles

Physical
Housing: Glass-filled PBT
Seals: Silicone rubber
Contact: Copper Alloy
Insulation Outside Diameter: Thin wall

Circuits	Shell Size	Order No.	Terminal Insert Configuration	Wire Range	Lead-free
14	18	84501-0001	Pin insert	14 to 18	Yes

XRC™ Extra Rugged Circular Sealed Connectors Plug Housing

84507



Features and Benefits

- Environmentally sealed to IP67 standard and protects against the ingress of dust, water and other contaminants to maintain the integrity of the mated pair
- Seal retainer lip is compatible with backshell and overmolding applications
- Bayonet style latch provides quick and easy connections for reduced installation and service time as well as ensures proper depth when mated
- Simple crimp-and-poke technology does not require terminal alignment when installing crimped wires
- Tactile and audible mating feedback facilitates reliable mating

Reference Information

Packaging: Tray
Mates With: 84502 receptacle
Use With: 84590 crimp terminals and
84509-0002 circuit plug
Designed In: Inches

Electrical

Current: 18 AWG—10.0A max.
16 and 14 AWG—13.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1600V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 53.4N (12 lb)
Mating Force: 133.5N (30 lb) max.
Unmating Force: 26.7N (6 lb) min.
Durability: 100 cycles

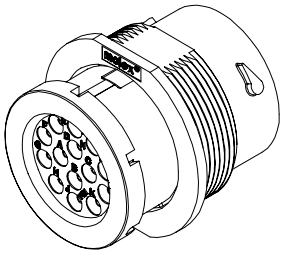
Physical

Housing: Glass-filled PBT
Seals: Silicone rubber
Contact: Copper Alloy
Insulation Outside Diameter: Thin wall

Circuits	Shell Size	Order No.	Terminal Insert Configuration	Wire Range	Lead-free
14	18	84507-0012	Socket insert	14 to 18	Yes

XRC™ Extra Rugged Circular Sealed Connectors Receptacle Housing

84502



Features and Benefits

- Environmentally sealed to IP67 standard and protects against the ingress of dust, water and other contaminants to maintain the integrity of the mated pair
- Seal retainer lip is compatible with backshell and overmolding applications
- Bayonet style latch provides quick and easy connections for reduced installation and service time as well as ensures proper depth when mated
- Simple crimp-and-poke technology does not require terminal alignment when installing crimped wires
- Tactile and audible mating feedback facilitates reliable mating

Reference Information

Packaging: Tray
Mates With: 84507 plug
Use With: 84590 crimp terminals,
84502-0004 panel mount hex nut (optional) and
84509-0002 circuit plug
Designed In: Inches

Electrical

Current: 18 AWG—10.0A max.
16 and 14 AWG—13.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1600V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 53.4N (12 lb)
Mating Force: 133.5N (30 lb) max.
Unmating Force: 26.7N (6 lb) min.
Durability: 100 cycles

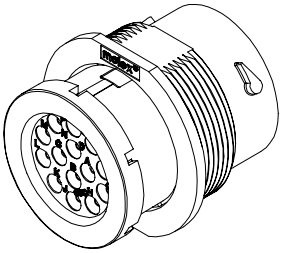
Physical

Housing: Glass-filled PBT
Seals: Silicone rubber
Contact: Copper Alloy
Insulation Outside Diameter: Thin wall

Circuits	Shell Size	Order No.	Terminal Insert Configuration	Wire Range	Lead-free
14	18	84502-0008	Pin insert	14 to 18	Yes

XRC™ Extra Rugged Circular Sealed Connectors Receptacle Housing

84508



Features and Benefits

- Environmentally sealed to IP67 standard and protects against the ingress of dust, water and other contaminants to maintain the integrity of the mated pair
- Seal retainer lip is compatible with backshell and overmolding applications
- Bayonet style latch provides quick and easy connections for reduced installation and service time as well as ensures proper depth when mated
- Simple crimp-and-poke technology does not require terminal alignment when installing crimped wires
- Tactile and audible mating feedback facilitates reliable mating

Reference Information

Packaging: Tray
Mates With: 84501 plug
Use With: 84590 crimp terminals,
84502-0004 panel mount hex nut (optional) and
84509-0002 circuit plug
Designed In: Inches

Electrical

Current: 18 AWG—10.0A max.
16 and 14 AWG—13.0A max.
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 1600V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 53.4N (12 lb)
Mating Force: 133.5N (30 lb) max.
Unmating Force: 26.7N (6 lb) min.
Durability: 100 cycles

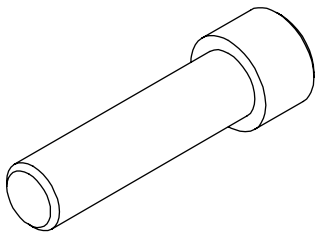
Physical

Housing: Glass-filled PBT
Seals: Silicone rubber
Contact: Copper Alloy
Insulation Outside Diameter: Thin wall

Circuits	Shell Size	Order No.	Terminal Insert Configuration	Wire Range	Lead-free
14	18	84508-0001	Socket insert	14 to 18	Yes

XRC™ Extra Rugged Circular Sealed Connectors Circuit Plug

84509



Features and Benefits

- Optional circuit plug supports the ability to implement sealed blank cavities in both plug and receptacle housings
- Provides the ability to plan for possible future circuit additions while maintaining the sealing integrity of the mated pair

Reference Information

Packaging: Box
Use With: 84501 and 84507 plug housings
84502 and 84508 receptacle housings
Designed In: Inches

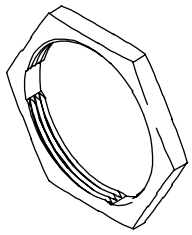
Physical

Material: PBT, UL 94V-0

Order No.	Contact Size	Color	Lead-free
84509-0002	12 and 16	Natural/White	Yes

XRC™ Extra Rugged Circular Sealed Connectors Panel Mount Hex Nut

84502



Reference Information

Packaging: Box
Use with: Molex shell size 18 receptacle housings
Designed In: Inches

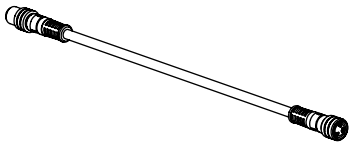
Physical

Material: PBT, UL 94V-0

Order No.	Color	Lead-free
84502-0004	Black	Yes

Brad® Nano-Change® (M8) Cordset

120027/120028/120086/120087
Single and Double-Ended



Features and Benefits
- M8 connector per IEC 61072-2-104
- #24 AWG yellow PVC cable
- Threaded coupling to withstand harsh industrial environments

Reference Information
UL File No.: E152210

Electrical
Voltage: 60V AC/75V DC
Current: 3P—4.0A
4P—4.0A
5P—3.0A

Mechanical
Connector Face: PBT
Molded Body: TPE
O-Ring: Viton
Coupling Nut: Nickel-plated Brass
Cable: Yellow, PVC Cable Jacket, #24 AWG over 19 by #36 Copper stranding, UL style 2661
Outside Diameter:
3P—0.17" (4.3mm)
4P—0.18" (4.6mm)
5P—0.20" (5.1mm)

Environmental
Protection: IP67

Single-Ended

Poles	Cable Length (m)	PVC Cable				PUR* Cable			
		Male		Female		Male		Female	
		Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
3	2.0	403006A10M020	120086-0132	403000A10M020	120086-0102	403006P03M020	120027-0911	403000P03M020	120027-0003
	4.0	403006A10M040	120086-0133	403000A10M040	120086-0106	403006P03M040	120027-0453	403000P03M040	120027-1130
	5.0	403006A10M050	120086-0134	403000A10M050	120086-0107	403006P03M050	120086-0474	403000P03M050	120086-0466
	6.0	403006A10M060	120086-0575	403000A10M060	120086-0108	403006P03M060	120086-0583	403000P03M060	120086-0589
	10.0	403006A10M100	120086-0135	403000A10M100	120086-0111	403006P03M100	120027-0933	403000P03M100	120027-0005
4	2.0	404006A10M020	120086-0183	404000A10M020	120086-0144	404006P03M020	120027-0960	404000P03M020	120027-0014
	4.0	404006A10M040	120086-0184	404000A10M040	120086-0146	404006P03M040	120086-0584	404000P03M040	120086-0590
	5.0	404006A10M050	120086-0185	404000A10M050	120086-0147	404006P03M050	120027-1017	404000P03M050	120027-0015
	6.0	404006A10M060	120086-0576	404000A10M060	120086-0148	404006P03M060	120086-0585	404000P03M060	120086-0591
	10.0	404006A10M100	120086-0577	404000A10M100	120086-0155	404006P03M100	120027-1137	404000P03M100	120027-0016
5	2.0	405006A10M020	120086-0206	405000A10M020	120086-0191	405006P02M020	120027-0752	405000P02M020	120027-0709
	4.0	405006A10M040	120086-0207	405000A10M040	120086-0192	405006P02M040	120086-0586	405000P02M040	120086-0592
	5.0	405006A10M050	120086-0208	405000A10M050	120086-0193	405006P02M050	120027-0657	405000P02M050	120086-0475
	6.0	405006A10M060	120086-0541	405000A10M060	120086-0578	405006P02M060	120086-0587	405000P02M060	120086-0593
	10.0	405006A10M100	120086-0579	405000A10M100	120086-0194	405006P02M100	120086-0588	405000P02M100	120086-0594

* Preferred Version in Europe

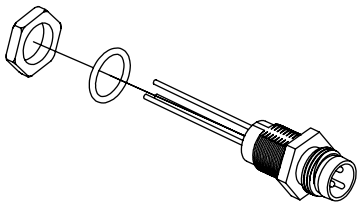
Double-Ended

Poles	Cable Length (m)	PVC Cable		PUR* Cable	
		Male Straight/Female Straight Extension			
		Old Part No.	Order No.	Old Part No.	Order No.
3	0.6	443030A10M006	120087-0071	443030P03M006	120028-0681
	1.0	443030A10M010	120087-0074	443030P03M010	120087-0515
	2.0	443030A10M020	120087-0078	443030P03M020	120028-0682
	3.0	443030A10M030	120087-0079	443030P03M030	120028-0947
	4.0	443030A10M040	120087-0080	443030P03M040	120028-1269
	5.0	443030A10M050	120087-0081	443030P03M050	120028-0870
4	0.6	444030A10M006	120087-0092	444030P03M006	120028-0473
	1.0	444030A10M010	120087-0093	444030P03M010	120028-0365
	2.0	444030A10M020	120087-0095	444030P03M020	120028-0696
	3.0	444030A10M030	120087-0096	444030P03M030	120028-0697
	4.0	444030A10M040	120087-0097	444030P03M040	120087-0686
	5.0	444030A10M050	120087-0098	444030P03M050	120028-0970
5	0.6	445030A10M006	120087-0677	445030P02M006	120087-0687
	1.0	445030A10M010	120087-0112	445030P02M010	120028-1309
	2.0	445030A10M020	120087-0113	445030P02M020	120087-8035
	3.0	445030A10M030	120087-0678	445030P02M030	120087-0688
	4.0	445030A10M040	120087-0114	445030P02M040	120087-8036
	5.0	445030A10M050	120087-0041	445030P02M050	120028-1310

* Preferred Version in Europe

Brad® Nano-Change® (M8) Receptacle

120090



Features and Benefits
- M8 connector per IEC 61072-2-104
- Nickel-plated Brass body
- IP67 rating on threaded connection

Reference Information
UL File No.: E152210

Electrical
Voltage: 60V AC/75V DC
Current: 3P—4.0A
4P—4.0A
5P—3.0A

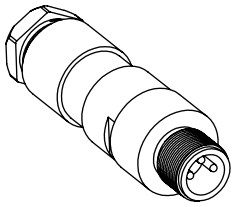
Mechanical
Connector Face: PBT
Shell: Nickel-plated Brass
O-Ring: Viton
Wire: PVC; #24 AWG (19 by #36)

Environmental
Protection: Coupler—NEMA IP67
Snap—NEMA 4, IP65

Poles	Old Part No.	Order No.	Gender
3	4R3P00A27C300	120090-0016	Female
	4R3P06A27C300	120090-0020	Male
4	4R4P00A27C300	120090-0029	Female
	4R4P06A27C300	120090-0032	Male
5	4R5P00A27C300	120090-0037	Female
	4R5P06A27C300	120090-0038	Male

Brad® Nano-Change® (M8) Attachable Connector

120091



Features and Benefits
- M8 connector per IEC 61076-2-104
- Allows easy field conversion to threaded connection quick-disconnect
- Solder connections for reliability in vibration applications
- Male and female in both straight and 90˚ versions

Electrical
Voltage: 60V AC/75V DC
Current: 4.0A

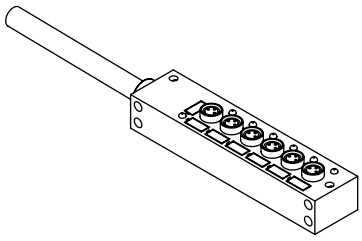
Mechanical
Connector Face: PA
Body: PA
Coupling Nut: Nickel-plated Brass
Termination: Solder lugs; accepts conductor to #20 AWG

Environmental
Protection: IP67

Poles	Old Part No.	Order No.	Orientation	Gender
3	N03FA03124	120091-0001	Straight	Female
	N03FA04124	120091-0003	90˚	Female
	N03MA03124	120091-0004	Straight	Male
	N03MA04124	120091-0006	90˚	Male
4	N04FA03124	120091-0007	Straight	Female
	N04FA04124	120091-0009	90˚	Female
	N04MA03124	120091-0010	Straight	Male
	N04MA04124	120091-0012	90˚	Male

Brad® Nano-Change® (M8) Distribution Box

120113



Features and Benefits

- M8 connector per IEC 61072-2-104
- Connectorized Home Run cable connector version for maximum flexibility
- Flexibility with 4, 8, and 10 ports
- PNP and NPN versions for use with a variety of DC sensor

Mechanical

Insert: Thermoplastic polyester
Housing: PBT
Receptacle Housing: Nickel-plated Brass
ID Label: ABS
O-Ring: Viton
Home Run Connector Cabling: M16 14 pole connector, metal shell
Cable Jacket: Black PUR/PVC composite, black PUR
Diameter: PUR—0.28" (7mm)

	4 Port	6 Port	8 Port	10 Port
V(+) and V(-):	2 x 0.75mm²	2 x 0.75mm²	2 x 0.75mm²	2 x 0.75mm²
Control:	4 x 0.34mm²	6 x 0.34mm²	8 x 0.34mm²	Outer
Stranding				
V(+) and V(-):	95 x 0.1mm	85 x 0.1mm	95 x 0.1mm	95 x 0.1mm
Control	42 x 0.1mm	42 x 0.1mm	42 x 0.1mm	42 x 0.1mm

Electrical

Voltage: 10 to 30V DC
Current: 2.0A max. per port; 6A total per MPIS unit
Indicating Lights: Green LED—power; Yellow LED—function
Average LED Life: 100,000 hours

Environmental

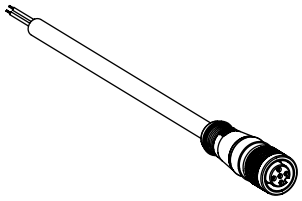
Protection: IP67

Ports	Old Part No.	Order No.	Description
4	BNY401P-FBC	120113-0023	Top Mount, Connector with Integral Home Run Connector
8	BNY801P-FBC	120113-0029	
10	BNYA01P-FBC	120113-0020	
4	BNY401P-FBP-05	120113-0025	Top Mount with Top Cable Entry, Molded Home Run Cable
8	BNY801P-FBP-05	120113-0032	
10	BNYA01P-FBP-05	120113-0022	
4	BEY401P-FBP-05	120113-0006	
6	BEY601P-FBP-05	120113-0011	
8	BEY801P-FBP-05	120113-0014	
10	BEYA01P-FBP-05	120113-0002	
4	BEY401P-FBP-10	120113-0007	

Brad® Micro-Change® (M12) Cordset

120006/120065

Single Keyway Single-Ended



Features and Benefits

- Single key M12 connector per IEC 61076-2-101
- 22 AWG yellow PVC, PUR thermoplastic elastomer (TPE) cables
- DC color code
- Highly reliable low-resistance contact design with Gold/Palladium Nickel plating

Reference Information

UL File No.: E152210
CSA File No.: LR6837

Electrical

Voltage: 250V AC/DC
Current: 4.0A

Mechanical

Connector Face: PUR
Molded Body: PUR
O-Ring: Nitrile rubber
Coupling Nut: Nickel plated brass
Cable:
PVC—Yellow 22 AWG PVC jacket and PVC conductor insulation over 26 x 36 Copper strand, 300V, UL Style AWM 2661, CSA AWM I/IT A/B
TPE—Yellow 22 AWG TPE jacket and PVC conductor insulation over 19 x 34 copper stranding, 300V, High Flex Cable(>10 millionbind cycles), UL ITC/PLTC 105˚C, CSA AWM I/IT AB 90˚C 300V FT4
Cable Outside Diameter: 4P—0.20" (5.10mm)
5P—0.23" (5.80mm)

Environmental

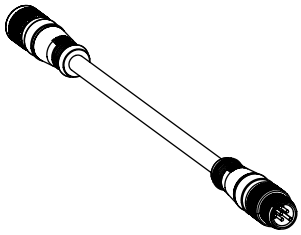
Protection: IP67

Cable Type	Poles	Length (m)	Straight				Right Angle			
			Male		Female		Male		Female	
			Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
TPE	4	2.0	804006K05M020	120065-1129	804000K05M020	120065-1121	804007K05M020	120065-1691	804001K05M020	120065-1639
		4.0	804006K05M040	120065-1130	804000K05M040	120065-1123	804007K05M040	120065-1692	804001K05M040	120065-1641
		5.0	804006K05M050	120065-1131	804000K05M050	120065-1124	804007K05M050	120065-1693	804001K05M050	120065-1642
		6.0	804006K05M060	120065-1132	804000K05M060	120065-1125	804007K05M060	120065-1694	804001K05M060	120065-1643
		10.0	804006K05M100	120065-1133	804000K05M100	120065-1126	804007K05M100	120065-1695	804001K05M100	120065-1644
PVC		2.0	804006A09M020	120065-0414	804000A09M020	120065-0255	804007A09M020	1200651662	804001A09M020	120065-1551
		4.0	804006A09M040	120065-0418	804000A09M040	120065-0261	804007A09M040	120065-1665	804001A09M040	120065-1555
		5.0	804006A09M050	120065-0419	804000A09M050	120065-0265	804007A09M050	120065-1666	804001A09M050	120065-1558
		6.0	804006A09M060	120065-0421	804000A09M060	120065-0268	804007A09M060	120065-1668	804001A09M060	120065-1562
		10.0	804006A09M100	120065-0425	804000A09M100	120065-0277	804007A09M100	120065-1669	804001A09M100	120065-1567
PUR*		2.0	804006P03M020	120006-0570	804000P03M020	120006-0018	804007P03M020	120006-0592	804001P03M020	120006-0024
		4.0	804006P03M040	120065-2141	804000P03M040	120065-2143	804007P03M040	120065-2145	804001P03M040	120065-2147
		5.0	804006P03M050	120006-0047	804000P03M050	120006-0019	804007P03M050	120006-0594	804001P03M050	120006-0025
		6.0	804006P03M060	120065-2142	804000P03M060	120065-2144	804007P03M060	120065-2146	804001P03M060	120065-8206
		10.0	804006P03M100	120006-0572	804000P03M100	120065-1782	804007P03M100	120006-0595	804001P03M100	120065-1787
TPE	5	2.0	805006K03M020	120065-1374	805000K03M020	120065-1367	805007K03M020	120065-2159	805001K03M020	120065-1720
		4.0	805006K03M040	120065-2150	805000K03M040	120065-1369	805007K03M040	120065-2160	805001K03M040	120065-1721
		5.0	805006K03M050	120065-2151	805000K03M050	120065-1370	805007K03M050	120065-2161	805001K03M050	120065-1722
		6.0	805006K03M060	120065-2152	805000K03M060	120065-1371	805007K03M060	120065-2162	805001K03M060	120065-1723
		10.0	805006K03M100	120065-2153	805000K03M100	120065-1373	805007K03M100	120065-2163	805001K03M100	120065-2155
PVC		2.0	805006A09M020	120065-0523	805000A09M020	120065-0471	805007A09M020	120065-1724	805001A09M020	120065-1697
		4.0	805006A09M040	120065-0526	805000A09M040	120065-0476	805007A09M040	120065-1726	805001A09M040	120065-1700
		5.0	805006A09M050	120065-0528	805000A09M050	120065-0479	805007A09M050	120065-1727	805001A09M050	120065-1701
		6.0	805006A09M060	120065-0531	805000A09M060	120065-0483	805007A09M060	120065-1728	805001A09M060	120065-1703
		10.0	805006A09M100	120065-0533	805000A09M100	120065-0487	805007A09M100	120065-2123	805001A09M100	120065-1706
PUR*		2.0	805006P03M020	120006-0680	805000P03M020	120006-0647	805007P03M020	120006-0697	805001P03M020	120006-0663
		4.0	805006P03M040	120065-2157	805000P03M040	120065-8020	805007P03M040	120006-0699	805001P03M040	120065-8184
		5.0	805006P03M050	120006-0682	805000P03M050	120065-1792	805007P03M050	120065-8186	805001P03M050	120065-1793
		6.0	805006P03M060	120006-2082	805000P03M060	120065-2154	805007P03M060	120065-2149	805001P03M060	120065-2156
		10.0	805006P03M100	120065-2158	805000P03M100	120006-0649	805007P03M100	120065-5006	805001P03M100	120006-0664

*Preferred Version in Europe

Brad® Micro-Change® (M12) Cordset

120066
Double-Ended Single Keyway



Features and Benefits
- Single key M12 connector per IEC 61076-2-101
- 22 AWG yellow PVC and thermoplastic elastomer (TPE) cables
- DC color code
- Highly reliable low-resistance contact design with Gold/Palladium Nickel plating

Reference Information
UL File No.: E152210
CSA File No.: LR6837

Electrical
Voltage: 250V AC/DC
Current: 4.0A

Mechanical
Connector Face: PUR
Molded Body: PUR
O-Ring: Nitrile rubber
Coupling Nut: Nickel plated brass
Cable:
PVC—Yellow 22 AWG PVC jacket and PVC conductor insulation over 26 x 36 Copper strand, 300V, UL Style AWM 2661, CSA AWM I/IT A/B
TPE—Yellow 22 AWG TPE jacket and PVC conductor insulation over 19 x 34 copper stranding, 300V, High Flex Cable(>10 millionbind cycles), UL ITC/PLTC 105˚C, CSA AWM I/IT AB 90˚C 300V FT4
Cable Outside Diameter: 4P—0.20" (5.10mm)
5P—0.23" (5.80mm)

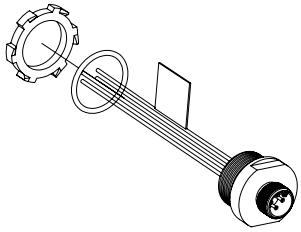
Environmental
Protection: IP67

Cable Type	Poles	Length (m)	Female/Male Extension	
			Old Part No.	Order No.
PVC	4	0.6	884030A09M006	120066-0262
		1.0	884030A09M010	120066-0266
		2.0	884030A09M020	120066-0271
		4.0	884030A09M040	120066-0279
		5.0	884030A09M050	120066-0284
TPE	4	0.6	884030K05M006	120066-0686
		1.0	884030K05M010	120066-0687
		2.0	884030K05M020	120066-0689
		3.0	884030K05M030	120066-0690
		4.0	884030K05M040	120066-0691
		5.0	884030K05M050	120066-0692
	5	0.6	885030K03M006	120066-1033
		1.0	885030K03M010	120066-1034
		2.0	885030K03M020	120066-1035
		4.0	885030K03M040	120066-1037
		5.0	885030K03M050	120066-1038
PUR*	4	0.6	884030F03M006	120007-0487
		1.0	884030F03M010	120007-0488
		2.0	884030F03M020	120007-0489
		4.0	884030F03M040	120007-2803
		5.0	884030F03M050	120007-0490

*Preferred Version in Europe

Brad® Micro-Change® (M12) Receptacle

120070
Single Keyway



Features and Benefits
- Single key M12 connector per IEC 61076-2-101
- 22 AWG PVC 12 inch leads—DC color code, epoxy potted
- Black anodized aluminum shell
- Used in control panels, junction boxes and sensors

Reference Information
UL File No.: 3P and 4P E152210, 5P UL recognized
CSA File No.: LR6837

Electrical
Voltage: 250V AC/DC
Current: 4.0A

Mechanical
Shell: Black anodized aluminum
Insert: Nylon 6/6
Conductors: 22 AWG with PVC insulation over 26 by #36 Copper stranding, 300V, UL Style 1061, CSA AWM SR
O-Ring: Nitrile Rubber

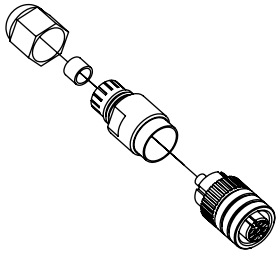
Environmental
Protection: IP67

Poles	Male		Mounting Thread	Female		Mounting Thread
	Old Part No.	Order No.		Old Part No.	Order No.	
4	8R4006A18A120	120070-0184	1/2" - 14NPT	8R4A00A18A120	120070-0114	1/4" - 18NPT
5	8R5006A18A120	120070-0252		8R5A00A18A120	120070-0201	

*Note: Other mounting threads available, contact Molex.

Brad® Micro-Change® (M12) Field Attachables

120071
Single Keyway



Features and Benefits
- Single key M12 connector per IEC 61076-2-101
- Screw terminal connection accepts up to 18 AWG conductors
- Easy field installation of quick-disconnect design
- For use with all standard single keyway M12 receptacles and cordsets

Reference Information
CSA File No.: LR6837

Electrical
Voltage: 4P—250V AC, 300V DC
5P—30V AC, 36V DC
Current: 4.0A

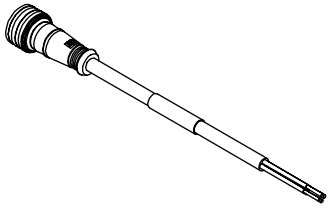
Mechanical
Connector Face: Polyamide
Molded Body: Polyamide
Contact: Silver plated Brass
Coupling Nut: Nickel plated Brass
Grommet: Nitrile rubber
Maximum Conductor Size: 18 AWG

Environmental
Protection: IP67

Poles	Male		Female		Orientation	Description
	Old Part No.	Order No.	Old Part No.	Order No.		
4	8A4006-31	120071-0038	8A4000-31	120071-0035	Straight	With PG 7 Cable Fitting (0.13 - 0.26" O.D. [3.3-6.6mm] cable)
	8A4007-31	120071-0040	8A4001-31	120071-0037	90 degree	
5	8A5006-31	120071-0045	8A5000-31	120071-0041	Straight	
	8A5007-31	120071-0049	8A5001-31	120071-0044	90 degree	
4	8A4006-32	120071-0039	8A4000-32	120071-0036	Straight	With PG 9 Cable Fitting (0.16 - 0.32" O.D. [4.1-8.1mm] cable)
5	8A5006-32	120071-0047	8A5000-32	120071-0043		

Brad® Ultra-Lock® (M12) Cordset

120079
Single-Ended



Features and Benefits

- Simply push down to connect and pull up to disconnect
- Surpasses the performance and reliability of traditional threaded connectors to deliver increased productivity and cost savings
- Ultra-lock connectors incorporate a unique radial seal and mechanical locking design that deliver unsurpassed performance

Electrical

Voltage: 3P and 4P—250V
5P—60V
Insulation Resistance: >10^9 ohms
Rated Current T Amb. 40C: 4.0A
Contact Resistance: <5 milliohms

Mechanical

Connector Face: PUR
Connector Body: PUR
Locking Mechanism: Nickel-plated Brass
Contact: Male—Brass
Female—Phosphor Bronze
Contact Plating: Gold over Nickel
O-Ring: Viton

Environmental

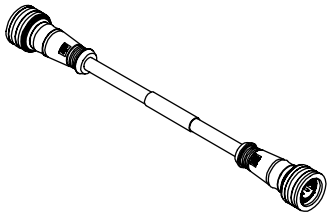
Pollution Degree (IEC 60 664-1): 3
Protection: IP67/69K

Poles	Cable Type	Length (m)	Male Straight		Female Straight		Female Right Angle	
			Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
4	PVC	2.0					W04001A09M020	120079-0232
		4.0					W04001A09M040	120079-0233
		5.0					W04001A09M050	120079-0234
		6.0					W04001A09M060	120079-0235
		10.0					W04001A09M100	120079-0195
	TPE	2.0	W04006K05M020	120079-0156	W04000K05M020	120079-0149	W04001K05M020	120079-0221
		4.0	W04006K05M040	120079-0143	W04000K05M040	120079-0148	W04001K05M040	120079-0183
		5.0	W04006K05M050	120079-0142	W04000K05M050	120079-0147	W04001K05M050	120079-0184
		6.0	W04006K05M060	120079-0141	W04000K05M060	120079-0134	W04001K05M060	120079-0185
		10.0	W04006K05M100	120079-0140	W04000K05M100	120079-0145	W04001K05M100	120079-0186
	PUR*	2.0	W04006P03M020	120079-8006	W04000P03M020	120079-8012	W04001P03M020	120079-8013
		4.0	W04006P03M040	120079-5064	W04000P03M040	120079-5068	W04001P03M040	120079-5071
		5.0	W04006P03M050	120079-5065	W04000P03M050	120079-5069	W04001P03M050	120079-8007
		6.0	W04006P03M060	120079-5066	W04000P03M060	120079-5070	W04001P03M060	120079-5073
		10.0	W04006P03M100	120079-8011	W04000P03M100	120079-8010	W04001P03M100	120079-5072
5	PVC	2.0	W05006A09M020	120079-0092	W05000A09M020	120079-0109	W05001A09M020	120079-0223
		4.0	W05006A09M040	120079-0091	W05000A09M040	120079-0096	W05001A09M040	120079-0202
		5.0	W05006A09M050	120079-0090	W05000A09M050	120079-0095	W05001A09M050	120079-0203
		6.0	W05006A09M060	120079-0089	W05000A09M060	120079-0094	W05001A09M060	120079-0204
		10.0	W05006A09M100	120079-0088	W05000A09M100	120079-0093	W05001A09M100	120079-0205
	PUR*	2.0	W05006P03M020	120079-5055			W05001P03M020	120079-5088
		4.0	W05006P03M040	120079-5079			W05001P03M040	120079-5089
		5.0	W05006P03M050	120079-5080			W05001P03M050	120079-5090
		6.0	W05006P03M060	120079-5081			W05001P03M060	120079-5091
		10.0	W05006P03M100	120079-5082			W05001P03M100	120079-5092

*Preferred Version in Europe

Brad® Ultra-Lock® (M12) Cordset

120080
Doubled-Ended



Features and Benefits
- Simply push down to connect and pull up to disconnect
- Surpasses the performance and reliability of traditional threaded connectors to deliver increased productivity and cost savings
- Ultra-lock connectors incorporate a unique radial seal and mechanical locking design that deliver unsurpassed performance

Electrical
Voltage: 4P—250V
5P—60V
Insulation Resistance: >10⁹ ohms
Rated Current T Amb.: 4.0A
Contact Resistance: <5 milliohms

Mechanical
Connector Face: PUR
Contact Carrier: PUR
Locking Mechanism: Nickel-plated Brass
Contact: Male—Brass
Female—Phosphor Bronze
Contact Plating: Gold over Nickel
O-Ring: Viton
Durability: 30,000 mate/demate

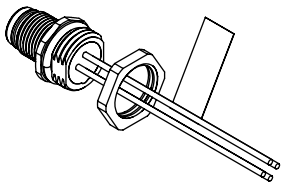
Environmental
Pollution Degree (IEC 60 664-1): 3
Protection: IP67/69K

Poles	Cable Type	Length (m)	Ultra-Lock Male/Threaded Female Extension		Ultra-Lock Male/ Ultra-Lock Female Extension	
			Old Material No.	Order No.	Old Material No.	Order No.
4	PVC	0.6	8W4030A09M006	120080-0042	WW4030A09M006	120080-0009
		1.0	8W4030A09M010	120080-0043	WW4030A09M010	120080-0403
		2.0	8W4030A09M020	120080-0044	WW4030A09M020	120080-0331
		3.0	8W4030A09M030	120080-0449	WW4030A09M030	120080-0450
		4.0	8W4030A09M040	120080-0045	WW4030A09M040	120080-0332
		5.0	8W4030A09M050	120080-0046	WW4030A09M050	120080-0333
	TPE	0.6	8W4030K05M006	120080-0455	WW4030K05M006	120080-5054
		1.0	8W4030K05M010	120080-0073	WW4030K05M010	120080-0417
		2.0	8W4030K05M020	120080-0074	WW4030K05M020	120080-0406
		3.0	8W4030K05M030	120080-0442	WW4030K05M030	120080-5055
		4.0	8W4030K05M040	120080-0075	WW4030K05M040	120080-0405
		5.0	8W4030K05M050	120080-0076	WW4030K05M050	120080-0404
	PUR*	0.6	8W4030P03M006	120080-5028	WW4030P03M006	120080-5044
		1.0	8W4030P03M010	120080-5029	WW4030P03M010	120080-5045
		2.0	8W4030P03M020	120080-5030	WW4030P03M020	120080-5018
		3.0	8W4030P03M030	120080-8004	WW4030P03M030	120080-5046
		4.0	8W4030P03M040	120080-5031	WW4030P03M040	120080-5047
		5.0	8W4030P03M050	120080-8005	WW4030P03M050	120080-5048
5	PVC	0.6	8W5030A09M006	120080-0451	WW5030A09M006	120080-0453
		1.0	8W5030A09M010	120080-0059	WW5030A09M010	120080-0325
		2.0	8W5030A09M020	120080-0060	WW5030A09M020	120080-0313
		3.0	8W5030A09M030	120080-0452	WW5030A09M030	120080-0454
		4.0	8W5030A09M040	120080-0061	WW5030A09M040	120080-0312
		5.0	8W5030A09M050	120080-0062	WW5030A09M050	120080-0311
	PUR*	0.6	8W5030P03M006	120080-5032	WW5030P03M006	120080-5049
		1.0	8W5030P03M010	120080-5033	WW5030P03M010	120080-5050
		2.0	8W5030P03M020	120080-5034	WW5030P03M020	120080-5051
		3.0	8W5030P03M030	120080-5035	WW5030P03M030	120080-5052
		4.0	8W5030P03M040	120080-5036	WW5030P03M040	120080-5053
		5.0	8W5030P03M050	120080-5037	WW5030P03M050	120080-5019

*Preferred Version in Europe

Brad® Ultra-Lock® (M12) Receptacle

120025/120084
Single Keyway



Features and Benefits
- Mating receptacles for Ultra-Lock® cordsets
- 0.34mm² (22 AWG) PVC 30cm wire leads, DC color code
- Fully potted to maintain water tight rating of enclosure
- Used in control panels, junction boxes and sensors
- Offered with wire leads or PCB pins for easy incorporation into devices

Electrical
Voltage: 4P—250V AC/DC
5P—60V AC/DC
Current: 4.0A

Mechanical
Shell: Nickel-plated Brass
Insert: PUR
Conductors: 0.34mm² (22 AWG) PVC insulation
O-Ring: Viton

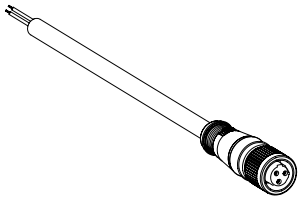
Environmental
Protection: IP67/IP69K

Poles	Mounting Thread	Front Panel Mount				Rear Panel Mount			
		Male		Female		Male		Female	
		Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
4	M16 x 1	WR4U26E03C300	120025-0005	WR4U20E03C300	120025-0006	WR4U46000	120084-0028	WR4U40000	120084-0029
5		WR5U26E03C300	120025-0007	WR5U20E03C300	120025-0008	WR5U46000	120084-0031	WR5U40000	120084-0030

Brad® Micro-Change® (½"-20 UNC) Cordset

120072

Single-Ended Dual Keyway



Features and Benefits

- Dual key connector with ½"-20 UNF coupler
- 22 AWG yellow PVC cable with metallic braid—auto color code
- Low-resistance contact design with Gold/Palladium Nickel plating

Reference Information

UL File No.: E152210
CSA File No.: LR6837

Electrical

Voltage: 250V AC/DC
Current: 4.0A

Mechanical

Connector Face: Nylon 6/6
Molded Body: PVC
O-Ring: Nitrile rubber
Coupling Nut: Zinc diecast with black epoxy coat
Cable: Yellow 22 AWG PVC jacket 70% metallic braid and PVC conductor insulation over 26 by #36 Copper stranding, 300V, UL Style 2661, CSA AWM I/II A/B
Outside Diameter (22 AWG with 70% Braid):
3P—0.23" (5.80mm)
4P—0.25" (6.40mm)
5P—0.26" (6.60mm)

Environmental

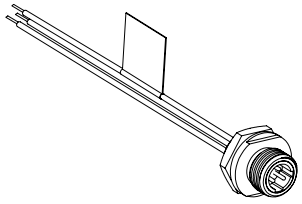
Protection: IP67

Poles	Length	Male Straight		Female Straight	
		Old Part No.	Order No.	Old Part No.	Order No.
3	6.0'	703006D02F060	120072-0302	703000D02F060	120072-0171
	12.0'	703006D02F120	120072-0305	703000D02F120	120072-0178
	20.0'	703006D02F200	120072-0308	703000D02F200	120072-0185
4	6.0'	704006D02F060	120072-0445	704000D02F060	120072-0356
	12.0'	704006D02F120	120072-0447	704000D02F120	120072-0359
	20.0'	704006D02F200	120072-0450	704000D02F200	120072-0364
5	6.0'	705006D02F060	120072-0551	705000D02F060	120072-0471
	12.0'	705006D02F120	120072-0553	705000D02F120	120072-0474
	20.0'	705006D02F200	120072-0555	705000D02F200	120072-0477

Brad® Micro-Change® (½"-20 UNC) Receptacle

120074

Dual Keyway



Features and Benefits

- Dual keyway connector with ½"-20 UNC coupler
- 22 AWG PVC 12 inch leads—auto color code, epoxy potted
- Gray anodized aluminum shell
- Used in control panels, junction boxes and sensors

Reference Information

UL File No.: E152210
CSA File No.: LR6837

Electrical

Voltage: 250V AC/DC
Current: 4.0A

Mechanical

Shell: Gray anodized aluminum
Insert: Nylon 6/6
O-Ring: Nitrile Rubber
Conductors: 22 AWG with PVC insulation over 26 by #36 Copper stranding, 300V, UL Style 1061, CSA AWM SR

Environmental

Protection: IP67

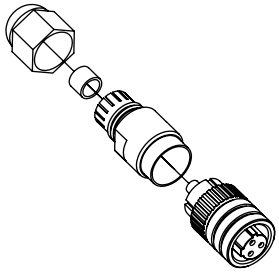
Poles	Male		Female		Mounting Thread
	Old Part No.	Order No.	Old Part No.	Order No.	
3	7R3A06A19A120	120074-0079	7R3A00A19A120	120074-0058	1/4" - NPT
4	7R4A06A19A120	120074-0140	7R4A00A19A120	120074-0122	
5	7R5A06A19A120	120074-0190	7R5A00A19A120	120074-0178	

*Note: Other mounting threads available, contact Molex.

Brad® Micro-Change® (½"-20 UNF) Field Attachables

120075

Dual Keyway



Features and Benefits

- Dual keyway connector with ½"-20 UNC coupler
- Screw terminal connection accepts up to 18 AWG conductors
- Easy field installation of quick-disconnect design
- For use with all standard dual keyway ½"-20 UNF receptacles and cordsets

Electrical

Voltage: 250V AC/DC
Current: 3P—4.0A

Mechanical

Connector Face: Nylon 6/6
Molded Body: Nylon 6/6
Contact: Gold plated Copper alloy
Coupling Nut: Nickel plated Brass
Grommet: Nitrile rubber
Maximum Conductor Size: 18 AWG

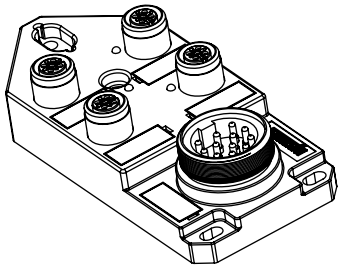
Environmental

Protection: IP67

Poles	Male		Female		Orientation	Description
	Old Part No.	Order No.	Old Part No.	Order No.		
3	7A3006-31	120075-0017	7A3000-31	120075-0014	Straight	With PG 7 Cable Fitting (0.13 - 0.26" O.D. [3.3-6.6mm] cable)
	7A3007-31	120075-0019	7A3001-31	120075-0016	90 degree	
	7A3006-32	120075-0018	7A3000-32	120075-0015	Straight	With PG 9 Cable Fitting (0.16 - 0.32" O.D. [4.1-8.1mm] cable)

Brad® Micro-Change® (M12) Ultra-Lock® Sealed Distribution Box

120119/130007/130008



Features and Benefits

- Available in a variety of formats for backward compatibility with different connector styles
- Accepts Ultra-Lock and threaded M12 cordsets

Electrical

Voltage (IEC 60 664-1): 10-30V DC
Insulation Resistance (IEC 60 512-2): $>10^9$ ohms
Rated Current T Amb. 40C (IEC 60 512-3): 2 A per I/O
Current: 12.0A
Contact Resistance (IEC 60 512-2): <5 milliohms

Mechanical

Body: PBT
Contact Carrier: PBT
Shell Material: Nickel over Brass
Contact: Phosphor Bronze
Contact Plating: Gold over Nickel
Cable Jacket: PUR
O-Ring: Viton

Environmental

Pollution Degree (IEC 60 664-1): 3
Protection: IP67/69K

Single I/O Per Port with/Integral Mini-Change Connector		
Old Part No.	Order No.	Description
BKY401P-FBB	120119-0002	4-Port, 5-Pole/ 4 wire-single 1/0 per port
BKY601P-FBB	120119-0010	6-Port, 5-Pole/ 4 wire-single 1/0 per port
BKY801P-FBB	120119-0017	8-Port, 5-Pole/ 4 wire-single 1/0 per port

Double I/O Per Port with/Integral Mini-Change Connector		
Old Part No.	Order No.	Description
BKY403P-FBB	120119-0005	4-Port, 5-Pole/ 5 wire-dual 1/0 per port
BKY603P-FBB	120119-0013	6-Port, 5-Pole/ 5 wire-dual 1/0 per port
BKY803P-FBB	120119-0020	8-Port, 5-Pole/ 5 wire-dual 1/0 per port

Suggested home-run cable assembly for above junction boxes

Mini-Change® 90° Female Single-Ended Home Run Cable			
Old Part No.	Order No.	Description	Length (m)
302101A04M050	130008-0279	18/3 22/8 PVC MI	5.0
302101A04M100	130008-0282	18/3 22/8	10.0

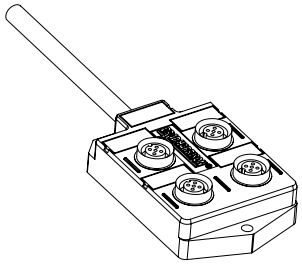
Suggested home-run cable assembly for above junction boxes

Mini-Change Female			
Old Part No.	Order No.	Description	Length (m)
208000A04M050	130007-0176	MC 8P FP 5M 8 PVC MICRO MPIS	5.0
208000A04M100	130007-0177	MC 8P FP 10M 8 PVC MICRO MPIS	10.0
301000A04M050	130008-0073	MC 10P FP 5M PVC HOME RUN	5.0
301000A04M100	130008-0075	MC 10P FP 10M PVC HOME RUN	10.0
301001A04M050	130008-0489	MC 10P FP 90D 5M PVC HOME RUN	5.0
301001A04M100	130008-0112	MC 10P FP 90D 10M 22/10 PVC	10.0

Brad® Micro-Change® (M12) Sealed Distribution Box

120114

Top Mount, Single Keyway with Molded Home Run Cable



Features and Benefits

- Simplifies wiring installation, molded PVC home run cable
- Flexibility with 4 and 8 port configurations
- PNP and NPN versions for use in a variety of DC sensors

Reference Information

UL File No.: E46237
CSA File No.: LR6837

Electrical

Voltage: 10-30V DC
Current: 4.0A per port, 12.0A max. per unit
Indicating Lights: Green LED—power, yellow LED—function
Average LED Expectancy: 100,000 hours

Mechanical

Insert: PA
Housing: Glass-filled PBT
Receptacle Housing: Nickel-plated Brass
ID Label: ABS
Home Run Connector: Black, PUR cable jacket, (3) 16 AWG over either (4) or (8) 22 AWG and PVC conductor insulation over either 41 by #34 (16 AWG) or 26 by #36 (22 AWG) Copper stranding over 65 by #34 Copper stranding, 600 V
Outside Diameter: 0.29" (7.4mm)

Environmental

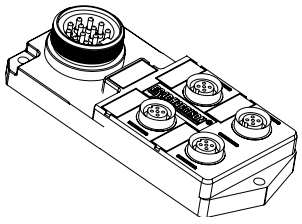
Protection: IP67

Port	Old Part No.	Order No.	Functional Wiring	Home Run Cable
4	BTY401P-FBE-05	120114-0021	PNP	5M PVC
	BTY401P-FBE-10	120114-0022		10M PVC
	BTY401P-FBP-05	120114-0024		5M PUR
	BTY405P-FBP-05	120114-0039	Dual-in PNP	5M PU
8	BTY801N-FBE-05	120114-0061	NPN	5M PVC
	BTY801P-FBE-05	120114-0068	PNP	5M PVC
	BTY801P-FBE-10	120114-0069		10M PVC
	BTY801P-FBP-05	120114-0072		5M PUR
	BTY805P-FBP-05	120114-0089	Dual-in PNP	5M PUR

Brad® Micro-Change® (M12) Sealed Distribution Box

120114

Top Mount, Single Keyway with Mini-Change® Home Run Connector



Features and Benefits

- Connectorized home run cable connector version for maximum flexibility
- Flexibility with 4 and 8 port configurations
- PNP and NPN versions for use with a variety of DC sensors

Reference Information

UL File No.: E46237
CSA File No.: LR6837

Electrical

Voltage: 10-30V DC
Current: 4.0A per port, 12.0A total per MPIS unit
Indicating Lights: Green LED—power, yellow LED—function
Average LED Expectancy: 100,000 hours

Mechanical

Insert: PA
Housing: Glass-filled PBT
Receptacle Housing: Nickel-plated Brass
ID Label: ABS

Environmental

Protection: IP67

Port	Old Part No.	Order No.	Functional Wiring
4	BTY401N-FBB	120114-0014	PNP
	BTY401P-FBB	120114-0019	
8	BTY801N-FBB	120114-0059	NPN
	BTY801P-FBB	120114-0065	

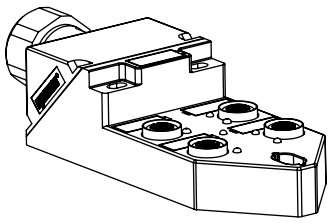
Home Run Cables

Cable Type	Length	Old Part No.	Order No.
PVC	5m	302000A01M050	130008-0187
	10m	302000A01M100	130008-0188
	3 feet	302001A01F030	130008-0211
	6 feet	302001A01F060	130008-0212

Brad® Micro-Change® (M12) Sealed Distribution Box

120114

Top Mount, Single Keyway Twin Wired with Field Attachable Home Run Cable



Port	Old Part No.	Order No.
4	BTY403P-FBA	120114-0029

Features and Benefits
- Field-attachable home run cable provides flexibility in installation
- Allows for specialty user-supplied control cable options
- User can decide home run cable lengths at last minute
- Cable can exit at either top or end of MPIS

Electrical
Voltage: 10-30V DC
Current: 2.0A max. per port, 12A max. per unit
Indicating Lights: Green LED—power, yellow LED—function
Average LED Expectancy: 100,000 hours

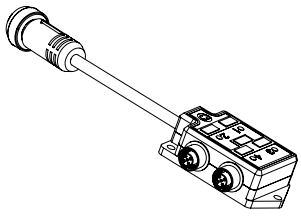
Mechanical
Insert: PBT
Housing: PBT
Receptacle Housing: Nickel-plated Brass
ID Label: PA
Home Run Connector: Screw termination; maximum wire gauge 18 AWG, control cable diameter to fit PG16 grommet 0.31-0.51" (8-14mm)

Environmental
Protection: IP67

Brad® Micro-Change® (M12) Sealed Distribution Box

120115

Side Mount, Single Keyway with 12" Mini-Change® Molded Home Run Connector



Port	Old Part No.	Order No.	Functional Wiring
4	803P402	120115-0047	PNP
6	803P602	120115-0050	
8	803P802	120115-0055	

Features and Benefits
- Molded home run connector provides flexibility
- Flexibility with 4, 6 and 8 port configurations
- PNP for use with a variety of DC sensors

Reference Information
UL File No.: E46237
CSA File No.: LR6837

Electrical
Voltage: 10-30V DC
Current: 4.0A per port, 12.0A total per MPIS unit
Indicating Lights: Green LED—power, yellow LED—function
Average LED Expectancy: 100,000 hours

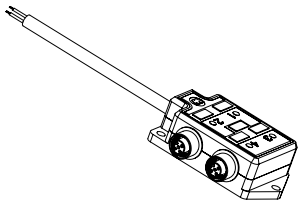
Mechanical
Insert: Nylon 6/6
Housing: Nylon 6/6
Receptacle Housing: Black E-coat
ID Label: ABS
Home Run Connector Cabling: Yellow, PVC cable jacket, (1) 18 AWG and either (5) or (7) 22 AWG control cabling and PVC conductor insulation over 41 by #34 (18 AWG) and 26 by #36 (22 AWG), UL listed style 2661, CSA certified 105° C, 300 V
Outside Diameter: 0.29" (7.4mm)

Environmental
Protection: IP67

Brad® Micro-Change® Sealed Distribution Box

120115

Side Mount, Single Keyway with Home Run Connector



Features and Benefits

- Simplifies wiring installation, integrated PVC home run cable
- Flexibility with 4, 6 and 8 port configurations
- PNP for use with a variety of DC sensors

Reference Information

UL File No.: E46237
CSA File No.: LR6837

Electrical

Voltage: 10-30V DC
Current: 4.0A max. per port, 12.0A total per MPIS unit
Indicating Lights: Green LED—power, yellow LED—function
Average LED Expectancy: 100,000 hours

Mechanical

Insert: Nylon 6/6
Housing: Nylon 6/6
Receptacle Housing: Black E-coat
ID Label: ABS
Home Run Connector Cabling: Yellow, PVC cable jacket, (1) 18 AWG and either (5) or (7) 22 AWG control cables and PVC conductor insulation over 41 by #34 (18 AWG) and 26 by #36 (22 AWG) Copper stranding, UL listed style 2661, CSA certified 105˚ C, 300 V
Outside Diameter: 0.29" (7.4mm)

Environmental

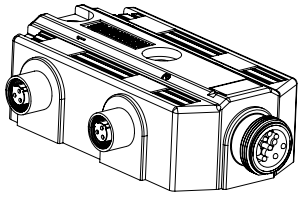
Protection: IP67

Port	Old Part No.	Order No.	Functional Wiring	Home Run Cable
4	803P401	120115-0046	PNP	5.0m - PVC #18 AWG
6	803P601	120115-0048		
8	803P801	120115-0054		

Brad® Micro-Change® (½" NPT-20) Sealed Distribution Box

120115

Side Mount, Dual Keyway Parallel Wiring with Home Run Connector



Features and Benefits

- Connectorized home run cable connection for maximum flexibility
- Flexibility with 4 and 8 port configurations
- For use with a variety of AC sensors

Reference Information

UL File No.: E46237
CSA File No.: LR6837

Electrical

Voltage: 120V AC
Current: 4.0A per port, 12.0A total per MPIS unit

Mechanical

Insert: Nylon 6/6
Housing: PBT
Receptacle Housing: Zinc die cast with black epoxy coat
ID Label: ABS
Home Run Connector: Yellow, STOOW PVC cable jacket, 16 AWG/6,8 and 10 conductor and PVC conductor insulation over 65 by #34 Copper stranding, UL listed STOOW 105˚ C, CSA certified ST 105˚ C, 600 V
Outside Diameter: 4 Port—0.54" (13.7mm)
8 Port—0.66" (16.8mm)

Environmental

Protection: IP67

Port	Old Part No.	Order No.	Home Run Connector Style
4	702P401	120115-0017	6P MR STD
8	702P801	120115-0022	10P MR STD

BradConnectivity™ mPm® Connectors

Our BradConnectivity mPm product line offers a wide range of connectors including DIN connectors, DIN splitters, molded cable connectors, suppressor adaptors, Junior Timer connectors and proximity switches for magnetic cylinders.

The mPm range of connectors is available with standard options including filament, neon or LED illuminating devices, VDR, diodes or transil diodes (with or without illuminating devices) to offer protection against overvoltage or peaks caused when switching off.

The mPm connectors are used extensively to provide electrical connections in a wide range of applications. The most common applications are in conjunction with hydraulic, pneumatic or electro magnetic devices, including solenoid valves. Other applications include pressure transducers, proximity switches, flow monitors, level sensors, limit switches, thermostats, industrial thermometers and low energy motors.

The mPm connectors are also available with approval cURus on request.

All mPm connectors offer protection from dust and water according to EN60529 (IP65 and IP67 on request) and conform to VDE 01101/89 operating voltage up to 250V group C with respect to the insulation class. The terminal block in mPm connectors is securely assembled and retained in the connector casing by way of a spring loaded lug. With this feature the terminal block remains secure in the casing reducing the danger of accidental contact or exposure to live parts even when the fixing screw is removed.

The mPm DIN connectors are designed to reduce the number of components, making them easier to assemble and with fewer parts to stock. They are supplied in single set or bulk components, eliminating the costly effort of disassembly and providing further cost savings. The new generation of mPm DIN connectors provide repeatable, unsurpassed IP67 sealing performance (even in humidity) using an external nut over the cable. The external nut accepts a wider range of cables from 4mm to 9mm, reducing the current number of different nuts from 3 (P607, P608, P611) to 1 (external nut).

Choose from the largest selection of DIN field-attachables, molded DIN and DIN accessories.

The mPm connectors with moulded cables offer a fast and efficient method of connection resulting in greatly reduced installation time and cost. They can be supplied with or without integral LED indicators and suppression circuits. A diagram is printed on each connector with circuit to allow easy user identification.

BradConnectivity mPm overmolded Junior Timer connectors are available in straight and 90 degree versions. These pre-wired overmolded connectors offer an economical alternative to hard wiring and mate with industry standard Junior Timer interfaces or solenoids and other mobile hydraulic devices and other harsh environment applications. The integrated surge suppression circuitry (VDR) protects the system and extends overall lifetime. LED indication is built into the connector head for easy identification of system status. With an IP65 environmental rating the Junior Timer provides protection in harsh and demanding environments. Plus the cable locking clip protects the connection in high vibration applications.

Also mPm offers a wide range of proximity switches. They are available with attached flying leads or a plug connector, the latter facilitating maintenance operations with all voltage disconnected. The plug connector is also available with an M12 ring nut fastener, giving enhanced security in the presence of high vibrations. The switches are impregnated with epoxy resin to give protection in accordance with IP67, excellent resistance to impact and operational temperature range of -20˚ to +85˚C.



DIN Field Attachable



DIN Connectors



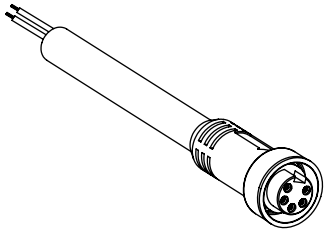
DIN Overmolded Valve Connectors



DIN Splitter

Brad® Mini-Change® A-Size Single-Ended Cordset STOOW Cable

130006
Internal Thread



Features and Benefits
- Patented Quad Beam contact with gold/nickel plating provides high reliability and low resistance
- Epoxy coated coupling nut is corrosion and weld slag resistant
- Cable is oil, water and UV resistant

Reference Information
UL File No.: E152210
CSA File No.: LR6837

Electrical
Voltage: 600V AC/DC
Current: 2P—13.0A
3P—13.0A
4P—10.0A
5P—8.0A
6P—8.0A

Mechanical
Connector Face: PVC UL 94-V0
Molded Body: PVC UL 94-V0
Coupling Nut: Zinc diecast with black epoxy coat. Optional Stainless Steel type 303, type 316 or gray Nylon 6/6
Cable: Yellow, #16 AWG, UL STOOW, CSA ST, PVC jacket and insulation, 65 x #34 stranding
Cable Diameter: 2P—0.37" (9.4mm)
3P—0.41" (10.4mm)
4P—0.42" (10.7mm)
5P—0.50" (12.7mm)
6P—0.54" (13.7mm)

Environmental
Protection: IP67

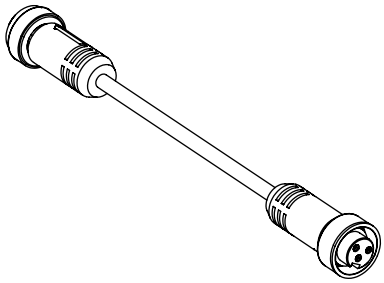
Poles	Length	Male Straight		Female Straight		Female Right Angle	
		Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
2	3.0'	102002A01F030	130006-0156	102000A01F030	130006-0088	102001A01F030	130006-0134
	6.0'	102002A01F060	130006-0159	102000A01F060	130006-0091	102001A01F060	130006-0137
	12.0'	102002A01F120	130006-0162	102000A01F120	130006-0096	102001A01F120	130006-0141
	20.0'	102002A01F200	130006-0168	102000A01F200	130006-0102	102001A01F200	130006-0146
3	3.0'	103002A01F030	130006-0529	103000A01F030	130006-0217	103001A01F030	130006-0422
	6.0'	103002A01F060	130006-0534	103000A01F060	130006-0221	103001A01F060	130006-0426
	12.0'	103002A01F120	130006-0542	103000A01F120	130006-0232	103001A01F120	130006-0430
	20.0'	103002A01F200	130006-0549	103000A01F200	130006-0241	103001A01F200	130006-0436
4	3.0'	104002A01F030	130006-0991	104000A01F030	130006-0725	104001A01F030	130006-0898
	6.0'	104002A01F060	130006-0995	104000A01F060	130006-0728	104001A01F060	130006-0902
	12.0'	104002A01F120	130006-1002	104000A01F120	130006-0737	104001A01F120	130006-0905
	20.0'	104002A01F200	130006-1009	104000A01F200	130006-0744	104001A01F200	130006-0912
5	3.0'	105002A01F030	130006-1435	105000A01F030	130006-1160	105001A01F030	130006-1346
	6.0'	105002A01F060	130006-1438	105000A01F060	130006-1163	105001A01F060	130006-1349
	12.0'	105002A01F120	130006-1447	105000A01F120	130006-1171	105001A01F120	130006-1353
	20.0'	105002A01F200	130006-1453	105000A01F200	130006-1179	105001A01F200	130006-1360
6	3.0'	106002A01F030*	130006-1672*	106000A01F030	130006-1579	106001A01F030*	130006-1651*
	6.0'	106002A01F060*	130006-1675*	106000A01F060	130006-1583	106001A01F060*	130006-1653*
	12.0'	106002A01F120*	130006-1679*	106000A01F120	130006-1590	106001A01F120*	130006-1656*
	20.0'	106002A01F200*	130006-1686*	106000A01F200	130006-1600	106001A01F200*	130006-1661*

*Note: This is the A-Size 6-pole Mini-Change, please refer to series 130007 for the B-Size.

Brad® Mini-Change® A-Size Double-Ended Cordset STOOW Cable

130011

Extension Cable
Internal Thread Both Ends



Features and Benefits

- Patented Quad Beam contact with gold/nickel plating provides high reliability and low resistance
- Epoxy coated coupling nut is corrosion and weld slag resistant
- Cable is oil, water and UV resistant

Reference Information

UL File No.: E152210
CSA File No.: LR6837

Electrical

Voltage: 600V AC/DC
Current: 2P—13.0A
3P—13.0A
4P—10.0A
5P—8.0A
6P—8.0A

Mechanical

Connector Face: PVC UL 94-V0
Molded Body: PVC UL 94-V0
Coupling Nut: Zinc diecast with black epoxy coat. Optional Stainless Steel type 303, type 316 or gray Nylon 6/6
Cable: Yellow, #16 AWG, UL STOOW, CSA ST, PVC jacket and insulation, 65 x #34 stranding
Cable Diameter: 2P—0.37" (9.4mm)
3P—0.41" (10.4mm)
4P—0.42" (10.7mm)
5P—0.50" (12.7mm)
6P—0.54" (13.7mm)

Environmental

Protection: IP67

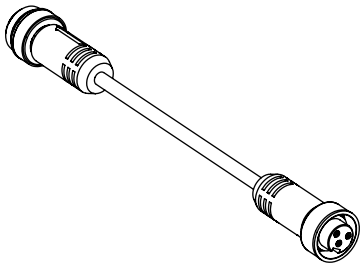
Poles	Length	Female/Male	
		Old Part No.	Order No.
2	6.0'	112020A01F060	130010-0147
	12.0'	112020A01F120	130010-0152
	20.0'	112020A01F200	130010-0159
3	3.0'	113020A01F030	130010-0214
	6.0'	113020A01F060	130010-0221
	12.0'	113020A01F120	130010-0228
	15.0'	113020A01F150	130010-0233
	20.0'	113020A01F200	130010-0238
4	3.0'	114020A01F030	130010-0519
	6.0'	114020A01F060	130010-0525
	12.0'	114020A01F120	130010-0533
	20.0'	114020A01F200	130010-0541
5	3.0'	115020A01F030	130010-0999
	6.0'	115020A01F060	130010-1005
	12.0'	115020A01F120	130010-1013
	15.0'	115020A01F150	130010-1016
	20.0'	115020A01F200	130010-1020
6*	3.0'	116020A01F030	130010-1312
	6.0'	116020A01F060	130010-1316
	12.0'	116020A01F120	130010-1327
	20.0'	116020A01F200	130010-1338

*Note: This is the A-Size 6-pole Mini-Change, please refer to series 130011 for the B-Size.

Brad® Mini-Change® A-Size Double-Ended Cordset TPE Cable

130010

Extension Cord
Male External Thread
Female Internal Thread



Features and Benefits

- Patented Quad Beam contact with gold/nickel plating provides high reliability and low resistance
- Epoxy coated coupling nut is corrosion and held slag resistant
- TPE cable is weld slag and coolant resistant. It is exposed-run, tray routed and continuous flex rated.

Reference Information

UL File No.: E152210
CSA File No.: LR6837

Electrical

Voltage: 600V AC/DC
Current: 3P—13.0A
4P—10.0A
5P—8.0A

Mechanical

Connector Face: PVC UL 94-V0
Molded Body: PVC UL 94-V0
Coupling Nut: Zinc diecast with black epoxy coat. Optional Stainless Steel type 303 or type 316
Cable: Yellow, #16 AWG, UL type TC-ER, CSA TC, TPE jacketed, PVC/Nylon insulation, 65 x #34 stranding
Outside Diameter: 3P—0.41" (10.4mm)
4P—0.42" (10.7mm) .43" (10.9mm)
5P—0.50" (12.7mm) .46" (11.7mm)

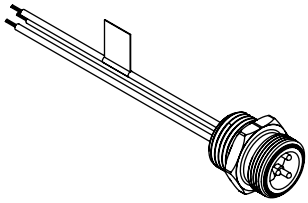
Environmental

Protection: IP67

Poles	Length	Female/Male	
		Old Part No.	Order No.
3	1.0m	113030K13M010	130010-0487
	2.0m	113030K13M020	130010-0488
	3.0m	113030K13M030	130010-0489
	4.0m	113030K13M040	130010-0490
	5.0m	113030K13M050	130010-0491
	6.0m	113030K13M060	130010-0492
4	1.0m	114030K12M010	130010-0864
	2.0m	114030K12M020	130010-0865
	3.0m	114030K12M030	130010-0866
	4.0m	114030K12M040	130010-0867
	5.0m	114030K12M050	130010-0868
	6.0m	114030K12M060	130010-0869
5	1.0m	115030K13M010	130010-0102
	2.0m	115030K13M020	130010-0103
	3.0m	115030K13M030	130010-0104
	4.0m	115030K13M040	130010-1750
	5.0m	115030K13M050	130010-0105
	6.0m	115030K13M060	130010-1758

Brad® Mini-Change® A-Size Receptacle 16 AWG

130013/130099
External Thread with Leads



Features and Benefits
- Patented Quad Beam contact with gold/nickel plating provides high reliability and low resistance
- Black epoxy coated Zinc diecast shell design
- #16 AWG, PVC insulated leads, U.S. color code

Reference Information
UL File No.: E152210
CSA File No.: LR6837

Electrical
Voltage: 600V AC/DC
Amperage: 2P—13.0A
3P—13.0A
4P—10.0A
5P—8.0A
6P—8.0A

Mechanical
Shell: Zinc diecast with black epoxy coat, optional stainless steel type 303, type 316 or gray Nylon 6/6
90°—Zinc diecast with black epoxy coat (only)
Flange Mount—Gray anodized aluminum, optional stainless steel type 303
Insert: PVC UL 94-V0
Conductors: #16 AWG, PVC insulation over 26 x #30 Copper stranding, 600V, UL Style 1015, CSA TEW

Environmental
Protection: IP67

Accessories

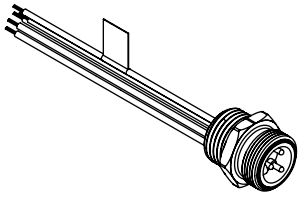
Old Part No.	Order No.	Description
5601	130099-0143	Locknut ½" - 14NPT, Zinc plated Steel
5611	130099-0149	½" Gasket, black neoprene

Poles	Length	Male		Female		Orientation
		Old Part No.	Order No.	Old Part No.	Order No.	
2	12"	1R2006A20A120	130013-0076	1R2004A20A120	130013-0060	Straight
	6'	1R2006A20F060	130013-0084	1R2004A20F060	130013-0067	
	12"	1R2007A20A120	130013-0090	1R2005A20A120	130013-0074	90°
3		1R3006A20A120	130013-0202	1R3004A20A120	130013-0135	Straight
	6'	1R3006A20F060	130013-0215	1R3004A20F060	130013-0148	
	12"	1R3007A20A120	130013-0247	1R3005A20A120	130013-0184	90°
4		1R4006A20A120	130013-0353	1R4004A20A120	130013-0314	Straight
	6'	1R4006A20F060	130013-0361	1R4004A20F060	130013-0325	
	12"	1R4007A20A120	130013-0386	1R4005A20A120	130013-0337	90°
5		1R5006A20A120	130013-0493	1R5004A20A120	130013-0442	Straight
	6'	1R5006A20F060	130013-0503	1R5004A20F060	130013-0452	
	12"	1R5007A20A120	130013-0534	1R5005A20A120	130013-0482	90°
6		1R6006A20A120	130013-0593	1R6004A20A120*	130013-0567*	Straight
	6'	1R6006A20F060	130013-0605	1R6004A20F060*	130013-0576*	
	12"	1R6007A20A120	130013-0612	1R6005A20A120*	130013-0589*	90°

*Note: This is the A-Size 6-pole Mini-Change, please refer to series 130014 for the B-Size.

Brad® Mini-Change® A-Size Receptacle

130013
With Leads



Features and Benefits
- Patented Quad Beam contact with gold/nickel plating provides high reliability and low resistance
- Black epoxy coated Zinc diecast shell design
- #16 AWG, PVC insulated leads, U.S. color code

Reference Information
UL File No.: E152210
CSA File No.: LR6837

Electrical
Voltage: 300V AC/DC
Current: 3P—10.0A
4P—7.0A
5P—5.6A

Mechanical
Shell: Zinc diecast with black epoxy coat, optional stainless steel type 303
Insert: PVC UL 94-V0
Conductors: #18 AWG, PVC insulation over 16 x #30 Copper stranding, 300V, UL Style 1061, CSA AWM SR

Environmental
Protection: IP 68, NEMA 6P

AWG	Mounting Thread	Poles	Length	Male		Color Rotation
				Old Part No.	Order No.	
18	½" -1 NPT	3	12"	1R3006A17A120	130013-0193	#18 Auto
		4		1R4006A16A120	130013-0341	#18 IEC
		5		1R5006A17A120	130013-0489	#18 Auto
16	½" -NPT	4		1R4006A39M020	1300130378	#16 IEC
18	PG 13.5	3		1R3D06A25A120	130013-0268	#18 IEC
		4		1R4D06A16A120	130013-0396	
		5		1R5D06A25A120	130013-0548	

Solder Cup Contacts

Mounting Thread	Poles	Order No.	
		Male	Female
½"-14 NPT	4		84854-9102
	5	84854-9101	84854-9100

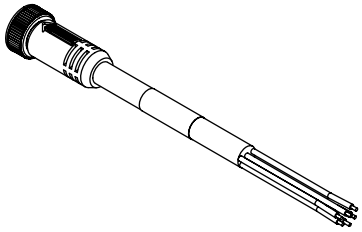
Internal Thread

Poles	Length	Female		Color Rotation
		Old Part No.	Order No.	
3	2M	1R3000A20M020	130013-0112	#16 US
4		1R4000A39M020	130013-0301	
5		1R5000A20M020	130013-0426	#16 IEC

Brad® Mini-Change® B-Size Single-Ended Cordset STOOW Cable

130007

Internal Thread



Features and Benefits

- Patented Quad Beam contact with gold/nickel plating provides high reliability and low resistance
- Epoxy coated coupling nut is corrosion and held slag resistant
- Cable is oil, water and UV resistant

Reference Information

UL File No.: E152210
CSA File No.: LR6837

Electrical

Voltage: 600V AC/DC
Current: 6P—8.0A
7P—8.0A
8P—7.0A

Mechanical

Connector Face: PVC UL 94-V0
Molded Body: PVC UL 94-V0
Coupling Nut: Zinc diecast with black epoxy coat, optional Stainless Steel type 303
Cable: Yellow, #16 AWG, UL STOOW, CSA ST, PVC jacket and insulation, 65 x #34 stranding
Outside Diameter: 6P—0.54" (13.7mm)
7P—0.54" (13.7mm)
8P—0.61" (15.5mm)

Environmental

Protection: IP67

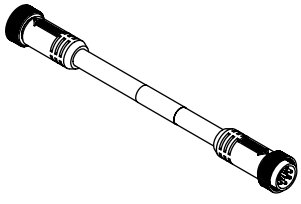
Poles	Length	Male Straight		Female Straight	
		Old Part No.	Order No.	Old Part No.	Order No.
6	3'	206002A01F030*	130007-0049*	206000A01F030	130007-0022
	6'	206002A01F060*	130007-0051*	206000A01F060	130007-0024
	12'	206002A01F120*	130007-0054*	206000A01F120	130007-0026
	20'	206002A01F200*	130007-0057*	206000A01F200	130007-0028
7	3'	207002A01F030	130007-0113	207000A01F030	130007-0071
	6'	207002A01F060	130007-0115	207000A01F060	130007-0073
	12'	207002A01F120	130007-0117	207000A01F120	130007-0076
	20'			207000A01F200	130007-0080
8	3'	208002A01F030	130007-0197	208000A01F030	130007-0139
	6'	208002A01F060	130007-0199	208000A01F060	130007-0142
	12'	208002A01F120	130007-0202	208000A01F120	130007-0145
	20'	208002A01F200	130007-0204	208000A01F200	130007-0149

*Note: This is the B-Size 6-pole Mini-Change, please refer to series 130006 for the A-Size.

Brad® Mini-Change® B-Size Double-Ended Cordset STOOW Cable

130011

Extension Cable
Internal Thread Both Ends



Features and Benefits

- Patented Quad Beam contact with gold/nickel plating provides high reliability and low resistance
- Epoxy coated coupling nut is corrosion and held slag resistant
- Cable is oil, water and UV resistant

Reference Information

UL File No.: E152210
CSA File No.: LR6837

Electrical

Voltage: 600V AC/DC
Current: 6P—8.0A
7P—8.0A
8P—7.0A

Mechanical

Connector Face: PVC UL 94-V0
Molded Body: PVC UL 94-V0
Coupling Nut: Zinc diecast with black epoxy coat, optional Stainless Steel type 303
Cable: Yellow, #16 AWG, UL STOOW, CSA ST, PVC jacket and insulation, 65 x #34 stranding
Outside Diameter: 6P—0.54" (13.7mm)
7P—0.54" (13.7mm)
8P—0.61" (15.5mm)

Environmental

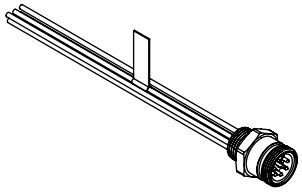
Protection: IP67

Poles	Length	Female Straight/Male Straight	
		Old Part No.	Order No.
6	6'	226020A01F060*	130011-0010*
	12'	226020A01F120*	130011-0016*
	20'	226020A01F200*	130011-0019*
7	6'	227020A01F060	130011-0051
	12'	227020A01F120	130011-0055
	20'	227020A01F200	130011-0057
8	6'	228020A01F060	130011-0119
	12'	228020A01F120	130011-0124
	20'	228020A01F200	130011-0130

*Note: This is the B-Size 6-pole Mini-Change, please refer to series 130006 for the A-Size.

Brad® Mini-Change® B-Size Receptacle 16 AWG

130014
External Thread



Features and Benefits
- Patented Quad Beam contact with gold/nickel plating provides high reliability and low resistance
- Black epoxy coated Zinc diecast shell design
- #16 AWG, PVC insulated leads, U.S. color code

Reference Information
UL File No.: E152210
CSA File No.: LR6837

Electrical
Voltage: 600V AC/DC
Current: 6P—8.0A
7P—8.0A
8P—7.0A

Mechanical
Shell: Zinc diecast with black epoxy coat, optional Stainless Steel type 303
Insert: PVC UL 94-V0
Conductors: #16 AWG, PVC insulation over 26 x #30 Copper stranding, 600V, UL Style 1015, CSA TEW

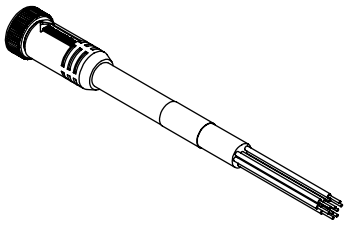
Environmental
Protection: IP67

Poles	Lead Length	Male		Female	
		Old Part No.	Order No.	Old Part No.	Order No.
6	12"	2R6006A20A120*	130014-0025*	2R6004A20A120	130014-0015
	6'	2R6006A20F060*	130014-0032*	2R6004A20F060	130014-0019
7	12"	2R7006A20A120	130014-0050	2R7004A20A120	130014-0037
	6'	2R7006A20F060	130014-0055	2R7004A20F060	130014-0042
8	12"	2R8006A20A120	130014-0078	2R8004A20A120	130014-0061
	6'	2R8006A20F060	130014-0084	2R8004A20F060	130014-0067

*Note: This is the B-Size 6-pole Mini-Change, please refer to series 130006 for the A-Size.

Brad® Mini-Change® C-Size Single-Ended Cordset STOOW Cable

130008
Internal Thread



Features and Benefits
- Patented Quad Beam contact with gold/nickel plating provides high reliability and low resistance
- Epoxy coated coupling nut is corrosion and weld slag resistant
- Cable is oil, water and UV resistant

Reference Information
UL File No.: E152210
CSA File No.: LR6837

Electrical
Voltage: 600V AC/DC
Current: 9P—7.0A
10P—7.0A
12P—5.0A

Mechanical
Connector Face: PVC UL 94-V0
Molded Body: PVC UL 94-V0
Coupling Nut: Zinc diecast with black epoxy coat. Optional Stainless Steel type 303 or gray Nylon 6/6
Cable: Yellow, #16 AWG, UL STOOW, CSA ST, PVC jacket and insulation, 65 x #34 stranding
Outside Diameter: 9P—0.64" (16.3mm)
10P—0.66" (16.8mm)
12P—0.71" (18.0mm)

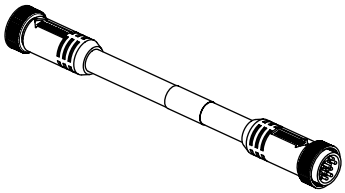
Environmental
Protection: IP67

Poles	Length	Male Straight		Female Straight		Female Right Angle	
		Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
9	3'	309002A01F030	130008-0364	309000A01F030	130008-0323		
	6'	309002A01F060	130008-0366	309000A01F060	130008-0325	309001A01F060	130008-0351
	12'	309002A01F120	130008-0368	309000A01F120	130008-0329	309001A01F120	130008-0353
	20'	309002A01F200	130008-0370	309000A01F200	130008-0332	309001A01F200	130008-0355
10	3'	301002A01F030	130008-0115	301000A01F030	130008-0023		
	6'	301002A01F060	130008-0117	301000A01F060	130008-0025	301001A01F060	130008-0098
	12'	301002A01F120	130008-0120	301000A01F120	130008-0028	301001A01F120	130008-0100
	20'	301002A01F200	130008-0124	301000A01F200	130008-0033	301001A01F200	130008-0104
12	3'	302002A01F030	130008-0229	302000A01F030	130008-0154		
	6'	302002A01F060	130008-0231	302000A01F060	130008-0157	302001A01F060	130008-0212
	12'	302002A01F120	130008-0234	302000A01F120	130008-0161	302001A01F120	130008-0215
	20'	302002A01F200	130008-0238	302000A01F200	130008-0165	302001A01F200	130008-0218

Brad® Mini-Change® C-Size Double-Ended Cordset PVC Cable

130012

Extension Cord
Internal Thread Both Ends



Features and Benefits

- Patented Quad Beam contact with gold/nickel plating provides high reliability and low resistance
- Epoxy coated coupling nut is corrosion and weld slag resistant
- Cable is oil, water and UV resistant

Reference Information

UL File No.: E152210
CSA File No.: LR6837

Electrical

Voltage: 600V AC/DC
Current: 9P—7.0A
10P—7.0A
12P—5.0A

Mechanical

Connector Face: PVC UL 94-V0
Molded Body: PVC UL 94-V0
Coupling Nut: Zinc diecast with black epoxy coat, optional Stainless Steel type 303
Cable: Yellow, #16 AWG, UL STOOW, CSA ST, PVC jacket and insulation, 65 x #34 stranding
Outside Diameter: 9P—0.64" (16.3mm)
10P—0.66" (16.8mm)
12P—0.71" (18.0mm)

Environmental

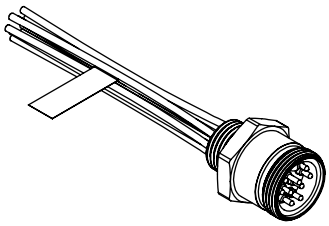
Protection: IP67

Poles	Length	Male Straight	
		Old Part No.	Order No.
9	6'	339020A01F060	130012-0385
	12'	339020A01F120	130012-0391
	20'	339020A01F200	130012-0396
10	6'	331020A01F060	130012-0009
	12'	331020A01F120	130012-0016
	20'	331020A01F200	130012-0019
12	6'	332020A01F060	130012-0113
	12'	332020A01F120	130012-0119
	20'	332020A01F200	130012-0127

Brad® Mini-Change® C-Size Receptacle

130015

External Thread



Features and Benefits

- Patented Quad Beam contact with gold/nickel plating provides high reliability and low resistance
- Black epoxy coated Zinc diecast shell design
- #16 AWG, PVC insulated leads, U.S. color code

Reference Information

UL File No.: E152210
CSA File No.: LR6837

Electrical

Voltage: 600V AC/DC
Current: 9P—7.0A
10P—7.0A
12P—5.0A

Mechanical

Shell: Zinc diecast with black epoxy coat, optional Stainless Steel type 303
Insert: PVC UL 94-V0
Conductors: #16 AWG, PVC insulation over 36 x #30 Copper stranding, 600V, UL Style 1015, CSA TEW

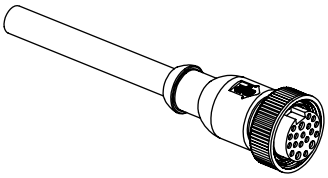
Environmental

Protection: IP67

Mounting Thread	Poles	Length	Male Straight		Female Straight	
			Old Part No.	Order No.	Old Part No.	Order No.
½"-14 NPT	9	12"	3R9006A20A120	130015-0137	3R9004A20A120	130015-0117
		6'	3R9006A20F060	130015-0143	3R9004A20F060	130015-0124
	10	12"	3R1006A20A120	130015-0044	3R1004A20A120	130015-0024
		6'	3R1006A20F060	130015-0049	3R1004A20F060	130015-0033
	12	12"	3R2006A20A120	130015-0076	3R2004A20A120	130015-0054
		6'	3R2006A20F060	130015-0082	3R2004A20F060	130015-0062

Brad® Mini-Change® C-Size Single and Double-Ended Cordset and Receptacle

130008/130012/130015
19-Pole



Features and Benefits
- #18 AWG power and #22 AWG control conductors
- Oil- and abrasion-resistant black polyurethane (PUR) jacket
- Mating receptacles available in male and female designs

Electrical
Voltage: 300V AC/DC
Current: 3.0A—18AWG
2.0A—22AWG

Mechanical
Connector Face: PVC UL 94-V0
Molded Body: PVC UL 94-V0
Coupling Nut: Zinc diecast with black epoxy coat
Contact: Gold plated Brass
Cable: Black #18 AWG (.75mm²) and #22 AWG (.34mm²), PUR jacket and PVC conductor insulation over 42 x .15mm (#18) and 42 x .10mm (#22) Copper stranding
Outside Diameter: 19P—.45" (11.4mm)
Receptacle Shell: Gray anodized Aluminum
Receptacle Insert: PVC UL 94-V0
Receptacle Conductors: #22 AWG with PVC insulation
#18 AWG with PVC insulation

Environmental
Protection: IP67

Single-Ended Cordset

Poles	Length	Female Straight		Female Right Angle	
		Old Part No.	Order No.	Old Part No.	Order No.
19	5M	303000P80M050	130008-0303	303001P80M050	130008-0315
	10M	303000P80M100	130008-0306	303001P80M100	130008-0316
	5M	303000B20M050	130008-0294	303001B20M050	130008-0312
	10M	303000B20M100	130008-0295	303001B20M100	130008-0313

Double-Ended Cordset

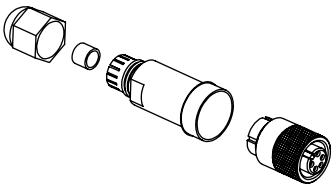
Poles	Length	Male Straight/Female Straight	
		Old Part No.	Order No.
19	5M	333030P80M050	130012-0339
	10M	333030P80M100	130012-0341
	5M	333030B20M050	130012-0561
	10M	333030B20M100	130012-0562

Receptacle

Poles	Length	Male		Female	
		Old Part No.	Order No.	Old Part No.	Order No.
19	0.3M	3R3N36E80C300	130015-0109	3R3N30E80C300	130015-0098
	2M	3R3N36E80M020	130015-0112	3R3N30E80M020	130015-0102

Brad® Mini-Change® Field Attachable Connector

130017



Features and Benefits
- Allows easy field conversion to quick disconnect
- Male with internal or external threads—female with internal threads
- Secure screw terminals #15 AWG to #24 AWG—compatible with existing Mini-Change®

Reference Information
CSA File No.: LR6837

Electrical
Voltage: 600V AC/DC
Current: 3P—13.0A
4P—10.0A
5P—8.0A

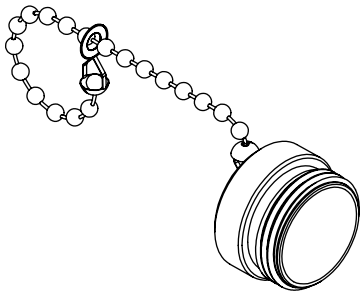
Mechanical
Connector Face: Polyurethane
Body: Polyamide PA6
Contact: Gold-plated Brass
Coupling Nut: Nickel-plated Brass or type 36 stainless steel
Grommet: Neoprene
Cable Range O.D.: .20" to .48" (5.0 to 12.0mm)
Acceptable Wire Gauge Range:
#24 AWG (.25mm²) to #15 AWG (2.0mm²)

Environmental
Protection: IP67

Poles	Male		Female		Description
	Old Part No.	Order No.	Old Part No.	Order No.	
3	1A3002-34	130017-0008	1A3000-34	130017-0004	Straight with internal threads
	1A3002-348	130017-0009	1A3000-348	130017-0005	Stainless Steel straight with internal threads
	1A3006-34	130017-0011			Straight with external threads
	1A3006-348	130017-0012			Stainless Steel straight with external threads
4	1A4002-34	130017-0018	1A4000-34	130017-0015	Straight with internal threads
	1A4002-348	130017-0019	1A4000-348	130017-0016	Stainless Steel straight with internal threads
	1A4006-34	130017-0020			Straight with external threads
	1A4006-348	130017-0021			Stainless Steel straight with external threads
5	1A5002-34	130017-0026	1A5000-34	130017-0023	Straight with internal threads
	1A5002-348	130017-0027	1A5000-348	130017-0024	Stainless Steel straight with internal threads
	1A5006-34	130017-0029			Straight with external threads
	1A5006-348	130017-0030			Stainless Steel straight with external threads

Brad® Mini-Change® Accessories

130006/130013/ 130018/130201



Features and Benefits

- Closure caps for receptacles, connectors and Multi-ports
- Threaded unions for mating (2) cordsets
- Female and male plugs for liquid tight conduit terminations
- 90° adapters with (1) male and (1) female plug

Reference Information

UL File No.: E152210*
CSA File No.: LR6837†

Electrical

Liquid-tight plugs and 90° adaptors
Voltage: 600V
Current: 2P—13.0A
3P—10.0A
4P—8.0A
5P—8.0A

Mechanical

Closure Caps: Anodized aluminum, stainless steel or gray nylon (A-size only)
Threaded Union: Gray anodized Aluminum
Liquid-tight Plugs Connector Body: Zinc plated Steel
Coupling Nut: Gray anodized Aluminum
Clamp Nut: Zinc plated Steel
Insert: PVC UL 94-V0
90° Adapter Connector Body: Yellow PVC
Coupling Nuts: Zinc diecast with black epoxy
Insert: PVC UL 94-V0

Environmental

Protection: IP67

Dust Cap

Size	Poles	Plug			Receptacle		
		Old Part No.	Order No.	Description	Old Part No.	Order No.	Description
A	2-6	65-0085	130201-1109	Black Epoxy Coat	65-0086	130201-1111	Anodized Aluminum
		65-0085SS	130201-1110	Stainless Steel	65-0086N	130201-1112	Nylon
					65-0086SS	130201-1113	Stainless Steel
B	6, 7 and 8	65-0102	130201-1115	Anodized Aluminum	65-0103	130201-1116	Anodized Aluminum
					65-0103SS	130201-1117	Stainless Steel
C	9, 10 and 12	65-0104	130201-1118	Anodized Aluminum	65-0105	130201-1120	Anodized Aluminum
		65-0104SS	130201-1119	Stainless Steel	65-0105SS	130201-1121	Stainless Steel

Threaded Unions

Old Part No.	Order No.	Description
55-0426	130201-1224	A-Size, 2P-6P
55-0466	130201-1226	B-Size, 6P, 7P, 8P
55-0496	130201-1228	C-Size, 9P, 10P, 12P

Bulk Head Pass-Through Adapters

Old Part No.	Order No.
1R3030	130013-0255*†
1R4030	130013-0388†
1R5030	130013-0541†

* UL File No.: E152210
† CSA File No.: LR6837

Plugs

Poles	Male		Female	
	Old Part No.	Order No.	Old Part No.	Order No.
2	40780	130006-2098	40718	130006-2098
3	41037	130006-2102	40925	130006-2099
4	51149	130006-0184	41132	130006-2103
5	41593	130006-2109	41344	130006-2107

90° Adapters

Poles	Old Part No.	Order No.
2	40761	130018-0204
3	41048	130018-0206
4	41212	130018-0207
5	41481	130018-0210

The Brad® Brand of Automation Products—Designed for Performance and Reliability

Molex empowers the industrial infrastructure through its Brad automation products. Brad products are ruggedly designed, engineered and constructed to provide easy installation and long-term, reliable performance in harsh environments. Whether they're for connecting power, industrial networks or automation equipment such as sensors, I/O devices, computer systems, robots, or conveyor systems, Brad products are the ideal choice for connecting the plant floor.

Brad products include:

BradConnectivity™ connectors, cordsets and distribution boxes for sensor and actuator applications. Designed to meet our customers' requirements and built industrial-tough to ensure flexibility, interoperability and rock-solid performance. The BradConnectivity solutions include:

Mini-Change® Connectivity

The industry's first quick-disconnect alternative to hardwiring, commonly used with 18 and 30mm proximity switches, photoelectric sensors and limit switches as well as for network I/O-power connection.

Micro-Change® (M12) Connectivity

When space and time are in short supply, Micro-Change (M12) connectivity provides compact migration towards soft-wiring solutions. These industry standard connectors are available in single and dual keyways for a myriad of network and I/O applications.

Nano-Change® (M8) Connectivity

The industry's broadest selection of space saving cordsets, receptacles, inserts, splitters and molded junction boxes. They provide rugged performance in tight spaces while minimizing downtime, maintenance and wiring time.

BradCommunications™ network interface cards, gateways, diagnostic tools and Industrial Ethernet switches. Designed to enhance communication of industrial networks and devices. The BradCommunications solutions include:

Network interface cards

PC network interfaces connect "Soft" PLC, HMI/OI or SCADA applications installed on a PC based computer to an industrial network

PLC communication modules connect a PLC to an industrial network

Embedded interfaces quickly integrate an industrial network into an OEM device

Gateways connect networks to other networks or devices, exchange information across many protocols as well as creating a communications link between the plant floor and the office.

Diagnostic tools provide a clear understanding of the "health" of the network to increase production uptime as well as obtaining an early warning through its predictive technologies.

Industrial Ethernet switches intelligently route Ethernet messages, eliminate collisions and provide deterministic performance of your Ethernet network.

BradControl™ networked I/O for on-machine applications. Designed to provide reliable connections in harsh environments between industrial controllers communicating on an industrial network and I/O devices. The BradControl solution includes:

Classic 60mm I/O modules

Compact 30mm I/O modules

BradPower™ products bring power reliably to motors, lights, heaters and other electrical devices. The BradPower solution includes:

Cordsets, connectors, receptacles, tees and reducers that create a modular, flexible wiring system for machine power distribution and motor control

BradPower™ Modular Power Solutions Overmolded Cordsets and Connectors



Features and Benefits

- Available in 3 or 4 pole
- UL Listed for use in US and Canada
- IP67, IP68 and IP69K rated
- NFPA-79-2002 standard compliance
- Total installed cost can be reduced from 20 to 50% vs. conventional hard-wiring
- Modular components mean faster, easier installation and maintenance
- Eliminates the potential for mis-wiring
- Requires no tools, no pipe bending, no wire pulling, no conduit or raceways
- Complete range of modular components available for food and beverage processors

Modular, Easy to install

BradPower solutions replace machine hard wiring with modular, quick-connect systems comprised of crush-resistant, pre-wired cordsets and factory-molded connectors. The result is a robust, scalable and easy-to-install power distribution system that does not require the specialized tools and labor typically associated with traditional conduit or raceway installations.

Performance

BradPower wiring systems' modular components make installation faster, easier and more reliable. Where multiple machines are involved, assembling the systems is consistent and repeatable.

Bottom-Line Benefits

Compared to traditional conduit-based hard wiring, BradPower modular solutions provide:

- Reduced labor costs
- Simplified connections
- Increased plant flexibility
- Reduced commission time

BradPower modular solutions deliver rapid return on capital equipment investments

Markets and Applications

Robotic machinery
Material handling equipment
Packaging systems
Food and beverage processing
Factory automation
Motor control
Power distribution

BradPower™ Modular Power Solutions

Trunk/Feeder Cordsets

Features

- 600V AC; 30.0A (3 pole) and 25.0A (4 pole)
- Dual rated 10 AWG cable
- Multiple key options available



Drop/Branch Cordsets

Features

- 600V AC
- 15.0A (3 pole, 14 AWG); 13.0A (3 pole, 16 AWG)
- 15.0A (4 pole, 14 AWG); 10.0A (4 pole, 16 AWG)
- Features Mini-Change® to allow for quick connection of field devices



Tees

Features

- 600V AC
- 30.0A (3 pole) and 25.0A (4 pole)
- Multiple key options available
- Multiple key options available
- Serve as the termination point at motors and devices



Receptacles

Features

- 600V AC
- 30.0A (3 pole) and 25.0A (4 pole)
- Multiple key options available
- Tees with drop connector available for access points to branch circuits to field devices
- Tees with trunk connector available to split main feeder circuit into sub-segments



Reducers

Features

- 600V AC
- Trunk reducer to female drop
- Reducers are essential in achieving the most versatile, scalable wiring system possible
- Multiple key options available (trunk/feeder lines)



BradPower™ Modular Power Solutions

Field Attachables



Features

- 600V AC
- Trunk/Feeder—30.0A (3 pole); 25.0A (4 pole)
- Drop/Branch—15.0A
- Cut cable to length on-site for maximum flexibility and convenience

Disconnect Switch



Features

- 600V AC
- 15.0A
- Easily installed without special tools or highly skilled labor

Accessories



Features

- Closure caps maintain sealing integrity and provide convenient "stop points" for expandable power systems
- Locking clips snap over the outside of trunk/feeder or drop/branch connection points to limit access to the flexible wiring system

BradConnectivity™ M23 Signal and Power Connectors

BradConnectivity M23 connectors and receptacles for signal and power applications were designed to meet our customers' stringent requirements for reliability and performance in the harshest of industrial environments.

M23 Signal Connectors

Includes field attachable male and female cable connectors and receptacles from 6-pole to 19-pole in straight and right-angled versions. Cable connectors for a broad range of cable outer diameters and receptacles for front mounting or back mounting guarantee the highest flexibility.

Features

- Cable assembly and shielding in one assembly step
- Clipped-on strain-relief insert prevents cable rotation
- Flexible EMC-O-Ring guarantees reliable EMC-protection
- Radial-encompassing spring contacts assure low plug-in resistance and high mating cycles
- Integrated locking clip secures the contact in the insert and allows easy assembly and disassembly



M23 Power Connectors

For power applications up to 28 amps. Brad® offers field-attachable cable connectors and receptacles in 5+PE and 4+3+PE versions. Applying the same modular design as the signal connectors, both pole counts can be used in straight and right-angled versions.

Crimp contacts are available with different crimp ranges. Female contacts with integrated springs assure exceptional electrical performance with ultimate contact reliability in both signal and power product ranges.

Additional tools and accessories are available, contact Molex

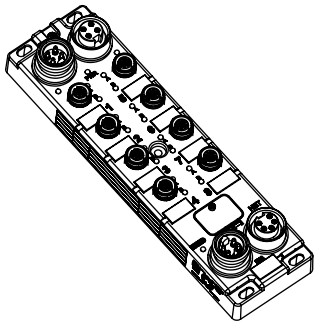
Features

- Modularity—same insert for all housings
- The integrated locking clip allows quick assembly
- Complete assembly and disassembly without special tools
- Lowest contact resistance as a result of a Gold-plated contact area
- Integrated strain-relief fitting



DeviceNet* IP67 I/O Module

112092



Features and Benefits

- IP67 digital IO modules—reliable world-class product for harsh environment
- Supports ADR and Quick-Connect
- Standard mounting hole pattern allows for interchangeable with popular I/O modules
- Visible diagnostic through status LEDs for network, module, external power, inputs and outputs

Reference Information

Approvals: ODVA, UL, CUL, CUE

Compact

Physical

I/O Configurations:
- 8 inputs
- 4 inputs/4 outputs

I/O Connectors:
- 4 Port—Micro-Change® 5-pole M12 female BradConnectivity™ Ultra-Lock™, internally threaded
- 8 Port—Nano-Change® 3-pole threaded M8 female

Bus Connectors:
- Network In—Micro-Change 5-pole M12 male
- Network Out— Micro-Change 5-pole M12 female

Auxiliary Power Connector:
- Power In—Micro-Change 5-pole M12 male

Address Settings: 0 to 63 using rotary switches or software

Input Type: Compatible with dry contact and PNP or NPN 3-wire switches; electronic short circuit protection.

Housing Dimensions:
- 30 x 175 x 20mm (1.18 x 6.89 x 0.78")

Mounting Dimensions:
- 23mm (0.91") horizontal on centers
- 168mm (6.61") vertical on centers
- Center hole

Storage Temperature: -25 to 85˚ C (-13 to 185˚ F)

RH Operating: 5 to 95% non-condensing

EMC: IEC 61000-6-2

Protection: IP67 according to IEC 60529

Vibration: IEC 60068-2-6 conformance

Shock: 10G, 11ms, 3 axis

Electrical

External Power Requirements:
- Module and Input Power—24V DC (input devices plus module)
- Output Power—24V DC (13 to 28V), 4.0A max. per module

Baud Rate Settings: Auto baud—125, 250, 500 KBaud

Input Delay: 3 ms

Input Device Supply: 140 mA per port at 25˚ C

Output Load Current:
- 1.0A max. per channel; electronic short circuit protection

Maximum Switching Frequency: 200 Hz

Classic

Physical

I/O Configurations:
- 16 inputs
- 8 inputs/8 outputs

I/O Connectors:
- Micro-Change® 5-pole M12 female BradConnectivity™ Ultra-Lock™, internally threaded

Bus Connectors:
- Network In—Mini-Change® 5-pole male
- Network Out—5-pole female

Auxiliary Power Connector:
- Power In—Mini-Change 4-pole male
- Power Out—4-pole female

Address Settings: 0 to 63 using rotary switches or software

Input Type:
- Compatible with dry contact and PNP or NPN 3-wire switches; electronic short circuit protection

Housing Dimensions:
- 60 x 220 x 20mm (2.36 x 8.66 x 0.78")

Mounting Dimensions:
- 37.5mm (1.48") horizontal on centers
- 210mm (8.27") vertical on centers Center hole

Storage Temperature: -20 to 85˚ C (-4 to 185˚ F)

RH Operating: 5 to 95% non-condensing

EMC: IEC 61000-6-2

Protection: IP67 according to IEC 60529

Vibration: IEC 60068-2-6 conformance

Shock: 10G, 11ms, 3 axis

Electrical

External Power Requirements:
- Module and Input Power—24V DC (input devices plus module)
- Output Power—24V DC (13 to 28V), 8.0A max. per module

Baud Rate Settings: Auto baud—125, 250, 500 KBaud

Input Device Supply: 140 mA per port at 25˚ C

Output Load Current: 1.0A max. per channel; electronic short circuit protection

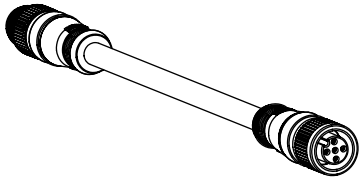
Maximum Switching Frequency: 200 Hz

	Old Part No.	Order No.	Option	Description
Compact (30mm)	TBDDN-480N-80U	112092-0018	8 input	DeviceNet Slave, Compact Digital, 4-port, M12 Ultra-Lock, 8 input
	TBDDN-480P-80U	112092-0007	8 input	DeviceNet Slave, Compact Digital, 4-port, M12 Ultra-Lock, 8 input
	TBDDN-444N-88U	112092-5004	4 input, 4 output	DeviceNet Slave, Compact Digital, 4-port, M12 Ultra-Lock, 4 input , 4 output
	TBDDN-444P-88U	112092-0006	4 input, 4 output	DeviceNet Slave, Compact Digital, 4-port, M12 Ultra-Lock, 4 input , 4 output
	TBDDN-880N-804	112092-0022	8 input	DeviceNet Slave, Compact Digital, 8-port, M8, 8 input
	TBDDN-880P-804	112092-0008	8 input	DeviceNet Slave, Compact Digital, 8-port, M8, 8 input
Classic (60mm)	TCDDN-8D0P-10U	112092-0010	16 input	DeviceNet Slave, Classic Digital, 8-port, M12 Ultra-Lock, 16 input
	TCDDN-8D0N-10U	112092-0019	16 input	DeviceNet Slave, Classic Digital, 8-port, M12 Ultra-Lock, 16 input
	TCDDN-888P-11U	112092-0009	8 input 8 output	DeviceNet Slave, Classic Digital, 8-port, M12 Ultra-Lock, 8 input / 8 output
	TCDDN-888N-11U	112092-0020	8 input 8 output	DeviceNet Slave, Classic Digital, 8-port, M12 Ultra-Lock, 8 input / 8 output

* DeviceNet is a trademark of Open DeviceNet Vendor Association (ODVA)

DeviceNet* Micro-Change® (M12) Drop Cordset

130027/130028
Single and Double-Ended



Features and Benefits

- Rugged, IP68 rated connectors for continued connection integrity in industrial environments
- Variety of cable types, cable exit, form factor, coupling nut and length options for maximum flexibility
- Connect tees or ports on drop distribution boxes to active devices
- Micro-Change (M12) to Micro-Change (M12) cordsets or Micro-Change (M12) to Nano-Change® (M8) cordsets
- Single and double-ended
- Straight and 90˚
- Standard and application-specific lengths

Thin Standard Specifications

Overall
Rating: 300V 80˚C
Outer Jacket: PVC
Inner Insulation: Power—Semirigid PVC
Data—PE foam
Construction: Two shielded pairs, #22 Tin-Copper drain wire between pairs
Cable Jacket Color: Gray

Power Pair
Wire: Two #22 individually Tinned stranded Copper
Shielding: Aluminum foil shield, 25% overlap
DC Resistance: 16.5 ohms/1000 ft max. at 20˚ C max.
Current: 4.0A
Color Code: Red/black

Data Pair
Wire: Two #22 individually Tinned stranded Copper
Shielding: Aluminum foil shield, 25% overlap
DC Resistance: 16.5 ohms/1000 ft max. at 20˚ C
Velocity of Propogation: 75%
Capacitance: 11 pF/ft
Color Code: White/blue

Reference Information
UL: CL2, AWM 2464
CSA: FT4 Rated

Thin High Flex Specifications

Overall
Rating: 300V 80˚C
Outer Jacket: PVC
Inner Insulation: Power—Semirigid PVC
Data—PE foam
Flexure: Rolling Flex > 1 million cycles at 10x bend radius
Construction: Two foil shielded pairs, #26 Tin-Copper drains between pairs
Cable Jacket Color: Gray

Power Pair
Wire: Two #22 individually Tinned stranded Copper
Shielding: Aluminum outside/polyester tape, 25% overlap
DC Resistance: 17.5 ohms/1000 ft max. at 20˚C
Current: 4.0A max.
Color Code: Red/black

Data Pair
Wire: Two #24 individually Tinned stranded Copper
Shielding: Aluminum outside/polyester tape, 25% overlap
DC Resistance: 28 ohms/1000 ft max. at 20˚C
Velocity of Propogation: 75%
Capacitance: 12 pF/ft
Color Code: White/blue

Reference Information
UL : CL3 AWM 20626, Flame UL 1581
CSA : AWM: I/II A/B, 80˚C, 300V ft1

Thin Standard Cable

Cable Length (m)	Single-Ended						Double-Ended					
	Male Straight		Male 90°		Female 90°		Female Straight/Male Straight		Female 90°/Male Straight		Female 90°/Male 90°	
	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
1.0	DND02A-M010	130027-0012	DND03A-M010	130027-0037	DND30A-M010	130027-0075	DND22A-M010	130028-0028	DND32A-M010	130028-0085	DND33A-M010	130028-0104
3.0	DND02A-M030	130027-0015	DND03A-M030	130027-0040	DND30A-M030	130027-0077	DND22A-M030	130028-0037	DND32A-M030	130028-0089	DND33A-M030	130028-0110
5.0	DND02A-M050	130027-0017	DND03A-M050	130027-0041	DND30A-M050	130027-0079	DND22A-M050	130028-0042	DND32A-M050	130028-0091	DND33A-M050	130028-0113

Thin High Flex

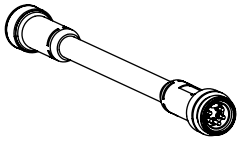
Cable Length (m)	Single-Ended						Double-Ended					
	Male Straight		Male 90°		Female 90°		Female Straight/Male Straight		Female 90°/Male Straight		Female 90°/Male 90°	
	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
1.0	DNDF02A-M010	130027-0103	DNDF03A-M010	130027-0115	DNDF30A-M010	130027-0161	DNDF22A-M010	130028-0132	DNDF32A-M010	130028-0172	DNDF33A-M010	130028-0183
3.0	DNDF02A-M030	130027-0159	DNDF03A-M030	130027-0117	DNDF30A-M030	130027-0162	DNDF22A-M030	130028-0140	DNDF32A-M030	130028-0244	DNDF33A-M030	130028-0249
5.0	DNDF02A-M050	130027-0106	DNDF03A-M050	130027-0160	DNDF30A-M050	130027-0130	DNDF22A-M050	130028-0143	DNDF32A-M050	130028-0178	DNDF33A-M050	130028-0185

* DeviceNet is a trademark of Open DeviceNet Vendor Association (ODVA)

DeviceNet* Mini-Change® Trunk Cordset

130024/130025

Single and Double-Ended



Features and Benefits

- Plug-and-play connection between DeviceNet nodes
- Mini-Change® cordsets
- Single and double-ended
- Straight and 90˚
- Standard and application-specific lengths
- Rugged, IP-68 rated connectors for continual connection integrity in industrial environments
- Phosphor-bronze contacts for greater reliability
- Variety of cable types, cable exit, coupling nut and length options for maximum flexibility

Reference Information

UL File No.: E152210
CSA File No.: LR6837

Thick Standard

Overall

Rating: 300V, 80˚C
Outer Jacket: Gray PVC
Outside Diameter: 0.48" (12.10mm)
Inner Insulation:
Power—PVC with Nylon skin
Data—PE foam
Construction: Two shielded pairs with #18 AWG (19 by #30) drain wire between pairs

Power Pair

Wire: Two #15 AWG (19 by #28) stranded Tinned Copper
Shielding: Aluminum outside/polyester tape 25% overlap
DC Resistance: 3.6 ohms/1000 ft max. at 20˚C
Current: 8.0A max.
Color Code: Red/black

Data Pair

Wire: Two #18 AWG (19 by #28) stranded Tinned Copper
Shielding: Aluminum outside/polyester tape 25% overlap
DC Resistance: 6.92 ohms/1000 ft max. at 20˚C
Capacitance: 12pF/ft
Color Code: White/blue

Environmental

Protection: IP68, NEMA 6P
Ambient Operating Temp: -4 to 176˚ F (-20 to 80˚ C)

Reference Information

UL File No.: UL type CL2, VL 1581 flame resistance
CSA File No.: CSA AWM I/II and A/B FT4

Thick Flex-Rated

Overall

Rating: 300V, 80˚C
Outer Jacket: TPE
Outside Diameter: 0.48" (12.10mm)
Inner Insulation:
Power—PVC with Nylon skin
Data—PE foam
Flexure: Rolling Flex >1.40m cycles at 10x Bend Radius
Construction: Two Shielded Pairs with #18 (19 by #30) drain wires between pairs

Power Pair

Wire: Two #15AWG (19 by #28) individually Tinned Copper
Shielding: Aluminum outside/polyester tape 25% overlap
DC Resistance: 3.6 ohms/1000 ft max. at 20˚C
Current: 8.0A max.
Color Code: Red/black

Data Pair

Wire: Two #18AWG (19 by #30) individually Tinned Copper
Shielding: Aluminum outside/polyester tape 25% overlap
DC Resistance: 6.9 ohms/1000 ft max. at 20˚C
Capacitance: 12pF/ft
Color Code: White/blue

Reference Information

UL: CL3; AWM 20626, UL 1581
CSA: AWM I/II A/B 80˚C 300V Ft1

Mid Cable

Overall

Rating: 300V, 80˚C
Outer Jacket: Gray PVC
Outside Diameter: 0.330" (8.38mm)
Inner Insulation:
Power—PVC
Data—PE foam
Construction: Two shielded pairs, #20 AWG Tin Copper drain wire between pair

Power Pair

Wire: Two #16 AWG (65 by 34) Tinned Copper
Shielding: Aluminum outside/polyester tape 25% overlap
Velocity of Propogation: 75%
DC Resistance: 4.1 ohms/1000 ft max. at 20˚C
Current: 8.0A max.
Color Code: Red/black

Data Pair

Wire: Two #20 AWG (19 by #36) stranded Copper
Shielding: Aluminum outside/polyester tape 25% overlap
DC Resistance: 10.4 ohms/1000 ft max. at 20˚C
Capacitance: 12.35pF/ft
Color Code: White/blue
Cable Jacket Color: Gray

Reference Information

UL File No.: Style 1569
CSA File No.: I/II A/B 300V Ft1, 80˚C

Thick Standard Cable

Cable Length (m)	Single-Ended								Double-Ended (Female/Male)					
	Male Straight		Male 90°		Female Straight		Female 90°		Straight/Straight		90°/Straight		90°/90°	
	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
1.0	DN01A-M010	130024-0028	DN09A-M010	130024-0059	DN10A-M010	130024-0073	DN90A-M010	130024-0133	DN11A-M010	130025-0054	DN91A-M010	130025-0173	DN99A-M010	130025-0197
3.0	DN01A-M030	130024-0032	DN09A-M030	130024-0061	DN10A-M030	130024-0078	DN90A-M030	130024-0136	DN11A-M030	130025-0067	DN91A-M030	130025-0177	DN99A-M030	130025-0200
5.0	DN01A-M050	130024-0034	DN09A-M050	130024-0064	DN10A-M050	130024-0080	DN90A-M050	130024-0137	DN11A-M050	130025-0073	DN91A-M050	130025-0179	DN99A-M050	130025-0202

Thick Flex-Rated Cable

Cable Length (m)	Single-Ended								Double-Ended (Female/Male)					
	Male Straight		Male 90°		Female Straight		Female 90°		Straight/Straight		90°/Straight		90°/90°	
	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
1.0	DNF01A-M010	130024-0265	DNF09A-M010	130025-0538	DNF10A-M010	130024-0337	DNF90A-M010	130024-0341	DNF11A-M010	130025-0408	DNF91A-M010	130025-0468	DNF99A-M010	130025-0482
3.0	DNF01A-M030	130024-0267	DNF09A-M030	130025-0539	DNF10A-M030	130024-0338	DNF90A-M030	130024-0342	DNF11A-M030	130025-0412	DNF91A-M030	130025-0470	DNF99A-M030	130025-0542
5.0	DNF01A-M050	130024-0269	DNF09A-M050	130025-0540	DNF10A-M050	130024-0287	DNF90A-M050	130024-0343	DNF11A-M050	130025-0415	DNF91A-M050	130025-0472	DNF99A-M050	130025-0486

Mid Cable

Cable Length (m)	Single-Ended								Double-Ended (Female/Male)					
	Male Straight		Male 90°		Female Straight		Female 90°		Straight/Straight		90°/Straight		90°/90°	
	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
1.0	DNB01A-M010	130024-0146	DNB09A-M010	130024-0163	DNB10A-M010	130024-0169	DNB90A-M010	130024-0178	DNB11A-M010	130025-0233	DNB91A-M010	130025-0259	DNB99A-M010	130025-0267
3.0	DNB01A-M030	130024-0149	DNB09A-M030	130024-0336	DNB10A-M030	130024-0339	DNB90A-M030	130024-0344	DNB11A-M030	130025-0235	DNB91A-M030	130025-0541	DNB99A-M030	130025-0270
5.0	DNB01A-M050	130024-0151	DNB09A-M050	130024-0165	DNB10A-M050	130024-0340	DNB90A-M050	130024-0180	DNB11A-M050	130025-0237	DNB91A-M050	130025-0261	DNB99A-M050	130025-0271

Thin Standard Cable

Cable Length (m)	Double-Ended					
	Female Straight/Male Straight		Female 90°/Male Straight		Female 90°/Male 90°	
	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
1.0	DND11A-M010	130025-0287	DND91A-M010	130025-0322	DND99A-M010	130025-0543
3.0	DND11A-M030	130025-0292	DND91A-M030	130025-0324	DND99A-M030	130025-0544
5.0	DND11A-M050	130025-0295	DND91A-M050	130025-0326	DND99A-M050	130025-0545

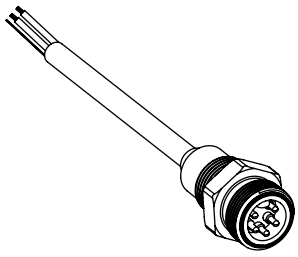
Thin High Flex Cable

Cable Length (m)	Double-Ended					
	Female Straight/Male Straight		Female 90°/Male Straight		Female 90°/Male 90°	
	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
1.0	DNDF11A-M010	130025-0502	DNDF91A-M010	130025-0546	DNDF99A-M010	130025-0513
3.0	DNDF11A-M030	130025-0504	DNDF91A-M030	130025-0547	DNDF99A-M030	130025-0333
5.0	DNDF11A-M050	130025-0508	DNDF91A-M050	130025-0548	DNDF99A-M050	130025-0515

* DeviceNet is a trademark of Open DeviceNet Vendor Association (ODVA)

DeviceNet* Receptacle

120070/130031/ 130039/130188



Features and Benefits

- Connects the external trunk line with an enclosure
- Mini-Change® receptacles with DeviceNet color rotation
- Male and female
- Front-Panel mount
- Bulkhead feed-through
- PCB-mount or cable lead
- A variety of options allows for maximum flexibility in connecting devices nodes
- Bulkhead version features rugged keyways for positive alignment of connections

Thick Media

Electrical
Voltage: 300V AC/DC
Current: Based on cable used

Mechanical
Shell (Receptacle): Gray anodized Aluminum
Shell (Bulkhead) Nickel-Brass
Gasket Material (Bulkhead): Neoprene
Thrust Washer (Bulkhead): Nylon
Locknut Material (Bulkhead): Brass alloy
Insert: PVC UL 94V
Outside Diameter: Thick—0.48" (12.10mm)
Mid—0.34" (8.60mm)
Thick-Flex—0.48" (12.20mm)

Environmental
Protection: IP67

Thin Media

Reference Information
(Except for Bulkhead)
UL File No.: E152210
CSA File No.: LR6837

Electrical
Voltage Rating: 250V AC/DC
Current: 4.0A

Mechanical
Shell: Receptacle—Andonized Aluminum
Bulkhead—Nickel over Brass
PCB—Thermoplastic
Insert: Nylon 6/6
Coupling Nut: PCB—Delrin
Gasket Material: Bulkhead—Neoprene
Lock Washer: Bulkhead—Steel Alloy
Support Bracket: Steel, Tin, Lead, coated
MB Panel Thickness: PCB—0.639 to 0.070"

Environmental
Protection: Receptacles—IP67
Bulkhead—PCB IP67

Drop Receptacle Micro-Change (M12)

PCB Mount								12" Wire Pigtail			
Male Straight		Male 90°		Female Straight		Female 90°		Male Straight		Female Straight	
Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
8R5L560005-35	120070-0243	8R5L570005-35	120070-0245	8R5L500005-35	120070-0239	8R5L510005-35	120070-0241	81612	130031-0026	81611	130031-0023

Trunk Receptacle—Front Panel Mount with Cable

Mounting Thread	Cable Length (m)	Description	Male Straight		Female Straight	
			Old Part No.	Order No.	Old Part No.	Order No.
1/2" - 14 NPT	0.50	Thick Standard Cable	DN5100-M005	130039-0297	DN5000-M005	130039-0283
	1.0		DN5100-M010	130039-0299	DN5000-M010	130039-0284
	0.50	Mid Cable	DNB5100-M005	130039-0317	DNB5000-M005	130039-0311
	1.0		DNB5100-M010	130039-0318	DNB5000-M010	130039-0312

Trunk Receptacle—Double-Ended Back Panel Mount to Mini-Change Receptacle (Female/Male)

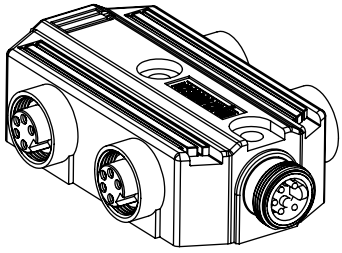
Mounting Thread	Cable Length (m)	Description	Receptacle/Straight		Receptacle/90°		Straight/Receptacle	
			Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
1/2" - 14 NPT	1.0	Thick Standard Cable	DN5210A-M010	130039-0096	DN5290A-M010	130039-0098	DN5301A-M010	130039-0101

Mounting Thread	PCB Mount				Bulkhead Feed-Through	
	Male Straight		Female Straight		Male Straight	Female Straight
	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
1/2" - 14 NPT	67-0065	130188-0033	67-0075	130188-0034	1R5030	130013-0541

* DeviceNet is a trademark of Open DeviceNet Vendor Association (ODVA)

DeviceNet* Sealed Distribution Box

130036/130037/130039



Features and Benefits

- Allows several trunk cables or drop cables with Mini-Change® style of connectors to be consolidated and can be connected to the trunk
- Eliminate the need to have numerous tees connected near a single point
- Rugged enclosure for reliable connectors in industrial environment

Thin Media

Reference Information
cCSAus File No.: LR6837

Electrical
Voltage: 120V AC/DC
Amperage: 7.0A total per unit

Mechanical
Insert: PVC
Housing: Zinc diecast with black epoxy coat
ID Label: ABS

Environmental
Protection: IP67

Thick Media

Reference Information
UL File No.: E46237
CSA File No.: LR6837

Electrical
Voltage: 120V AC/DC
Amperage: 7.0A total per unit

Mechanical
Insert: PVC
Housing: PET (Polyester)
Receptacle Housing: Zinc diecast with black epoxy coat
ID Label: ABS

Environmental
Protection: IP67

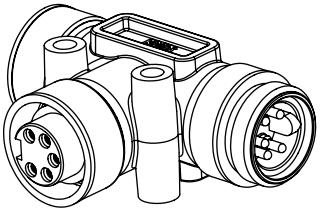
Mounting	Ports	Thick Media				Thin Media			
		Mini-Change BUS IN with Mini Ports		Mini-Change BUS IN/BUS OUT with Mini Ports		Mini-Change BUS IN with Mini Ports		Mini-Change BUS IN/BUS OUT with Mini Ports	
		Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
Side	2			DN2100	130039-0336				
	4	DN4000	130036-0005	DN4100	130036-0006	DND4000	130036-0011	DND4100	130036-0012
	6	DN6000	130036-0008	DN6100	130036-0009	DND6000	130036-0014	DND6100	130036-0015

Mounting	Ports	Thick Media					
		Mini-Change BUS IN with Micro Ports		Mini-Change BUS IN with 2 Meter Cable with Micro Ports		Mini-Change BUS IN/BUS OUT with 2 Meter Cable with Micro Ports	
		Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
Top	4	DND4200	130037-0004	DND4500-02	130037-0006	DND4300-02	130037-0005

* DeviceNet is a trademark of Open DeviceNet Vendor Association (ODVA)

DeviceNet* Tee and Splitter

130035/130039



Features and Benefits

- Phosphor bronze contacts for greatest reliability
- Variety of Mini-Change® to Micro-Change® (M12) cordset configurations for installation flexibility
- Tees enable tapping into trunk line to add drop lines or devices
- Splitters allow service to two devices through just one connection
- Power monitor tees show you what the power condition is, when an improper condition occurred and what that condition is.

Tee

Electrical

Voltage: 50V
Current: Mini-Change drop—8.0A
Micro-Change drop—3.0A
Contact Material: Phosphor Bronze Alloy
Contact Plating: Gold over Nickel Alloy

Mechanical

Connector Face: Mini-Change Drop Tee—TPE
Micro-Change Drop Tee—PCV
Molded Body: Mini-Change Drop Tee—TPE
Micro-Change Drop Tee—PCV
Coupling Nut: Zinc diecast black E-Coat
MICT555—Nickel-plated Brass

Environmental

Protection: Mini-Change—IP67
Micro-Change—IP67

Splitter

Reference Information

UL File No.: E152210
CSA File No.: LR6337

Electrical

Voltage: Micro-Change—250V AC/DC
Mini-Change—600V AC/DC
Current: Micro-Change—4.0A
Mini-Change—10A

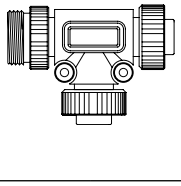
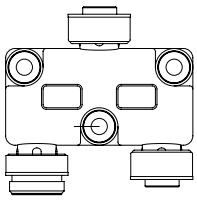
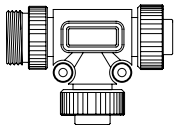
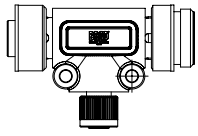
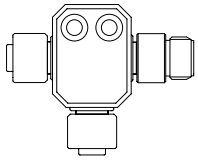
Mechanical

Connector Face: Micro-Change—Nylon 6/6
Mini-Change—PVC
Molded Body: PVC
Coupling Nut: Zinc diecast with black epoxy coat, optional stainless Steel type 303 Nickel-plated Brass
Outside Diameter: Thin—0.27" (6.9mm)
Thin-Flex—0.30" (12.2mm)

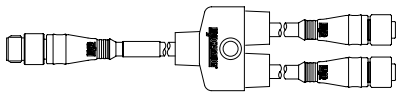
Environmental

Protection: IP67

Tee

Configuration										
	Standard Bus Drop with Power Diagnostics		Bus Drop Wye		Mini-Change Drop		Bus Drop Micro		Micro-Bus Drop	
	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
Right	DN3020-PM-1	130035-0061	DN3200	130035-0071	DN3020	130035-0057			MICT555	130035-0090
Back							DND3020	130039-0341		
Left	DN3020-PM-3	130035-0060								

Splitter



Male-Female/Female	
Old Part No.	Order No.
DNYG001	130039-0396

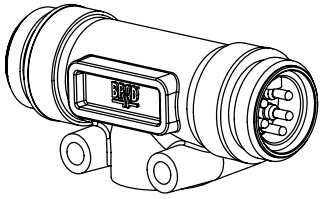
Tee Gender Configuration Chart

Old Part No.	Order No.	Left Trunk Connection	Right Trunk Connection	Drop Connection
DN3020PM-1	130035-0060	Male	Female	Female
DN3020PM-3	130035-0061	Female	Male	
DN3200	130035-0071			
DND3020	130035-0057			
MICT555	130035-0090			

* DeviceNet is a trademark of Open DeviceNet Vendor Association (ODVA)

DeviceNet* Trunk Gender Changer

130035/130039
Mini-Change® Connection



Features and Benefits
- Phosphor bronze contacts for greatest reliability
- Change connection interface from male to female or vice-versa
- Female-to-Male, Straight or 90˚ versions
- Right angle version specially designed for tight spaces

Electrical
Voltage: 50V
Current: 8.0A
Contact Material: Phosphor Bronze alloy
Contact Plating: Gold over Nickel

Mechanical
Connector Face: Thermoplastic Elastomer
Molded Body: Thermoplastic Elastomer
Coupling Nut: Zinc diecast, black E-Coat—Stainless Steel, Nickel-plated Brass optional

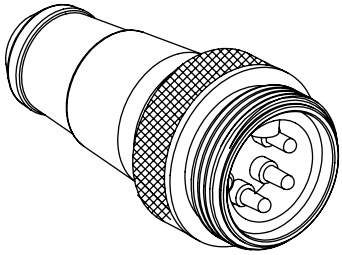
Environmental
Protection: IP67

Male Straight/Male		Female Straight/Female		Female/Male 90°	
Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
115060A	130035-0015	115010A	130039-0351	115032A	130035-0013

* DeviceNet is a trademark of Open DeviceNet Vendor Association (ODVA)

DeviceNet* Termination Resistor

130039



Features and Benefits
- Phosphor bronze contacts for greatest reliability
- Diagnostics versions indicate power connection and correct polarity
- Used to terminate end of data line
- Trunk and drop versions
- LED diagnostic versions

Electrical
Voltage: 50V
Current: Mini-Change®—8.0A
Micro-Change®—4.0A
Contact Material: Phosphor Bronze Alloy
Contact Plating: Gold over Copper Alloy
LED: Green—Proper polarity
Red—Improper polarity

Mechanical
Connector Face: Mini-Change: PVC
Micro-Change: Nylon
Molded Body: Diagnostic—Clear PVC
Standard—Gray PVC
Coupling Nut: Zinc diecast, black E-Coat optional
302 stainless

Environmental
Protection: IP67

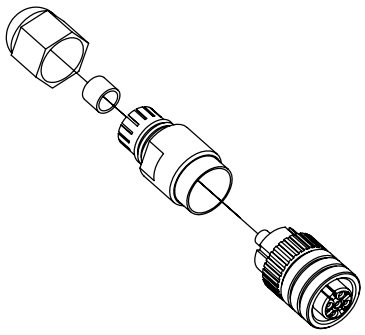
Option	Trunk (Mini-Change Connection)				Drop (Micro-Change (M12) Connection)			
	Male		Female		Male		Female	
	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
Standard	DN100	130039-0370	DN150	130039-0376	DND100	130039-0382	DND150	130039-0385
with LED	DN100L	130039-0371	DN150L	130039-0072				
Jumpered					DND101	130039-0125	DND151	130039-0386

Bus Extender	
Old Part No.	Order No.
DNETEXT-C	130039-0389

* DeviceNet is a trademark of Open DeviceNet Vendor Association (ODVA)

DeviceNet* Mini-Change® and Micro-Change® (M12) Field Attachable Connector

130034



Features and Benefits

- Accepts a wide range of DeviceNet cables for maximum installation flexibility
- Field termination for specific length or repair
- Internal and external threads
- Color-coded screw terminators make for error free field installation

Mini-Change® DeviceNet Field Attachable

Reference Information
CSA File No.: LR6837

Electrical
Voltage: 600V AC/DC
Current: 8.0A

Mechanical
Connector Face: Polyurethane
Connector Body: Polyamide Pag
Contact: Gold-plated Brass
Coupling Nut: Nickel-plated Brass
Grommet: Neoprene
Cable Range OD: 0.20-0.48" (5.0-12.0mm)
Acceptable Cable Types: Thick, thin, mid
Acceptable Wire Gauges: #24 AWG (0.25mm^2) to #15 AWG (2.0mm^2)
Color Coding: Per ODVA Standards

Environmental
Protection: IP67

Micro-Change® (M12) DeviceNet Field Attachable

Reference Information
CSA File No.: LR6835

Electrical
Voltage Rating: 36V DC
Current: 4.0A

Mechanical
Connector Face: Polyamide
Molded Body: Polyamide
Contact: Silver-plated Brass
Coupling Nut: Nickle-plated Brass
Grommet: Nitrite rubber
Cable Range OD: 0.16 to 32" OD (4.1 to 8.1mm)
Acceptable Cable Types: Thin, Thin-Flex, Thin-600V
Color Coding: Per DNET standards

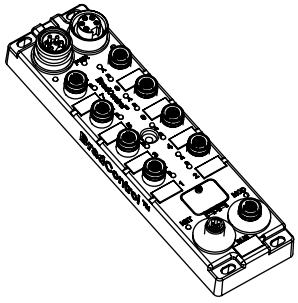
Environmental
Protection: IP67

Trunk (Mini-Change® Connection)				Drop (Micro-Change® (M12) Connection)			
Female Straight		Male Straight		Female Straight		Male Straight	
Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
1A5000-34DN	130034-0005	1A5006-34DN	130034-0006	8A5000-32DN	130034-0007	8A5006-32DN	130034-0008

* DeviceNet is a trademark of Open DeviceNet Vendor Association (ODVA)

PROFIBUS I/O Module

112038



Features and Benefits

- Accepts both M12 threaded and Ultra-Lock®
- Compact
  - 30mm wide package size
  - 4 ports, M12 Ultra-Lock technology
  - Speed: 9.6 Kbps to 12 Mbps
  - Slave DP-V0
- Classic
  - 60mm wide package size
  - 8 ports, M12 Ultra-Lock technology
  - Speed: 9.6 Kbps to 12 Mbps
  - Slave DP-V0

Reference

EMC: IEC 61000-6-2
Protection: IEC IP67 according to IEC 60529
Vibration: IEC 60068-2-6 conformance
Approvals: CE, UL, CUL and PNO certification

Compact

Physical

I/O Configurations:
8 input
4 inputs/4 outputs
8 outputs
6 inputs/2 outputs
I/O Connectors:
5-pole female M12 BradConnectivity™ Ultra-Lock or 3-pole female threaded M8 connectors
Bus Connectors:
Bus in: Male reverse keyway M12 5-pole, B-coded
Bus out: Female reverse keyway M12 5-pole, B-coded BradConnectivity Ultra-Lock
Power Connectors:
Power in: Male Micro-Change® M12 5-pole
Address Settings:
1-99 by rotary switches;
1-126 by set_slave_address command
Input Type:
Dry contact, PNP or NPN
Housing Dimensions:
30 x 175 x 20mm (1.18 x 6.89 x 0.78")
Mounting Dimensions:
23mm (0.91") horizontal on centers,
168mm (6.61") vertical centers
Storage Temperature: -25 to 90° C (-13 to 194° F)
RH Operating: 5 to 95% non-condensing
Shock: 10G, 11ms, 3 axis

Electrical

External Power Requirements:
Module and input power: 24V DC, device current and module Output power: 24V DC (13 to 28V), 4.0A max. per module
Baud Rate Settings: Auto baud, all Profibus® baud rates up to 12 MBaud
Input Delay: 3ms
Input Device Supply: 140mA per port at 25° C
Output Load Current:
Sourcing, 1.4A per channel max., 4.0A per module max.
Input Signal Voltage: "0": -2 to 7V/ "1": 9 to 30V
Output Voltage: Auxiliary power value: 1V

Classic

Physical

I/O Configurations:
16 inputs
12 inputs/4 outputs
14 inputs/2 outputs
8 inputs/8 outputs
5-pole female M12 BradConnectivity Ultra-Lock allows 2 input or 2 output channels per connector
Bus Connectors:
Bus in: Male reverse-key M12 5-pole, B-coded
Bus out: Female reverse-key M12 5-pole, B-coded
Power Connectors:
Power in: Male Mini-Change® 5-pole
Power out: Female Mini-Change 5-pole
Address Settings:
1-99 by rotary switches (0 = factory default of 126);
1-126 by set_slave_address command
Input Type:
Compatible with dry contact and PNP or NPN 3-wire switches; electronic short circuit protection
Housing Dimensions:
60 x 220 x 20mm (2.36 x 8.66 x 0.78")
Mounting Dimensions:
37.5mm (1.48") horizontal on centers,
210mm (8.27") vertical on centers

Mechanical

Maximum Switching Frequency: 200 Hz

Electrical

External Power Requirements:
Module and input power: 24V DC, device current and module
Output power: 24V DC (13 to 28V), 8.0A max. per module
Baud Rate Settings: Auto baud, all Profibus® baud rates up to 12 MBaud
Input Delay: 3ms
Input Device Supply: 140mA per port at 25° C
Output Load Current:
2.0A per channel max., electronic short circuit protection
Input Signal Voltage: "0": -2 to 5V/ "1": 10 to 28V
Output Voltage: Supply value less 1V

LED Indicators

Electrical

Output Power (O):
Green—External supply present
Input/Output:
Compact—4 port: 1A to 4B
8 port: 1 to 8
Green: input/output on
Red: input/output fault
Classic—M12: 1A to 8B
Green: input/output on
Red: input/output fault

Physical

Profibus Network Status (NET):
Green—Running
Red—Device not configured
I/O Module Diagnostics:
Off—No fault
Red—Fault
Module and Input Power (I):
Green—External supply present

Compact Threaded and Ultra-Lock (M12) Connection

Ports	Old Part No.	Order No.	Input Interface	Description
4	TBDPB-480N-B8U	112038-0009	NPN	8 input
	TBDPB-480P-B8U	112038-0011	PNP	
	TBDPB-462N-B8U	112038-0007	NPN	6 input/2 output
	TBDPB-462P-B8U	112038-0008	PNP	
	TBDPB-444N-B8U	112038-0005	NPN	4 input/4 output
	TBDPB-444P-B8U	112038-0006	PNP	
	TBDPB-408P-B8U	112038-0003	PNP	8 output

Compact Threaded and Ultra-Lock (M8) Connection

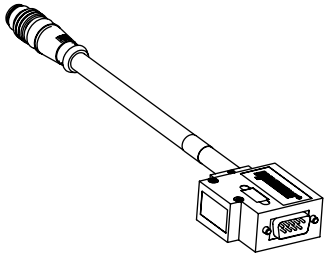
Ports	Old Part No.	Order No.	Input Interface	Description
8	TBDPB-880N-B84	112038-0019	NPN	8 input
	TBDPB-880P-B84	112038-0021	PNP	
	TBDPB-862N-B84	112038-0017	NPN	6 input/2 output
	TBDPB-862P-B84	112038-0018	PNP	
	TBDPB-844N-B84	112038-0015	NPN	4 input/4 output
	TBDPB-844P-B84	112038-0016	PNP	
	TBDPB-808P-B84	112038-0014	PNP	8 output

Classic Threaded and Ultra-Lock (M12) Connection

Ports	Old Part No.	Order No.	Input Interface	Description
8	TCDPB-8D0N-B1U	112038-0030	NPN	16 input
	TCDPB-8D0P-B1U	112038-0031	PNP	
	TCDPB-8C2N-B1U	112038-0028	NPN	14 input/2 output
	TCDPB-8C2P-B1U	112038-0029	PNP	
	TCDPB-8B4N-B1U	112038-0026	NPN	12 input/4 output
	TCDPB-8B4P-B1U	112038-0027	PNP	
	TCDPB-888N-B1U	112038-0024	NPN	8 input/8 output
	TCDPB-888P-B1U	112038-0025	PNP	

PROFIBUS Double-Ended and D-Sub Cordset

120098



Features and Benefits (Double-Ended Cordset)

- Double ended straight and 90˚
- Used in a variety of configurations where a complete daisy-chain plug-and-play solution is desired

Features and Benefits (D-Sub Cordset)

- Shielded D-Sub connector maintains signal integrity in noisy environments
- D-Sub includes termination switch for field installation flexibility
- Plug and play connection between PROFIBUS interface cards and modules
- D-Sub to single or dual ended M12
- Horizontal, vertical, straight or 90˚ configurations
- Standard and application specific lengths

Physical

Micro-Change Connector
Connector Face: Nylon 6/6
Molded Body: PUR
Coupling Nut: Nickel-plated Brass (360˚ Shielded)

9-pin D-Sub Connector
Material: ABS

Environmental

Micro-Change Connector
Protection: IP67, NEMA 6

9-pin D-Sub Connector
Protection: IP40

Cable

Outside Diameter: 8 ± 0.2mm

Cable Construction

Jacket Material: PUR
Inner Material Insulation: PE insulation
Shield Type: PETP/AV foil, Tinned Copper braid 65%
Conductor: Twisted pair 24 AWG

Cable Flex Information

Torsion: Survived more than 2 million cycles at 360˚ over 1m
C-Track: Survived more than 3 million cycles at acceleration of 10m/s^2 and process speed of 5m/s
Bend Radius: 7.5 x cable diameter (static)

Electrical

Voltage: 250V AC/DC
Current: 4A

D-Sub (9-pin) to D-Sub (9-pin)

Configuration	Horizontal		Vertical		Single-Ended	
	Old Part Number	Order Number	Old Part Number	Order Number	Old Part Number	Order Number
Horizontal	MM3S60PP4M010	120098-0198	MM3S62PP4M010	120098-0200	M03S06PP4M010	120098-0202
	MM3S60PP4M050	120098-0118	MM3S62PP4M050	120098-0201	M03S06PP4M050	120098-0124
Vertical	MP3S62PP4M010	120098-0199				
	MP3S62PP4M050	120098-0153				
Vertical with Programming Port					P03S07PP4M010	120098-0203
					P03S07PP4M050	120098-0224

D-Sub (9-pin) to Dual D-Sub (9-pin)

Configuration	Horizontal		Vertical		Horizontal/Vertical	
	Old Part Number	Order Number	Old Part Number	Order Number	Old Part Number	Order Number
Horizontal	MM3G60PP4M010	120098-0204	MM3G61PP4M010	120098-0207	MM3G70PP4M010	120098-0211
	MM3G60PP4M050	120098-0205	MM3G61PP4M050	120098-0208	MM3G70PP4M050	120098-0212
Vertical with Programming Port	MP3G62PP4M010	120098-0206	MP3G63PP4M010	120098-0209	MP3G72PP4M010	120098-0213
	MP3G62PP4M050	120098-0154	MP3G63PP4M050	120098-0210	MP3G72PP4M050	120098-0214

D-Sub (9-pin) to Micro-Change® (M12) Cordsets

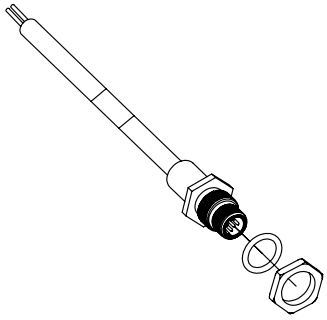
Single Reverse Keyway (end of segment) Module Connection									
Configuration	Cable Length (m)	Male Straight		Male 90˚		Female Straight		Female 90˚	
		Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
Horizontal	1.0	BM5S60PP4M010	120098-0062	BM5S61PP4M010	120098-0223	BM5S30PP4M010	120098-0155	BM5S31PP4M010	120098-0184
	5.0	BM5S60PP4M050	120098-0064	BM5S61PP4M050	120098-0157	BM5S30PP4M050	120098-0055	BM5S31PP4M050	120098-0185
Vertical with Programming Port	1.0	BP5S62PP4M010	120098-0079	BP5S63PP4M010	120098-0181	BP5S32PP4M010	120098-0183	BP5S33PP4M010	120098-0077
	5.0	BP5S62PP4M050	120098-0081	BP5S63PP4M050	120098-0182	BP5S32PP4M050	120098-0075	BP5S33PP4M050	120098-0161

D-Sub (9-pin) to Dual Micro-Change® (M12) Cordsets

Dual Reverse Keyway (Daisy chain) Module Connection											
Configuration	Cable Length (m)	Male Straight		Male 90˚		Female Straight		Female 90˚		Male Straight/Female Straight	
		Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
Horizontal	1.0	BM5G60PP4M010	120098-0150	BM5G61PP4M010	120098-0151	BM5G30PP4M010	120098-0190	BM5G31PP4M010	120098-0194	BM5G70PP4M010	120098-0048
	5.0	BM5G60PP4M050	120098-0045	BM5G61PP4M050	120098-0187	BM5G30PP4M050	120098-0191	BM5G31PP4M050	120098-0195	BM5G70PP4M050	120098-0180
Vertical	1.0	BM5G62PP4M010	120098-0186	BM5G63PP4M010	120098-0188	BM5G32PP4M010	120098-0192	BM5G33PP4M010	120098-0196	BM5G72PP4M010	120098-0051
	5.0	BM5G62PP4M050	120098-0047	BM5G63PP4M050	120098-0189	BM5G32PP4M050	120098-0193	BM5G33PP4M050	120098-0197	BM5G72PP4M050	120098-0053

PROFIBUS Receptacle

120099



Features and Benefits

- Used in control panels and junction boxes
- Epoxy potted for rugged industrial environments
- Male and female configurations
- Connects the external bus with an enclosure
- Front panel or back panel mount
- Bulkhead feed-through
- Wire or cable lead

Electrical

Voltage: 250V AC/DC
Current: 4.0A

Mechanical

Shell: Nickel-Plated Brass
Insert: Nylon 6/6
Conductors: Receptacles—#22 AWG PVC
Bulkhead Feed-Through—Solid Phosphor Bronze
O-Ring: Nitrile rubber

Environmental

Protection: IP67

Cable Construction

Jacket Material: PUR
Inner Material Insulation: PE insulation
Shield Type: PETP/AV foil, Tinned Copper braid 65%
Conductor: Twisted pair 24 AWG

Cable Flex Information

Torsion: Survived more than 2 million cycles at 360° over 1m
C-Track: Survived more than 3 million cycles at acceleration of 10m/s^2 and process speed up to 5m/s
Bend Radius: 7.5 x cable diameter (static)

Cable

Outside Diameter: 8 ± 0.2mm

Data Line Micro-Change® (M12)

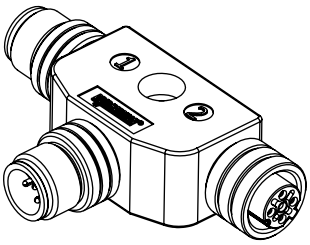
Mounting Style	Cable Length (m)	Male Straight		Female Straight	
		Old Part No.	Order No.	Old Part No.	Order No.
Back Panel	1.0	BR5U76PP4M0103	120099-0013	BR5U70PP4M0103	120099-0005
	5.0	BR5U76PP4M0503	120099-0019	BR5U70PP4M0503	120099-0010

Trunk

Mounting Style	Wire Length	Male Straight		Female Straight		Horizontal/Vertical	
		Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
Front Panel	3"	81688-030	120099-0025	81689-030	120099-0024	BR5L30	120099-0001

PROFIBUS Terminator and Tee

120101/120102



Features and Benefits

- Shielded to reduce RFI/EMI and improve signal integrity
- Male reverse key Micro-Change® terminator
- M12 threads
- Provides quick disconnection of bus line
- Allows disconnection of node without shutting down the network
- Used with remote activity I/O modules

Electrical

Voltage: Data Line Tee—30V AC/36V DC
Terminators—250V AC/DC
Current: 4A

Mechanical

Connector Face: Nylon 6/6
Molded Body: PVC
O-Ring: Data Line Tee—Viton
Terminators—Nitrile number
Coupling Nuts: Nickel-plated Brass
Shielding Sleeves: Nickel-plated Brass

Environmental

Protection: Data Line Tee—IP67 (IEC 605290)
Terminators—IP67

General

Coupling nuts, pin 5 and PCB all connected to provide full shielding; Reverse key for Profibus circuitry includes line balancing inductors

Data Line Micro-Change® (M12) Tee

Old Part No.	Order No.
PDTS01	120101-0002

Micro-Change (M12) Terminator

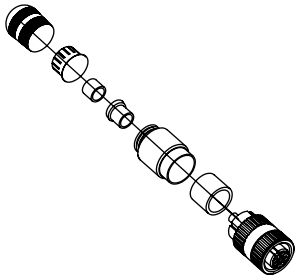
Old Part No.	Order No.
B05S06	120102-0002

Tee Gender Configuration Chart

Male	Female	Male
Bus in	Bus Out	Drop Bus

PROFIBUS
Field-Attachable Connector

120100/120103



Features and Benefits

- Shielded to reduce RFI/EMI and improve signal integrity
- D-Sub IDC with or without built-in diagnostics
- Male and female configurations
- Field termination for specific length or repair
- Easy field installation of quick-disconnect design
- D-Sub horizontal or vertical

Mirco-Change® (M12)

Electrical

Voltage: 250V AC/DC
Current: 4.0A

Mechanical

Connector Face: Polyamide
Body: Nickel-plated Brass
Contact: Silver-plated Brass
Coupling Nut: Nickel-plated Brass
Grommet: Nitrile rubber
Conductor Size: 22 AWG

Environmental

Protection: IP67

D-Sub

Electrical

Voltage: 30V AC/DC
Current: 4.0A

Mechanical

Housing: Diecast Zinc
Housing Material: ABS
Cable Diameter: 8.0mm
Cable Connection: IDC technology
Terminating Resistor: Yes, externally switch selectable

Environmental

Protection: IP20

Micro-Change® (M12)

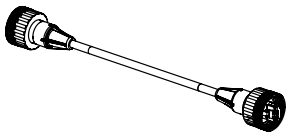
Male Straight		Female Straight	
Old Part No.	Order No.	Old Part No.	Order No.
BA5S06-32	120100-0002	BA5S00-32	120100-0001

D-Sub

	Vertical		Horizontal		45°	
	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
With Diagnostics	PA9D01-42	120103-0001	MA9D00-42	120103-5001	PA9D0B-42	120103-0003
Without Diagnostics	PA9S01-42	120103-0005				

Ethernet Cordset RJ45 Threaded

130050
Single and Double-Ended



Features and Benefits

- Overmolded threaded connectors for secure, robust IP67 connection between Ethernet nodes
- First IP67 industrial Ethernet connector
- Category 5e compliant
- Achieves IEC IP67 rated seal when mated with a RJ-Lnxx® receptacle

Unshielded Stranded PVC

Physical

Cable: Stranded
Conductors: #24 AWG stranded tinned Copper
Insulation: Polyolefin 0.037" (0.94mm) nominal diameter
Pair: 2 insulated conductors twisted together, lay lengths varied between pairs to minimize cross talk
Core: 4 pairs cabled together
Binder: Polyester tape, 20% overlay minimum
Jacket: PVC 0.025" (0.635mm) nominal thickness
Diameter: 0.220" (5.588mm) nominal
Wiring Sequence: 568B

Electrical

Cable: Stranded
Capacitance: 15 pF/FT
Velocity of Propagation: 70% nominal
Conductor DC Resistance: 9.0/100 meter max.
Impedence: 100 ±15 ohms
Delay Skew: 10 nS/100 meter typical,
25 nS/100 meter max.
TIA/EIA Rating: Category 5E

Frequency (MHz)	Attenuation (dB/100 M max.)	Next (dB min)
1	1.9	76
4	3.9	72
16	7.9	61
20	9.0	60
31.25	11.0	55
62.5	15.9	53
100	20.7	50

Shielded Solid PUR

Physical

Cable: Solid core
Conductors: #24 AWG solid bare Copper, 0.020" (0.510mm)
Insulation: 0.009" (0.229mm) of cellular polyethylene, 0.04" (1.0mm) nominal diameter
Pair: 2 insulated conductors twisted together, lay lengths varied between pairs to minimize cross talk
Core: 4 pairs cabled together
Binder: Polyester tape, 20% overlay minimum
Shield: Aluminum/polyester tape, 20% overlay minimum
Drain Wire: #24 AWG stranded (7/32") Tin-plated Copper
Jacket: Black polyurethane 0.025" (.635mm) nominal thickness
Diameter: 0.245" (6.223mm) nominal
Wiring Sequence: 568B

Electrical

Cable: Solid
Capacitance: 5.6 nF/100 meter max.
Velocity of Propagation: 72% nominal
Conductor DC Resistance: 9.38/100 meter max.
Impedence: 100 ±15 ohms
Delay Skew: 45 nS/100 meter max.
TIA/EIA Rating: Category 5E

Frequency (MHz)	Attenuation (dB/100 M max.)	Next (dB min)
1	2.0	65.3
4	4.1	56.3
10	6.5	50.3
16	8.2	47.3
20	9.3	45.8
31.25	11.7	42.9
62.5	17.0	38.4
100	22.0	35.3

Shielded Stranded PUR

Physical

Cable: Proplex™ Kevlar wrapped
Conductors: #26 AWG stranded bare copper
Insulation: Color coded HFFR, halogen free, 0.035" (0.90mm) nominal diameter
Pair: Cabled with Kevlar strength member and tape wrapped
Core: 4 pairs cabled together
Shield: Inner–Aluminum mylar,100% coverage
Outer—Tinned Copper Braid—80% coverage
Jacket: Black urethane 0.059" (1.5mm) nominal thickness
Diameter: 0.287" (7.3mm) nominal
Wiring Sequence: 568B

Electrical

Cable: Proplex Kevlar wrapped
Capacitance: 4.6 nF/100 meters
Propagation Delay: 5.2 nS/M maximum
Conductor DC Resistance: 15/100 meter max.
Impedence: 100 ±15 ohms
Delay Skew: 20 nS/100 meter typical,
25 nS/100 meter max.
TIA/EIA Rating: Category 5E

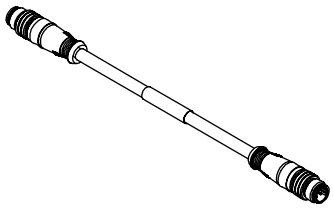
Frequency (MHz)	Attenuation (dB/100 M max.)	Next (dB min)
1	3.15	62
4	6.45	53
16	12.3	44
20	13.8	42
31.25	17.7	40
62.5	25.6	35
100	33.0	32

Cable Type	Length (m)	Single-Ended		Double-Ended			
		Industrial Male		Industrial Male/Industrial Male		Male Standard/Male Standard	
		Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
Unshielded Stranded PVC	1.0	ENQ3105M010	130050-0506	ENQ3115M010	130050-0251	ENQ3335M010	130050-0507
	5.0	ENQ3105M050	130050-0250	ENQ3115M050	130050-0255	ENQ3335M050	130050-0273
Shielded Solid PUR	1.0	ENS3105M010	130050-0408	ENS3115M010	130050-0412	ENS3335M010	130050-0503
	5.0	ENS3105M050	130050-0502	ENS3115M050	130050-0416	ENS3335M050	130050-0437
Shielded Stranded PUR (Proplex™) Kevlar Wrapped	1.0	ENP3105M010	130050-0162	ENP3115M010	130050-0170	ENP3335M010	130050-0457
	5.0	ENP3105M050	130050-0166	ENP3115M050	130050-0174	ENP3335M050	130050-0193

Micro-Change® (M12) Ethernet Cordset

130048

Single and Double-Ended



Features and Benefits

- For connecting Micro-Change (M12) Ethernet system components in harsh industrial environments
- Category 5e compliant
- IP67 rated, perfect for harsh industrial environments
- D-coded to ensure proper alignment/mating

Unshielded PVC

Mechanical

Cable Conductors: 4/24 AWG stranded tinned wire
Outside Diameter (Nom): 5.60mm
Jacket Material: Teal PVC
Inner Material Insulation: HDPE
Certification: UL CMR

Environmental

Protection: IP67

Shielded PVC

Electrical

TIA/EIA Rating: CAT5E
UL: CL2

Mechanical

Connector Face: PUR
Molded Body: Black PUR
Coupling Nut: Nickel-plated Brass
Cable Conductors: 4/24 AWG stranded tinned wire
Outside Diameter (Nom): 6.10mm
Jacket Material: Teal PVC
Inner Material Insulation: Foamed Polypropylene
Certification: UL CMR
Shield Type: Foil shield: 100% coverage, 25% min. overlap

Environmental

Protection: IP67

Shielded PUR

Mechanical

Cable Conductors: 4/22 AWG stranded tinned wire
Outside Diameter (Nom): 6.50mm
Jacket Material: Green PUR
Inner Material Insulation: FRNC
Certification: UL listed CMX
Shield Type: Foil—100% coverage
Braid—85% coverage

Environmental

Protection: IP67, sun/oil resistant

Single-Ended

Cable Type	Length (m)	Male Straight		Male 90°	
		Old Part No.	Order No.	Old Part No.	Order No.
Unshielded/Stranded Conductor/PVC Jacket	1.0	E10A00603M010	130048-0038	E10A00703M010	130048-0062
	5.0	E10A00603M050	130048-0040	E10A00703M050	130048-0064
Shielded/Stranded Conductor/PVC Jacket	1.0	E10A00610M010	130048-0046	E10A00710M010	130048-0070
	5.0	E10A00610M050	130048-0048	E10A00710M050	130048-0072
Shielded/Stranded Conductor/PUR Jacket	1.0	E10A00615M010	130048-0054	E10A00715M010	130048-0078
	5.0	E10A00615M050	130048-0056	E10A00715M050	130048-0080

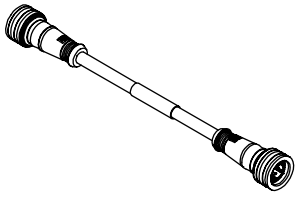
Double-Ended

Cable Type	Male Straight/Male Straight			Male Straight/Male 90°		Male 90°/Male 90°		Female Straight/ Male Staight Crossover		Female Straight/Male RJ45	
	Length (m)	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.	Old Part No.	Order No.
Unshielded/Stranded Conductor/PVC Jacket	0.2							E11B03003M002	130048-0193		
	1.0	E11A06003M010	130048-0088	E11A06203M010	130048-0137	E11A06303M010	130048-0161			E16A03003M010	130048-0197
	5.0	E11A06003M050	130048-0090	E11A06203M050	130048-0139	E11A06303M050	130048-0164			E16A03003M050	130048-0200
Shielded/Stranded Conductor/PVC Jacket	0.2							E11B03015M002	130048-0195		
	1.0	E11A06015M010	130048-0122	E11A06215M010	130048-0153	E11A06315M010	130048-0179				
	5.0	E11A06015M050	130048-0126	E11A06215M050	130048-0155	E11A06315M050	130048-0183				
Shielded/Stranded Conductor/PUR Jacket	1.0	E11A06010M010	130048-0114	E11A06210M010	130048-0145	E11A06310M010	130048-0170				
	5.0	E11A06010M050	130048-0116	E11A06210M050	130048-0147	E11A06310M050	130048-0172				

Note: Other standard lengths available. Please contact Molex.

Ultra-Lock® (M12) Ethernet Cordset

120108/130048
Double-Ended



Features and Benefits

- All the same benefits as the threaded Ethernet Cordsets, but with the patented Ultra-Lock connection system connectors
- Plug and play solution for quick field installation
- Superior performance, higher reliability and reduce installation time

Unshielded PVC

Mechanical

Cable Conductors: 4/24 AWG stranded tinned wire
Outside Diameter (Nom): 5.60mm
Jacket Material: Teal PVC
Inner Material Insulation: HDPE
Certification: UL CMR

Environmental

Protection: IP67

Shielded PVC

Electrical

TIA/EIA Rating: CAT5E
UL: CL2

Mechanical

Connector Face: PUR
Molded Body: Black PUR
Coupling Nut: Nickel-plated Brass
Cable Conductors: 4/24 AWG stranded tinned wire
Outside Diameter (Nom): 6.10mm
Jacket Material: Teal PVC
Inner Material Insulation: Foamed Polypropylene
Certification: UL CMR
Shield Type: Foil shield: 100% coverage, 25% min. overlap

Environmental

Protection: IP67

Shielded PUR

Mechanical

Cable Conductors: 4/22 AWG stranded tinned wire
Outside Diameter (Nom): 6.50mm
Jacket Material: Green PUR
Inner Material Insulation: FRNC
Certification: UL listed CMX
Shield Type: Foil—100% coverage
Braid—85% coverage

Environmental

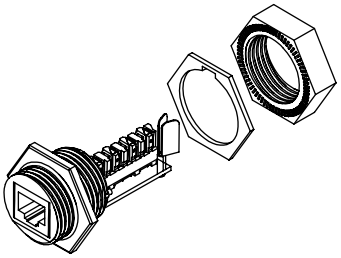
Protection: IP67, sun/oil resistant

Cable Type	Length (m)	Old Part No.	Order No.	Description
Unshielded PVC	1.0	EWWA06003M010	120108-0066	Male Straight/Male Straight
	5.0	EWWA06003M050	120108-0069	
	1.0	EWWA06203M010	120108-0074	Male Straight/Male 90°
	5.0	EWWA06203M050	120108-0076	
	1.0	EWWA06303M010	120108-0082	Male 90°/Male 90°
	5.0	EWWA06303M050	120108-0084	
	0.2	E1WB03003M002	130048-0207	Threaded Female Straight/Male Straight Crossover
Shielded PVC	1.0	EWWA06015M010	120108-0042	Male Straight/Male Straight
	5.0	EWWA06015M050	120108-0044	
	1.0	EWWA06215M010	120108-0050	Male Straight/Male 90°
	5.0	EWWA06215M050	120108-0052	
	1.0	EWWA06315M010	120108-0058	Male 90°/Male 90°
	5.0	EWWA06315M050	120108-0060	
	0.2	E1WB03015M002	130048-0209	Threaded Female Straight/Male Straight Crossover
Shielded PUR	1.0	EWWA06010M010	120108-0090	Male Straight/Male Straight
	5.0	EWWA06010M050	120108-0092	
	1.0	EWWA06210M010	120108-0098	Male Straight/Male 90°
	5.0	EWWA06210M050	120108-0100	
	1.0	EWWA06310M010	120108-0106	Male 90°/Male 90°
	5.0	EWWA06310M050	120108-0108	
	0.2	E1WB03010M002	130048-0208	Threaded Female Straight/Male Straight Crossover

Note: Other standard lengths available. Please contact Molex.

Ethernet Receptacle RJ45 110 Punchdown

130053



Old Part No.	Order No.
ENDR2FB5	130053-0002

Features and Benefits
- Simple field termination of cable using a standard punchdown tool
- Category 5e compliant
- Can be used with TIA 568A or 568B wiring sequences
- Color-coded block simplifies wiring

Reference
TIA/EIA Rating: Category 5e compliant

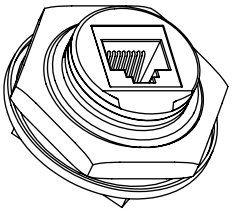
Electrical
Voltage: 125V DC
Current: 1.5A

Mechanical
O-Ring Material: Viton
Insert Material: Acrylonitrile-Butadiene-Styrene (ABS)
Overmold Material: Polyurethane
Coupling Nut Material: Acrylonitrile-Butadiene-Styrene (ABS)
Shell Material: Acrylonitrile-Butadiene-Styrene (ABS)
Knockout Hole: 1.063"
Thread Size: UNC 1" - 14
Panel Thickness: With Gasket—0.125" max.
Without Gasket—0.187" max., 0.062" min.
Plating: RJ45 Jack—50µ Gold over 100µ Nickel
Return Loss: 5 dB at 100 MHZ

Environmental
Environmental Rating: IEC IP67

Ethernet Receptacle Direct PCB Mount

130053



Old Part No.	Order No.
ENPR1FF5	130053-0004

Features and Benefits
- Ideal for OEMs looking to incorporate a sealed, robust connection into their field device
- Category 5e compliant
- Short depths for space constrained applications
- Achieves IP67 rated seal when mated with an RJ-Lnxx cordset- but also compatible with commercial RJ45 patch cords

Reference
TIA/EIA Rating: Category 5e compliant

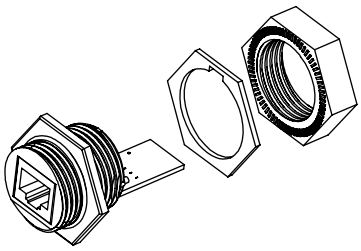
Electrical
Voltage: 125V DC
Current: 1.5A

Mechanical
O-Ring Material: Viton
Insert Material: Acrylonitrile-Butadiene-Styrene (ABS)
Overmold Material: Polyurethane
Coupling Nut Material: Acrylonitrile-Butadiene-Styrene (ABS)
Shell Material: Acrylonitrile-Butadiene-Styrene (ABS)
Knockout Hole: 1.063"
Thread Size: UNC 1" - 14
Panel Thickness: With Gasket—0.125" max.
Without Gasket—0.187" max., 0.062" min.
Plating: RJ45 Jack—50µ Gold over 100µ Nickel
Return Loss: 5 dB at 100 MHZ

Environmental
Environmental Rating: IEC IP67

Ethernet Receptacle PC Board to Cable

130055



Old Part No.	Order No.
ENSR1FB5	130055-0016

Features and Benefits

- Highly flexible solution for OEMs looking to incorporate a sealed, robust receptacle into their field device or control panel
- Achieves IP67 rated seal when mated with an RJ-Lnxx cordset but also compatible with commercial RJ45 patch cords

Reference

TIA/EIA Rating: Not rated as additional customer termination is required

Electrical

Voltage: 125V DC
Current: 1.5A

Mechanical

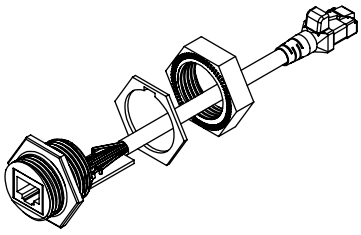
O-Ring Material: Viton
Insert Material: Acrylonitrile-Butadiene-Styrene (ABS)
Overmold Material: Polyurethane
Coupling Nut Material: Acrylonitrile-Butadiene-Styrene (ABS)
Shell Material: Acrylonitrile-Butadiene-Styrene (ABS)
Knockout Hole: 1.063"
Thread Size: UNC 1" - 14
Panel Thickness: With Gasket—0.125" max.
Without Gasket—0.187" max., 0.062" min.
RJ45 Jack Plating: 50µ Gold over 100µ of Nickel
Return Loss: 5 dB at 100 MHZ

Environmental

Environmental Rating: IEC IP67

Ethernet Receptacle Solder PCB and Cable Termination

130055



Old Part No.	Order No.	Description
ENSR1FB5M010	130055-0020	
ENSP1F5M010	130055-0005	Male RJ45

Features and Benefits

- Highly flexible solution for incorporating a sealed, robust receptacle into a field device or control panel, particularly when the Ethernet transreceiver is located some distance from the desired mounting point for the receptacle
- Achieves IEC IP67 rated seal when mated with an RJ-Lnxx cordset- but also compatible with commercial RJ45 patch cords

Reference

TIA/EIA Rating: Not rated as additional customer termination is required

Electrical

Voltage: 125V DC
Current: 1.5A

Mechanical

O-Ring Material: Viton
Insert Material: Acrylonitrile-Butadiene-Styrene (ABS)
Overmold Material: Polyurethane
Coupling Nut Material: Acrylonitrile-Butadiene-Styrene (ABS)
Shell Material: Acrylonitrile-Butadiene-Styrene (ABS)
Knockout Hole: 1.063"
Thread Size: UNC 1" - 14
Panel Thickness: With Gasket—0.125" max.
Without Gasket—0.187" max., 0.062" min.
RJ45 Jack Plating: 50µ Gold over 100µ of Nickel
Return Loss: 5 dB at 100 MHZ

Environmental

Environmental Rating: IEC IP67

Ultra-Lock® (M12) Ethernet Receptacle

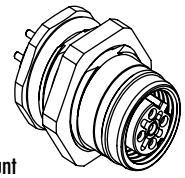
120109
4-Pole

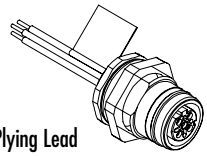
Features and Benefits
- Accepts both threaded and Ultra-Lock (M12) Cordsets
- Category 5e compliant
- IP67 rated, perfect for harsh industrial environments
- D-coded to ensure proper alignment/mating
- Board locking feature for more secure mounting

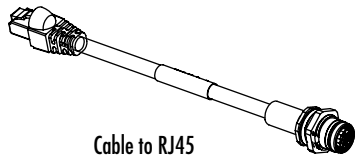
Electrical
Voltage: 215V
Current: 4.0A
TIA/EIA Rating: Category 5E

Mechanical
Shell: Nickel-Plated Brass
Insert: PUR
Conductors: Brass Gold plated/Bronze selective Gold plated
O-Ring: FPM (also called Viton or FKM)

Environmental
Protection: IP67, sun/oil resistant


PCB-Mount


With 0.5m Plying Lead


Cable to RJ45

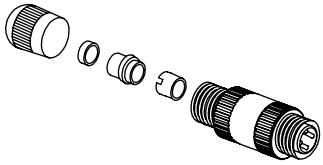
Old Part No.	Order No.	Description	Mount
ERWD2U70	120109-5005	PCB-Mount	Back-Panel Mount
ERWD2J30	120109-5003		Front-Panel Mount/PG9
ERWD2U30	120109-5004		Front-Panel Mount/M16
ERWAAU7000C050	120109-5002	With 0.5 M Flying Lead	Back-Panel Mount
ERWAAJ3000C050	120109-0004		Front-Panel Mount/PG9
ERWAAU3000C050	120109-5001		Front-Panel Mount/M16
ERWPAU7003M006	120109-0005	Cable to RJ45	Back-Panel Mount

Adapters

Old Part No.	Order No.	Description	Mount
ER1PADAPTER	130054-0009	Straight	Back-Panel Mount/ M16 to RJ45 Adapter
ER1PADAPTER90	130054-0010	90°	

Ethernet Field-Attachable Connector M12 Threaded

130047



Features and Benefits

- Mirco-Change® (M12) field attachable connectors allow you to make field connections to bulk cable or single-ended cordsets
- Fast field termination without special tooling
- D-coded to ensure proper alignment/mating

Electrical

Voltage: 32V
Current: 4.0A

Mechanical

Coupling Nut: Zinc die-cast
Shell Material: Zinc die-cast
Contacts: Gold-plated Palladium Nickel
Cable: 22-24 AWG 0.25 to 0.34mm^2
Conductor Insulation: PVC
Conductor Diameter: 1.60 to 2.0mm
Conductor Cross-Section: 1.60 to 2.0mm
Cable Diameter: 5.50 to 7.20mm

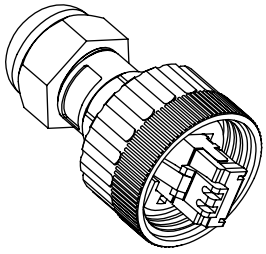
Environmental

Protection: IP67

Old Part No.	Order No.	Description
E1AS06-52	130047-0018	Male
E1AS00-52	130047-0017	Female

Ethernet Field-Attachable Connector RJ45 Threaded

130057



Features and Benefits

- Create an industrial Ethernet cordset in the field using standard crimp tools
- Achieves IEC IP67 rated seal when mated with an RJ-Lnxx receptacle

Mechanical

O-Ring Material: Viton
Insert Material: Acrylonitrile-Butadiene-Styrene (ABS)
Overmold Material: Polyurethane
Coupling Nut Material: Acrylonitrile-Butadiene-Styrene (ABS)
Shell Material: Acrylonitrile-Butadiene-Styrene (ABS)
Thread Size: UNC 1" - 14

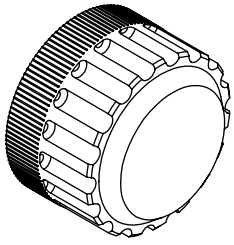
Environmental

Environmental Rating: IEC IP67

Old Part No.	Order No.	Description
ENQAM315	130057-0001	RJ45 Connector (for Stranded Core Cable)
ENSAM315	130057-0003	RJ45 Connector (for Solid Core Cable)

Receptacle Closure Cap

130058



Features and Benefits

- Attaches to RJ-Lnxx receptacles to provide an IEC IP65 rated seal for instances when a cordset is not mated

Mechanical

Material: Protective Cap—PA6 Nylon GF (UV Stabilized)
Lanyard—EPDM Rubber
Thread Size: UNC 1" - 14

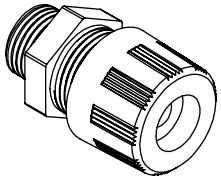
Environmental

Environmental Rating: IEC IP65 (65-0300)
IEC IP67 (67-0300)

Old Part No.	Order No.	Rating
67-0300	130058-0035	IP65
67-0301	130058-0036	IP67

Woodhead® MAX-LOC® Strain Relief Cord Sealing Grip

130098/130099/130180



Features and Benefits

- Highly resistant to impact
- Totally corrosion resistant
- Non-metallic MAX-LOC cord sealing grip will not support combustion
- Suitable for use in wet locations so long as the listed sealing ring is used between box and fitting

Applications

- Electrical boxes
- Cabinets
- Push buttons
- Enclosures

Reference Information

UL File No.: E76954
CSA File No.: LR32159
NEMA:
Without O-Ring—NEMA 3R
With O-Ring—NEMA 6P

Mechanical

Stain Relief Force: 35 lb.

Physical

Body: Nylon
Fitting: UL 94V-2

Old Part No.	Order No.	Cable Diameter Range	Mounting Thread	Body Style	NEMA Rating
5398	130098-0024	0.075-0.135"	1/4" NPT	Straight Male	NEMA 3R
5400	130098-0025	0.135-0.200"			
5402	130098-0026	0.200-0.265"			
5500	130098-0027	0.125-0.187"	3/8" NPT		
5502	130098-0029	0.187-0.250"			
5504	130098-0031	0.250-0.312"			
5506	130098-0032	0.312-0.375"			
5508	130098-0034	0.375-0.437"			
5518	130098-0036	0.062-0.125"	1/2" NPT		
5520	130098-0041	0.125-0.187"			
5522	130098-0046	0.187-0.250"			
5524	130098-0052	0.250-0.312"			
5526	130098-0061	0.312-0.375"			
5528	130098-0069	0.375-0.437"			
5530	130098-0076	0.437-0.500"			
5532	130098-0082	0.500-0.562"			
5518W	130098-0038	0.062-0.125"		Straight Male with O-Ring	NEMA 6P
5520W	130098-0043	0.125-0.187"			
5522W	130098-0049	0.187-0.250"			
5524W	130098-0056	0.250-0.312"			
5526W	130098-0064	0.312-0.375"			
5528W	130098-0071	0.375-0.437"			
5530W	130098-0078	0.437-0.500"			
5532W	130098-0086	0.500-0.562"			
5620	130098-0235	0.187-1.250"	3/4" NPT	Straight Male	NEMA 3R
5622	130098-0236	0.250-0.375"			
5624	130098-0225	0.375-0.437"			
5536	130098-0096	0.437-0.562"			
5538	130098-0103	0.500-0.625"			
5540	130098-0112	0.562-0.687"			
5542	130098-0118	0.625-0.750"			
5620W	130098-0215	0.187-1.250"		Straight Male with O-Ring	NEMA 6P
5622W	130098-0221	0.250-0.375"			
5624W	130098-0227	0.375-0.437"			
5536W	130098-0099	0.437-0.562"			
5538W	130098-0107	0.500-0.625"			
5540W	130098-0114	0.562-0.687"			
5542W	130098-0121	0.625-0.750"			

Note: Additional thread sizes available, contact Molex

Multi-Hole Strain Relief

Straight Male		Straight Male with O-Ring		Cable Size	No. of Holes	Mounting Thread
Old Part No.	Order No.	Old Part No.	Order No.			
5594-007	130098-0202	5594-007W	130098-0203	0.156"	2, 3 or 4[1]	1/2" NPT
5594-008	130098-0204	5594-008W	130098-0205	0.187"	2, 3, 4, 5, 6 or 7[1]	
5594-004	130098-0195	5594-004W	130098-0196	0.225"	2, 3 or 4[1]	
5594-005	130098-0197	5594-005W	130098-0198	0.250"	2 or 3[1]	
5594-006	130098-0199	5594-006W	130098-0200	0.290"	2	

Note: Additional thread sizes available, contact Molex
[1] Indicates one or more holes are covered by a thin membrane which can easily be "poked" open if required.

O-Ring

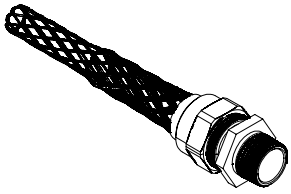
Old Part No.	Order No.	Mounting Thread
00-0820	130180-0314	1/2" NPT
00-0822	130180-0333	3/4" NPT

Lock Nut

Old Part No.	Order No.	Mounting Thread
5599	130099-0141	1/4" NPT
5600	130099-0142	3/8" NPT
5601	130099-0143	1/2" NPT
5602	130099-0144	3/4" NPT

Woodhead® Strain Relief Deluxe Cord Grip

130097/130099



Features and Benefits

- Stainless steel mesh with an aluminum body for corrosion resistance
- Offered in single/double weave construction to help absorb direct pull, to resist flexing and binding and to eliminate strain
- Recommended for indoor and outdoor use
- Suitable for use in hazardous locations per Class I, Div. 2, Class II, Div. 1 and 2, and Class III, Div. 1 and 2

Applications

- Pendant stations
- Processing equipment
- Hand tools
- Extension cord sets

Reference Information

UL File No.: E76954
CSA File No.: LR32159
Hazardous Locations:
Class I, Div. 2
Class II, Div. 1 and 2
Class III, Div. 1 and 2

Mechanical

Stain Relief Force: 35 lb

Physical

Thread: NPT
Body: Aluminum
Woven Mesh: Stainless Steel

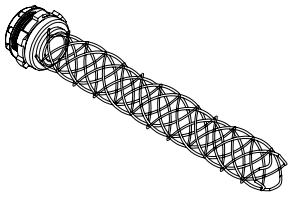
Straight Male		Cable Diameter Range	Mounting Thread
Old Part No.	Order No.		
36490	130097-0250	0.187-0.250"	3/8" NPT
36430	130097-0225	0.250-0.312"	
36431	130097-0226	0.312-0.375"	
36432	130097-0227	0.375-0.437"	
36250	130097-0160	0.187-0.250"	1/2" NPT
36251	130097-0161	0.250-0.375"	
36254	130097-0163	0.375-0.500"	
36256	130097-0165	0.500-0.625"	
36245	130097-0156	0.625-0.750"	
36246	130097-0157	0.750-0.875"	
36257	130097-0166	0.250-0.375"	3/4" NPT
36259	130097-0167	0.375-0.500"	
36261	130097-0168	0.500-0.625"	
36263	130097-0170	0.625-0.750"	
36248	130097-0158	0.750-0.875"	

Note: Additional thread sizes available, contact Molex

Lock Nut		Gasket		Mounting Thread
Old Part No.	Order No.	Old Part No.	Order No.	
5600	130099-0142	5610	130099-0148	3/8" NPT
5601	130099-0143	5611	130099-0149	1/2" NPT
5602	130099-0144	5612	130099-0150	3/4" NPT

Woodhead® Strain Relief Wide Range Dust Tight Grip

130097



Features and Benefits

- For indoor use
- Cost effective solution
- Dust tight, rubber membrane conforms to cable
- Includes insulted bushing

Applications

- Enclosures
- Power boxes
- Machine tools
- Power centers

Reference Information

UL File No.: E76954
CSA File No.: LR32159

Mechanical

Stain Relief Force: 35 lb

Physical

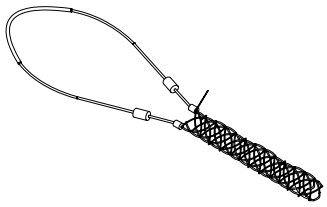
Thread: NPT
Body: Aluminum
Woven Mesh: Galvanized Steel

Straight Male		Cable Diameter Range	Mounting Thread
Old Part No.	Order No.		
36501	130097-0256	0.220-0.320"	1/2" NPT
36503	130097-0258	0.300-0.430"	
36505	130097-0260	0.400-0.540"	
36508	130097-0262	0.520-0.730"	3/4" NPT

Note: Additional thread sizes available, contact Molex

Woodhead®
Support Grip for Fiber Optics

130094
Closed Mesh, Single Eye



Features and Benefits
- Used to support Fiber Optic communication lines for temporary or permanent applications
- Designed to reduce stress on fragile cables in vertical or sloping runs
- Woven nonmagnetic tinned bronze wire
- Available in both single eye and locking bale configurations

Applications
- Vertical or sloping runs

Reference Information
CSA File No.: LR32159

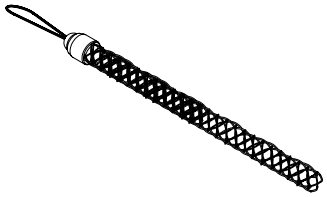
Physical
Woven Mesh: Nonmagnetic Tinned Bronze wire

Old Part No.	Order No.	Cable Diameter Range	Bale Length	Mesh Length	Approximate Break Strength[1]
36670	130094-0522	0.180-0.250"	3"	1.7"	300 lbs
36671	130094-0523	0.230-0.320"	3"	2.5"	
36672	130094-0524	0.300-0.390"	4"	2.5"	
36673	130094-0525	0.370-0.480"	5"	4.0"	
36674	130094-0526	0.460-0.580"	6"	4.0"	400 lbs
36675	130094-0527	0.560-0.710"	7"	5.5"	600 lbs
36676	130094-0528	0.690-0.880"	8"	6.0"	800 lbs

Note: Additional thread sizes available, contact Molex
[1] To determine workload safety factor, divide approximate break strength by 10.

Woodhead®
Pulling Grip for Fiber Optics

130095
Closed Mesh, Rotating Eye



Features and Benefits
- Used for installation of fiber optic communications lines
- Easily installed on cables and reusable
- Rotating eye eliminates tortional stress between your pulling apparatus and your cable for long runs

Applications
- Underground
- Overhead
- Through conduit and/or enclosure-type pulls

Reference Information
CSA File No.: LR32159

Old Part No.	Order No.	Cable Diameter Range	Bale Length	Mesh Length	Approximate Break Strength[1]
36662	130095-0298	0.350-0.480"	5"	18"	2,200 lbs
36663	130095-0299	0.420-0.610"		21"	2,800 lbs
36664	130095-0300	0.530-0.740"		24"	3,300 lbs
36665	130095-0301	0.640-0.870"		27"	4,700 lbs

Note: Additional thread sizes available, contact Molex
[1] To determine workload safety factor, divide approximate break strength by 10.

Commercial Micro-D Connector

This commercial line of shielded Micro-D products with a 1.27mm (.050") pitch, offers an economical solution for commercial and industrial applications that require the density of a microminiature connector. The series is available in a right angle and vertical configuration, designed with a metal interface and grounding tabs for improved mechanical and electrical shield connection.

Also available is the cable receptacle, which has a "crimp and poke" configuration designed for hand or semi-automatic crimping. Our unique backshell design will maintain the integrity of the cable construction while the strain relief is crimped over the cable.

A wide variety of pre-made over-moulded cable assemblies are also available. Configurations include single-ended and double-end CMD, as well as CMD to standard D-sub connectors in 9, 15 and 25 circuit densities.

Features

- Right angle plug available in 9, 15, 18, 25, 30 and 50 circuits
- Vertical plug available in 9, 15 and 25 circuits
- Cable receptacle available in 9, 15 and 25 circuits
- LCP insulator, stamped metal shell
- Crimp and poke contacts on the cable receptacle for customer termination
- Current: 1.0A max.
- UL File No: E34763

Applications

- Commercial
- Computer I/O
- Data storage
- Telecomunications
- Industrial

Overview T-2
1.00mm (.040") Pitch System – 040 III ..... T-3 to T-5
1.00/2.30mm (.040/.090") Pitch System – 0409 Hybrid Housings ..... T-6 to T-7
Stac64™ ..... T-8 to T-13
H-DAC 64™ ..... T-14 to T-15
MOX System ..... T-16 to T-18
MOST System ..... T-18 to T-20
NSCC System ..... T-21 to T-22, T-49 to T-50
OBD-II Connectors ..... T-22 to T-23
MX150™ Sealed Connector System ..... T-24 to T-28
2.50mm (.098") Pitch Wire-to-Wire Splash Proof Connectors
- Terminals T-29, T-32
- Receptacles T-30
- Plugs T-31
- Receptacle Housing and Plug Housing T-33

MX123™ Sealed Connector System ..... T-34 to T-36
MX64™ Sealed Connector Sytem T-37
CMC System ..... T-38 to T-47
CMC CP System ..... T-48 to T-49
Bulb Sockets
- Terminals T-51
- Sealed Sockets T-52

HSAutoLink™ Cable Assemblies ..... T-53 to T-56

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

molex®
one company › a world of innovation

As a major supplier to the global automotive industry, Molex offers vehicle manufacturers and their suppliers a wide range of products and extensive research and development capabilities that include rapid prototyping and high volume production support. In addition, we apply breakthrough technologies from other markets and industries and apply them to in-vehicle electronic devices.

The average new vehicle today contains twice as many connectors as models produced only ten years ago. As electronic content increases in automotive vehicles, Molex is responding with solutions that simplify electrical distribution systems. We are dedicated to reducing weight and packaging space while boosting performance and reliability. Many products incorporate our proprietary technologies in shielding, filtering and assembly.

Our automotive design teams are located in technical centers throughout the world and are linked electronically to share expertise and expedite development. All of our manufacturing sites are ISO 9000 and QS 9000 certified and we currently support automotive manufacturing in all areas of the world.

We are dedicated to developing products that address the growing demand for innovative electrical interfaces, and Molex has created and defined new industry standards by partnering with many agencies including USCAR.

Molex has created unique connector interfaces for four key application segments:

Power train

- Fully sealed, high performance interconnect systems that offer the densest package in the automotive market
- MX123™ and CMC accommodate low level signal and high current load requirements
- Mate assist receptacles reduce harness assembly complexity by integrating the housing, lever, terminal retention feature and connector retention features in one standard assembly
- Sealing performance and package size are optimized by utilizing interfacial and matte seal technologies
- Applications include: on-engine, off road construction, industrial equipment

Sealed

- Wide standard product portfolio dedicated to offering low and stable contact resistance in harsh applications
- Available in matte sealed and cable sealed versions, the MX150™ systems are designed to support current loading for both low-level signal and power applications up to 22.0A
- The MX150 connector footprint and profile has been adapted by industry agency USCAR as their design criteria for systems supporting this specification
- Applications include: exterior lighting, door lock mechanisms, fuel injectors, spark plugs, wiper motors, washers, power steering and hosts of other safety devices

Unsealed

- Stack64™, the modular 0.64mm, 1.50mm and 2.80mm terminal interconnect system, addresses the growing electronic device requirements within today's vehicles by supporting both low-level signal requirements and power requirements up to 30.0A
- Fully-validated to USCAR specifications, Stac64 header assemblies can be used as stand alone components or multiple headers may be ganged together to support a large range of signal and power needs without the need for additional tooling
- Other product in this application segment include: H-DAC64™, MOST, MOX, NSCC
- Applications include: radios, amplifiers, power seats, HVAC, door zone modules, interior lighting, electronic mirrors and most interior electronic interfaces

High Speed

- Molex's HSAutoLink™ family is the emerging high-speed data bus for vehicles, encompassing technologies such as Universal Serial Bus (USB 2.0), Low Voltage Differential Signaling (LVDS), 1394, FlexRay, eMOST and Ethernet
- Leveraging data communications expertise, Molex has packaged an economical and widely deployed five-pin shielded connection system from the consumer market into a more rugged connector system to meet automakers' mechanical requirements and to bring USB and other technologies to vehicle information and entertainment systems
- USCAR-30 supports USB 2.0 requirements for OEM system certification
- Applications include: MP3 players, infotainment, telematic devices, safety cameras and displays



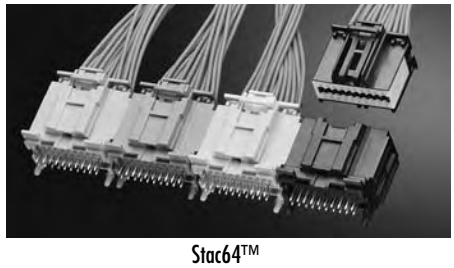
MX123™



CMC



MX150™



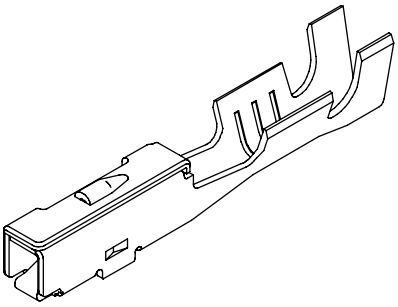
Stac64™



HSAutoLink™

1.00mm (.040") Tab Terminal

50654
Female



Order No.	Wire Range (mm²)	Lead-free
50654-1001	AVS (AVSS) 0.3-0.5	Yes

Features and Benefits
- Locking tab secures terminal to housing

Reference Information
Product Specification: PS-68145-002
Packaging: Reel
Mates With: 50660 Terminal
Use With: 35563, 35564, 35896, 35898, 49014, 64002 and 68508 housings
Designed In: Millimeters

Electrical
Voltage: 13V
Current: 5.0A max.
Contact Resistance: 5 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500V DC Megohms min.

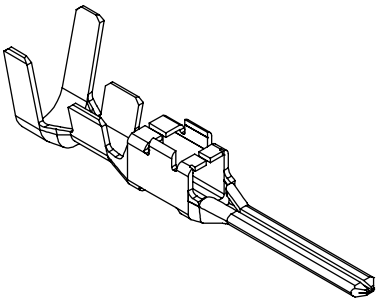
Mechanical
Contact Insertion Force: 1.5 kgf max.
Contact Retention to Housing: 8.0 kgf min.
Durability: 50 cycles

Physical
Contact: Copper Alloy
Plating: Pre-Tin

www.molex.com/customer.html?seriesNumber=50654

1.00mm (.040") Tab Terminal

50660
Male



Order No.	Wire Range (mm²)	Lead-free
50660-9001	AVS (AVSS) 0.3-0.5	Yes

Features and Benefits
- Locking tab secures terminal to housing

Reference Information
Product Specification: PS-68145-002
Packaging: Reel
Mates With: 50654 terminal
Use With: 35897, 35899, 49016, 49102 and 68507 housings
Designed In: Millimeters

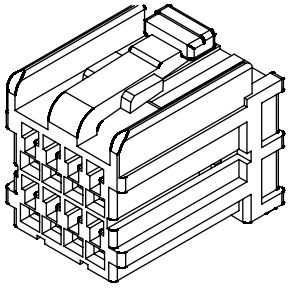
Electrical
Voltage: 13V
Current: 5.0A max.
Contact Resistance: 5 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500V DC 100 Megohms min.

Mechanical
Contact Insertion Force: 1.5 kgf max.
Contact Retention to Housing: 8.0 kgf min.
Durability: 50 cycles

Physical
Contact: Brass
Plating: Pre-Tin

1.00mm (.040") Tab Wire-to-Wire/ Wire-to-Board 040 111 Housing

68508/64002/35563/35564
Female, 2 Rows



Circuits	Order No.	Color
8	68508-0811	Black
	68508-0815	Gray
12	64002-1210	White
	64002-1215	Gray
16	35563-1610	White
	35563-1615	Gray
20	35564-2010	White
	35564-2015	Gray

Features and Benefits
- Meets industry-standard requirements for 040 automotive interface
- Side Terminal Position Assurance (TPA) feature virtually eliminates terminal backout
- Rugged contact design offers increased life cycle durability and mechanical and electrical reliability
- Fully shrouded to protect contacts

Reference Information
Product Specification: PS-68145-002
Packaging: Bag
Mates With: 53874, 68145 and 68151
Use With: 50654
Designed In: Millimeters

Electrical
Voltage: 13V
Current: 5.0A max.
Contact Resistance: 5 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500V DC 100 Megohms min.

Mechanical
Contact Insertion Force: 1.5 kgf max.
Contact Retention to Housing: 8.0 kgf min.

Circuits	Mating Force (kgf. max.)	Unmating Force (kgf. max.)
8	10	10
12		
16	15	15
20		

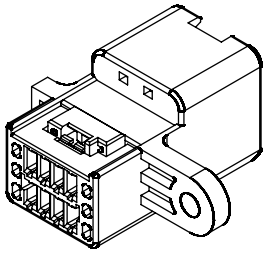
Durability: 50 cycles

Physical
Housing: Polyester, UL 94-HB

www.molex.com/customer.html?seriesNumber=68508

1.00mm (.040") Tab Wire-to-Wire 040 III Housing

68507/64002
Male, 8 Circuits, 2 Rows



Circuits	Order No.	Type
8	68507-0811	Screw
	68507-0821	Clip
12	64002-1210	Screw
	64002-1215	

Features and Benefits
- Meets industry-standard requirements for 040 automotive interface
- Side Terminal Position Assurance (TPA) feature virtually eliminates terminal backout
- Rugged contact design offers increased life cycle durability, and mechanical and electrical reliability
- Side flange provides panel mounting retention
- Fully shrouded to protect contacts

Reference Information
Product Specification: PS-35896-001 and PS-68507-003
Packaging: Bag
Mates With: 68508, 64022
Use With: 50654 and 50660
Designed In: Millimeters

Electrical
Voltage: 13V
Current: 5.0A max.
Contact Resistance: 5 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500V DC 100 Megohms min.

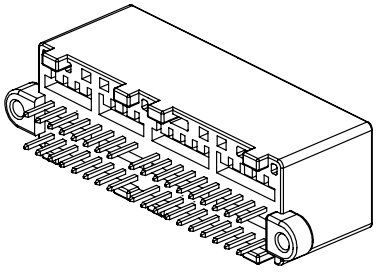
Mechanical
Contact Insertion Force: 1.5 kgf max.
Contact Retention to Housing: 8.0 kgf min.
Mating Force: 10 kgf max.
Unmating Force: 10 kgf max.
Durability: 50 cycles

Physical
Housing: Polyester, UL 94-HB

www.molex.com/customer.html?seriesNumber=68507

1.00mm (.040") Tab Wire-to-Board 040 III Header

68145/68151-XX1X
Vertical



Features and Benefits
- Meets industry-standard requirements for 040 automotive interface
- Rugged contact design offers increased life cycle durability and mechanical and electrical reliability
- Fully shrouded to protect contacts

Reference Information
Product Specification: PS-68145-002 and PS-68145-005
Packaging: Tray
Mates With: 35563, 35564, 64002 and 68508
Use With: 50654
Designed In: Millimeters

Electrical
Voltage: 13V
Current: 5.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500V DC 100 Megohms min.

Mechanical
Contact Insertion Force: 1.5 kgf max.
Contact Retention to Housing: 8.0 kgf min.

Circuits	Mating Force (kgf. max.)	Unmating Force (kgf. max.)
8	10	10
12		
16	15	15
20		
28	18	18
36		

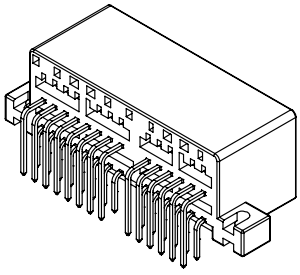
Durability: 50 cycles

Physical
Housing: Polyester, UL 94-HB
Contact: Brass
Plating: Contact Area—Tin
Solder Tail Area—Tin
Underplating: Copper
PCB Thickness: 1.6mm (.062")

Circuits	Order No.	Color	Lead-free
8	68145-0811	Black	Yes
	68145-0815	Gray	
12	68145-1211	Black	
	68145-1215	Gray	
16	68145-1615		
20	68151-2015		
28	68145-2815		
	68145-2811	Black	
36	68145-3615	Gray	

1.00mm (.040") Tab Wire-to-Board 040 III Header

68145/68151-XX2X
Right Angle



Features and Benefits
- Meets industry-standard requirements for 040 automotive interface
- Rugged contact design offers increased life cycle durability and mechanical and electrical reliability
- Fully shrouded to protect contacts

Reference Information
Product Specification: PS-68145-002 and PS-68145-005
Packaging: Tray
Mates With: 35563, 35564, 64002 and 68508
Use With: 50654
Designed In: Millimeters

Electrical
Voltage: 13V
Current: 5.0A max.
Contact Resistance: 5 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500V DC 100 Megohms min.

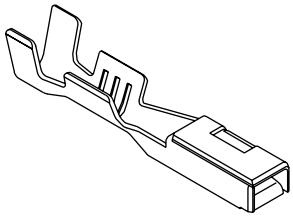
Mechanical
Contact Insertion Force: 1.5 kgf max.
Contact Retention to Housing: 8.0 kgf min.
Mating Force: 15 kgf max.
Unmating Force: 15 kgf max.
Durability: 50 cycles

Physical
Housing: Polyester, UL 94-HB
Contact: Brass
Plating: Contact Area—Tin
Solder Tail Area—Tin
Underplating: Copper
PCB Thickness: 1.6mm (.062")

Circuits	Order No.	Color	Lead-free
8	68145-0821	Black	Yes
	68145-0825	Gray	
12	68145-1221	Black	
	68145-1225	Gray	
16	68145-1625		
20	68151-2025		
28	68145-2825		
	68145-2821	Black	
36	53874-3615		

2.30mm (.090") Tab Terminal

35421
Female



Features and Benefits
- Housing-locking feature avoids deformation of terminal
- Accepts wide wire range (0.3 to 2.0mm²)

Reference Information
Product Specification: PS-35282
Packaging: Reel
Mates With: 35420-9702/9802/9902
Use With: 35284 housing
Designed In: Millimeters

Electrical
Voltage: 13V
Current:

Wire Size	Current
0.3	6A
0.5	8A
0.85	10A
1.25	14A
2.0	18A

Contact Resistance: 3 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500V DC 100 Megohms min.

Mechanical
Contact Insertion Force: 1.5 kgf max.
Contact Retention to Housing: 10 kgf min.
Durability: 50 cycles

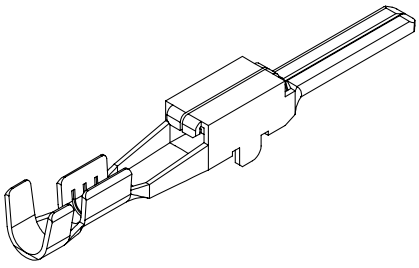
Physical
Contact: Copper Alloy
Plating: Tin

Order No.	Wire Range (mm²)	Lead-free
35421-6702	AVS (CAVS) 0.30 to 0.50 (.012 to .020)	Yes
35421-6802	AVS (CAVS) 0.50 to 1.25 (.020 to .050)	
35421-6902	AVSS 2f	

www.molex.com/customer.html?seriesNumber=35421

2.30mm (.090") Tab Terminal

57919
Male



Features and Benefits
- Locking tab secures terminal to housing

Reference Information
Product Specification: PS-35896-2090
Packaging: Reel
Mates With: 35421 Terminal
Use With: 35897 and 49016 housings
Designed In: Millimeters

Electrical
Voltage: 13V
Current:

Wire Size	Current
0.3	6A
0.5	8A
0.85	10A
1.25	14A
2.0	18A

Contact Resistance: 3 milliohms max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500V DC 100 Megohms min.

Mechanical
Contact Insertion Force: 1.5 kgf max.
Contact Retention to Housing: 10 kgf min.
Durability: 50 cycles

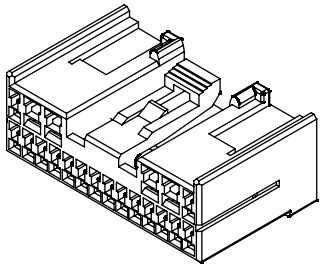
Physical
Contact: Brass
Plating: Pre-Tin

Order No.	Wire Range (mm²)	Insulation Diameter	Lead-free
57919-6702	0.3-0.5	2.60mm (.102") max.	Yes
57919-6802	0.85-1.25	2.90mm (.115") max.	
57919-6902	2.0		

www.molex.com/customer.html?seriesNumber=57919

1.00/2.30mm (.040/.090") Tab Wire-to-Wire 0409 Hybrid Housing

49014/35898/35896
Female



Features and Benefits
- Meets industry-standard requirements for 040/090 automotive interface
- Side Terminal Position Assurance (TPA) feature virtually eliminates terminal backout
- Rugged contact design offers increased life cycle durability, and mechanical and electrical reliability
- Side flange provides panel mounting retention
- Fully shrouded to protect contacts
- Hybrid structure:
  1.00mm (.040") terminals for signal circuits
  2.30mm (.090") terminals for normal circuits

Circuits	Signal	Normal
20	16	4
22	18	
24	20	

Reference Information
Product Specification: PS-35896-001 and PS-68507-003
Packaging: Bag
Mates With: 35897, 35899 and 49016
Use With: 35421 and 50654
Designed In: Millimeters

Electrical
Voltage: 13V
Current: 5.0A max. (.040")
10.0A max. (.090")
Contact Resistance: 3 milliohms max. (090)
5 milliohms max. (040)
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500V DC 100 Megohms min.

Mechanical
Contact Insertion Force: 1.5 kgf max.
Contact Retention to Housing: 8 kgf min. (040)
10 kgf min (090)

Circuits	Mating Force (kgf. max.)	Unmating Force (kgf. max.)
10	14	14
14	18	18
20		
22		
24		

Durability: 50 cycles

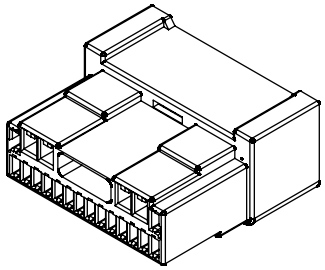
Physical
Housing: White Polyester, UL 94-HB

Circuits	Order No.
14	35898-1410
20	35896-2010
22	35896-2210
24	35896-2410

www.molex.com/customer.html?seriesNumber=49014

1.00/2.30mm (.040/.090") Tab Wire-to-Wire 0409 Hybrid Housing

35897
Male



Features and Benefits
- Meets industry-standard requirements for 040/090 automotive interface
- Side Terminal Position Assurance (TPA) feature virtually eliminates terminal backout
- Rugged contact design offers increased life cycle durability, and mechanical and electrical reliability
- Side flange provides panel mounting retention
- Fully shrouded to protect contacts

Reference Information
Product Specification: PS-35896-2090
Packaging: Bag
Mates With: 35896
Use With: 50660 and 57919
Designed In: Millimeters

Electrical
Voltage: 13V
Current: 5.0A max. (.040")
10.0A max. (.090")
Contact Resistance: 3 milliohms max. (090)
5 milliohms max. (040)
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500V DC 100 Megohms min.

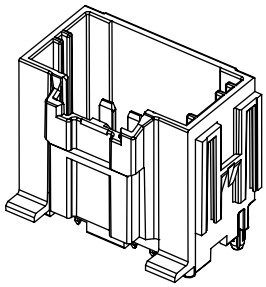
Mechanical
Contact Insertion Force: 1.5 kgf min.
Contact Retention to Housing: 8 kgf min. (040)
10 kgf min (090)
Mating Force: 18 kgf max.
Unmating Force: 18 kgf max.
Durability: 50 cycles

Physical
Housing: Polyester, UL 94-HB

Circuits	Order No.
20	35897-2010
22	35897-2210
24	35897-2410

2.54mm (.100") Pitch Stac64™ Header

34695
Vertical Single-Bay Hybrid



Features and Benefits
- PCB alignment posts ensure all terminals are properly aligned into PCB through-holes during assembly and retain header to PCB during assembly and solder processing
- PCB stand-offs molded into housings provide additional trace-routing real estate under the headers
- High temperature thermoplastic housings withstand infra red (IR) and wave lead-free solder processing per ES-40000-5013 Molex specification
- Stackable connection system of readily available PCB headers ensure reduced time-to-market: engineering and validation times reduced significantly, no tooling necessary to produce custom multi-bay headers
- Pre-assembled, linear Mylar PC tail alignment strip for right-angle headers reduces PCB packaging complexity and provides space savings
- The header housings are molded in standard USCAR color schemes for additional polarizations to match harness connector color-coding scheme for visual aid in assembly
- Modular-housing design with standard dovetail features molded into the housings allows headers to be ganged together in large assemblies to meet growing terminal quantity requirements

Reference Information
Packaging: Male Headers–Tray
Mates With: Series 31372 female connectors
Designed In: Millimeters

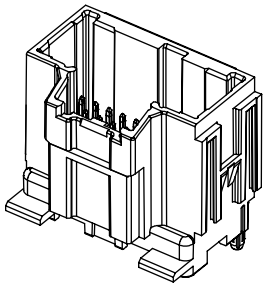
Electrical
Voltage: 500V max.
Current: 2.80mm (.110")—30.0A max.
1.50mm (.059")—18.0A max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.
Durability: 10 milliohms max.—10 cycles
Header Pin retention Force:
2.80mm (.110")—70N (15.7 lb) min.
1.50mm (.059")—70N (15.7 lb) min.

Physical
Header Housings: Glass filled SPS
Contact:
2.80mm (.110") blades—Copper Alloy
1.50mm (.059") blades—Copper Alloy
Plating:
1.50mm (.059") blades: Overplating—Tin Underplating—Nickel
2.80mm (.110") blades: Overplating—Tin Underplating—Nickel

Circuit Size	Order No.	Polarization Option	Color	Packaging	Assembly Features	Headers
10	34695-0100	A	Black	Tray	Housing and Blades Assembly	Power
	34695-0101	B	Grey			

2.54mm (.100") Pitch Stac64™ Header

34690
Vertical Single-Bay



Features and Benefits
- PCB alignment posts ensure all terminals are properly aligned into PCB through-holes during assembly and solder processing
- PCB stand-offs molded into housings provide additional trace-routing real estate under the headers
- High temperature thermoplastic housings withstand infra red (IR) and wave lead-free solder processing per ES-40000-5013 Molex specification
- Stackable connection system of readily available PCB headers ensure reduced time-to-market: engineering and validation times reduced significantly, no tooling necessary to produce custom multi-bay headers
- The header housings are molded in standard USCAR color schemes for additional polarizations to match harness connector color-coding scheme for visual aid in assembly
- Modular-housing design with standard dovetail features molded into the housings allows headers to be ganged together in large assemblies to meet growing terminal quantity requirements

Reference Information
Packaging: Male Vertical Headers—Tray or Tube
Mates With: Series 34729 female connectors
Designed In: Millimeters

Electrical
Voltage: 500V max.
Current: 0.64mm (.025")—8.0A max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.

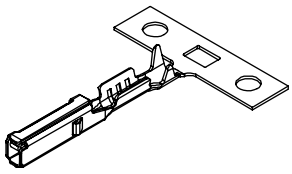
Mechanical
Durability: 10 milliohms max.—10 cycles
Header Pin Retention Force:
0.64mm (.025")—15N (3.4 lb) min.

Physical
Header Housings: Glass filled SPS
Contact: 0.64mm (.025") pins—Copper Alloy
Plating:
0.64mm (.110") signal pins: Overplating—Tin Underplating—Nickel

Circuit Size	Order No.	Polarization Option	Color
8	34690-0080	A	Black
	34690-0081	B	Grey
	34690-0082	C	Brown
12	34690-0120	A	Black
	34690-0121	B	Grey
	34690-0122	C	Brown
16	34690-0160	A	Black
	34690-0161	B	Grey
	34690-0162	C	Brown
20	34690-0200	A	Black
	34690-0201	B	Grey
	34690-0202	C	Brown
	34690-0203	D	Green

0.64mm (.025") CTX64 Crimp Terminal

34803
Female



Features and Benefits
- Excellent stress-relaxation properties
- One-piece design to keep cost low
- Clean-body design to insert through matte seal
- Accommodates ISO/JASO and SAE wires
- Lead free
- Compatible to competitor's RH-terminal cavity
- Single polarization

Reference Information
Product Specification: PS-502306-001
Packaging: Reel
Mates With: 0.64mm wide by 0.64mm thick blade
Use With: 34729, 98833 and 502725
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 7.0A
Contact Resistance: 5 milliohms max.

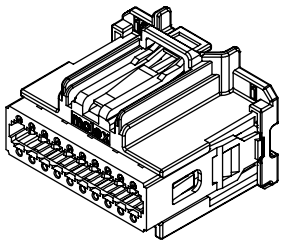
Mechanical
Wire Pull-Out Force: 0.85mm²—130N min.
0.22mm²—40N min
Mating Force: 4N max.
Unmating Force: 4N max.
Durability: 10 mates max.

Physical
Contact: Copper alloy
Plating: Contact Area—Tin
Solder Tail Area—Tin
Underplating—Nickel
Insulation Diameter: 1.9mm max.
Wire Gauge: 0.22 to 0.85mm²

Order No.		Polarization Option See Inset	Grip Code	Wire Gauge			Plating
D-Wind (Left Payoff)	B-Wind (Right Payoff)			ISO (mm²)	JASO (mm²)	SAE (gauge)	
34803-0211	34803-0213	Dual	S	0.22-0.35	0.3	22	Tin
34803-0212	34803-0214		L	0.50-0.75	0.50-0.85	20	

2.54mm (.100") Pitch Stac64™ Signal Receptacle

34729



Features and Benefits
- Pre-assembled TPA to receptacle housing shipped as single assembly provide applied labor and cost savings

Reference Information
Packaging: Female Receptacle Connectors—Bulk Pack
Mates With: Series 34690, 34691 male unsealed headers
Use With Terminals:
0.64mm (.059") female—Series 502306
Designed In: Millimeters

Electrical
Voltage: 500V max.
Current: 0.64mm (.025")—8.0A max.
Contact Resistance: 0.64mm (.025")—20 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.

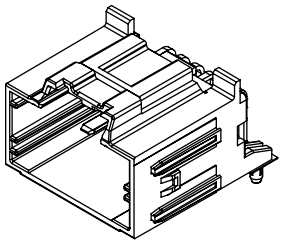
Mechanical
Connector Retention (Primary latch): 110N (24.7 lb) min.
Contact Retention to Housing:
0.64mm (.025")—75N (16.9 lb) min. with TPA,
30N (6.7 lb) without TPA
Contact Insertion Force Into Housing: 30N (6.7 lb) max.
Connector Audible Feedback: 7dB over ambient
Durability: 10 milliohms max.—10 cycles
TPA Insertion Force: 60N (13.5 lb) max.
TPA Extraction Force: 60N (13.5 lb) max.
Thermal Shock (Class 2, 100 cycles):
0.64mm (.025")—20 milliohms max.
Vibration/Mechanical Shock (electrical):
0.64mm (.025")—20 milliohms max.
Temperature/Humidity (electrical):
0.64mm (.025")—20 milliohms max.
High Temperature Exposure (electrical):
0.64mm (.025")—20 milliohms max.

Physical
Harness Housings: Glass filled SPS/nylon blend
TPA: 15% glass filled polyester

Circuit Size	Order No.	Polarization Option	Color	Assembly Features	Comment
8	34729-0080	A	Black	Housing and TPA Assembly	0.64mm (.025") terminal size USCAR receptacle connectors
	34729-0081	B	Grey		
	34729-0082	C	Brown		
12	34729-0120	A	Black		
	34729-0121	B	Grey		
	34729-0122	C	Brown		
16	34729-0160	A	Black		
	34729-0161	B	Grey		
	34729-0162	C	Brown		
20	34729-0200	A	Black		
	34729-0201	B	Grey		
	34729-0202	C	Brown		
	34729-0203	D	Green		

2.54mm (.100") Pitch Stac64™ Header

34696
Right Angle Single-Bay Hybrid



Features and Benefits
- PCB alignment posts ensure all terminals are properly aligned into PCB through-holes during assembly and retain header to PCB during assembly and solder processing
- PCB stand-offs molded into housings provide additional trace-routing real estate under the headers
- High temperature thermoplastic housings withstand infra red (IR) and wave lead-free solder processing per ES-40000-5013 Molex specification
- Stackable connection system of readily available PCB headers ensure reduced time-to-market: engineering and validation times reduced significantly, no tooling necessary to produce custom multi-bay headers
- The header housings are molded in standard USCAR color schemes for additional polarizations to match harness connector color-coding scheme for visual aid in assembly
- Modular-housing design with standard dovetail features molded into the housings allows headers to be ganged together in large assemblies to meet growing terminal quantity requirements

Reference Information
Packaging: Male Headers—Tray or Tube
Mates With: Series 31372 female connectors
Designed In: Millimeters

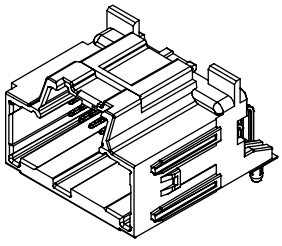
Electrical
Voltage: 500V max.
Current: 2.80mm (.110")—30.0A max.
1.50mm (.059")—18.0A max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.
Polarization Feature Effectiveness: 220N (49.5 lb) min.
Durability: 10 milliohms max.—10 cycles
Header Pin retention Force:
2.80mm (.110")—70N (15.7 lb) min.
1.50mm (.059")—70N (15.7 lb) min.

Physical
Header Housings: Glass filled SPS
Contact:
2.80mm (.110") blades—Copper Alloy
1.50mm (.059") blades—Copper Alloy
Plating: 1.50mm (.059") blades:
Overplating—Tin
Underplating—Nickel
2.80mm (.110") blades: Overplating—Tin
Underplating—Nickel

Circuit Size	Order No.	Polarization Option	Color	Packaging	Assembly Features	Headers
10	34695-0100	A	Black	Tray	Housing and Blades Assembly	Power
	34695-0101	B	Grey			
	34695-9100	A	Black	Tube		
	34695-9101	B	Grey			

2.54mm (.100") Pitch Stac64™ Header

34691
Right Angle Single-Bay



Features and Benefits
- PCB alignment posts ensure all terminals are properly aligned into PCB through-holes during assembly and retain header to PCB during assembly and solder processing
- PCB stand-offs molded into housings provide additional trace-routing real estate under the headers
- High temperature thermoplastic housings withstand infra red (IR) and wave lead-free solder processing per ES-40000-5013 Molex specification
- Stackable connection system of readily available PCB headers ensure reduced time-to-market: engineering and validation times reduced significantly, no tooling necessary to produce custom multi-bay headers
- The header housings are molded in standard USCAR color schemes for additional polarizations to match harness connector color-coding scheme for visual aid in assembly
- Modular-housing design with standard dovetail features molded into the housings allows headers to be ganged together in large assemblies to meet growing terminal quantity requirements

Reference Information
Packaging: Male Vertical Headers—Tray
Mates With: Series 34729 female connectors
Designed In: Millimeters

Electrical
Voltage: 500V max.
Current: 0.64mm (.025")—8.0A max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.

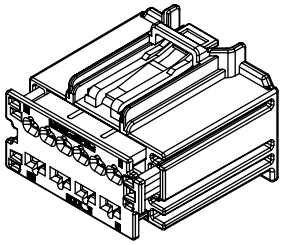
Mechanical
Durability: 10 milliohms max.—10 cycles
Header Pin retention Force:
0.64mm (.025")—15N (3.4 lb) min.

Physical
Header Housings: Glass filled SPS
Contact: 0.64mm (.025") pins—Copper Alloy
Plating: 0.64mm (.110") signal pins:
Overplating—Tin
Underplating—Nickel

Circuit Size	Order No.	Polarization Option	Color
8	34691-0080	A	Black
	34691-0081	B	Grey
	34691-0082	C	Brown
12	34691-0120	A	Black
	34691-0121	B	Grey
	34691-0122	C	Brown
16	34691-0160	A	Black
	34691-0161	B	Grey
	34691-0162	C	Brown
20	34691-0200	A	Black
	34691-0201	B	Grey
	34691-0202	C	Brown
	34691-0203	D	Green

2.54mm (.100") Pitch Stac64™ Hybrid Receptacle

31372



Features and Benefits

- Pre-assembled TPA to receptacle housing shipped as single assembly provide applied labor and cost savings

Reference Information

Packaging: Female Receptacle Connectors—Bulk Pack
Male Vertical Headers—Tray
Mates With: Series 34695, 34696 male unsealed headers
Use With Terminals:
1.50mm (.059") female—Molex 33012-2001, -2002, -2003
2.80mm (.110") female—Tyco and Yazaki
Tooling: Molex & Tyco Electronics
Designed In: Millimeters

Electrical

Voltage: 500V max.
Current: 2.80mm (.110")—30.0A max.
1.50mm (.059")—18.0A max.
Contact Resistance: 2.80mm (.110")—5 milliohms max.
1.50mm (.059")—10 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.

Mechanical

Mating Force: Less than 75N (16.9 lb)
Unmating Force: Less than 75N (19.1 lb)
Connector Retention (Primary latch): 110N (24.7 lb) min.
Contact Retention to Housing: 2.80mm (.110")—90N (20.2 lb) min. with TPA, 60N (13.5 lb) without TPA
1.50mm (.059")—85N (19.1 lb) min. with TPA, 45N (10.1 lb) without TPA
Contact Insertion Force Into Housing: 30N (6.7 lb) max.
Connector Audible Feedback: 7dB over ambient
Durability: 10 milliohms max.—10 cycles
TPA Insertion Force: 60N (13.5 lb) max.
TPA Extraction Force: 60N (13.5 lb) max.
Thermal Shock (Class 2, 100 cycles):
2.80mm (.110")—5 milliohms max.
1.50mm (.059")—10 milliohms max.
Vibration/Mechanical Shock (electrical):
2.80mm (110")—5 milliohms max.
1.50mm (.059")—10 milliohms max.
Temperature/Humidity (electrical):
2.80mm (.110")—5 milliohms max.
1.50mm (.059")—10 milliohms max.
High Temperature Exposure (electrical):
2.80mm (.110")—5 milliohms max.
1.50mm (.059")—10 milliohms max.

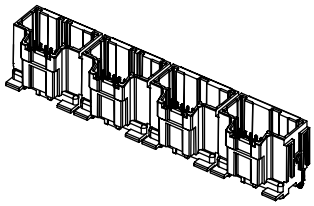
Physical

Harness Housings: glass filled SPS/nylon blend
TPA: 15% glass filled polyester
Contact:
2.80mm (.110") blades—Copper Alloy
1.50mm (.059") blades—Copper Alloy
Plating: 1.50mm (.059") blades:
Overplating—Tin
Underplating—Nickel 1.50mm (.059")
Receptacle Terminals: Overplating—Tin
Underplating—Nickel
2.80mm (.110") blades: Overplating—Tin
Underplating—Nickel

Circuit Size	Order No.	Polarization Option	Color	Comment
10	31372-1000	A	Black	1.50 and 2.80mm (.059 and .110") terminal size hybrid receptacle connectors
	31372-1001	B	Grey	

2.54mm (.100") Pitch Stac64™ Header

34707
Vertical Ganged Multi-Bay



Features and Benefits

- PCB alignment posts ensure all terminals are properly aligned into PCB through-holes during assembly and retain header to PCB during assembly and solder processing
- High temperature thermoplastic housings withstand infra red (IR) and wave lead-free solder processing per ES-40000-5013 Molex specification
- Stackable connection system of readily available PCB headers ensure reduced time-to-market: engineering and validation times reduced significantly, no tooling necessary to produce custom multi-bay headers
- The header housings are molded in standard USCAR color schemes for additional polarizations to match harness connector color-coding scheme for visual aid in assembly
- Modular-housing design with standard dovetail features molded into the housings allows headers to be ganged together in large assemblies to meet growing terminal quantity requirements

Reference Information

Packaging: Male Headers—Tray or Tube
Mates With: Series 34729 and 31372 female connectors
Designed In: Millimeters

Electrical

Voltage: 500V max.
Current: 2.80mm (.110")—30.0A max.
1.50mm (.059")—22.0A max.
0.64mm (.025")—8.0A max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.

Mechanical

Durability: 10 milliohms max.—10 cycles
Header Pin retention Force:
2.80mm (.110")—70N (15.7 lb) min.
1.50mm (.059")—70N (15.7 lb) min.
0.64mm (.025")—15N (3.4 lb) min.

Physical

Header Housings: Glass filled SPS
Contact:
2.80mm (.110") blades—Copper Alloy
1.50mm (.059") blades—Copper Alloy
0.64mm (.025") pins—Copper Alloy
Plating: 0.64mm (.110") signal pins:
Overplating—Tin
Underplating—Nickel
1.50mm (.059") blades: Overplating—Tin
Underplating—Nickel
2.80mm (.110") blades: Overplating—Tin
Underplating—Nickel

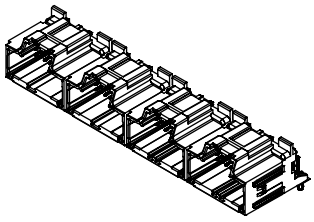
Order No.	No. of Bays	Circuit Sizes by Bay	Assembly Features	Headers
34707-2000	2	20 by 20	Housing and Pins Assembly	Signal
34707-2002				
34707-2012		10 by 20	Housing, Pins and Blades Assembly	Signal and Power
34707-2022		20 by 10	Housing and Blades Assembly	
34707-2030		10 by 10	Housing, Pins and Blades Assembly	Power
34707-4000	4	20 by 20 by 20 by 20	Housing and Pins Assembly	Dense Signal

Note: Other configurations available, contact Molex

2.54mm (.100") Pitch Stac64™ Header

34708

Right Angle Ganged Multi-Bay



Features and Benefits

- PCB alignment posts ensure all terminals are properly aligned into PCB through-holes during assembly and retain header to PCB during assembly and solder processing
- High temperature thermoplastic housings withstand infra red (IR) and wave lead-free solder processing per ES-40000-5013 Molex specification
- Stackable connection system of readily available PCB headers ensure reduced time-to-market: engineering and validation times reduced significantly, no tooling necessary to produce custom multi-bay headers
- The header housings are molded in standard USCAR color schemes for additional polarizations to match harness connector color-coding scheme for visual aid in assembly
- Modular-housing design with standard dovetail features molded into the housings allows headers to be ganged together in large assemblies to meet growing terminal quantity requirements

Reference Information

Packaging: Male Headers—Tray or Tube
Mates With: Series 34729 and 31372 female connectors
Designed In: Millimeters

Electrical

Voltage: 500V max.
Current: 2.80mm (.110")—30.0A max.
1.50mm (.059")—22.0A max.
0.64mm (.025")—8.0A max.
Dielectric Withstanding Voltage: 500V DC
Isolation Resistance: 20 Megohms min.

Mechanical

Durability: 10 milliohms max.—10 cycles
Header Pin Retention Force:
2.80mm (.110")—70N (15.7 lb) min.
1.50mm (.059")—70N (15.7 lb) min.
0.64mm (.025")—15N (3.4 lb) min.

Physical

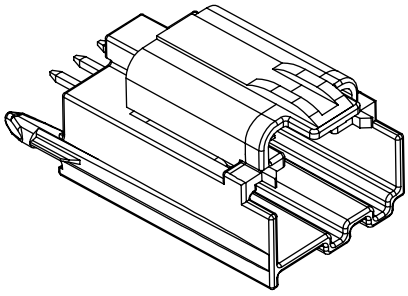
Header Housings: Glass filled SPS
Contact:
2.80mm (.110") blades—Copper Alloy
1.50mm (.059") blades—Copper Alloy
0.64mm (.025") pins—Copper Alloy
Plating: 0.64mm (.110") signal pins:
Overplating—Tin
Underplating—Nickel
1.50mm (.059") blades: Overplating—Tin
Underplating—Nickel
2.80mm (.110") blades: Overplating—Tin
Underplating—Nickel

Order No.	No. of Bays	Circuit Sizes by Bay	Assembly Features	Headers
34708-2000	2	20 by 20	Housing, Blades and Mylar Assembly	Signal
34708-2012		10 by 20	Housing, Pins, Blades and Mylar Assembly	Signal and Power
34708-2022		20 by 10		
34708-2030		10 by 10	Housing, Blades and Mylar Assembly	Power
34708-4000	4	20 by 20 by 20 by 20	Housing, Pins and Mylar Assembly	Dense Signal

Note: Other configurations available, contact Molex

2.54mm (.100") Pitch H-DAC 64™ Header

31101
Vertical Single Row



Features and Benefits
- Versatile product selection
- Scoop-proof housing
- Three standard polarizations in 3 colors
- TPA feature
- Positive-lock provides audible click
- Optional clip slot feature

Reference Information
Product Specifications: PS-31067-0001 (single row)
PS-31101-0001 (headers)
Packaging: Bag
Mates With:
Male and Female
Single Row—31067, 31068, 31072 and 31073
Headers—31100 and 31101
Use With: Industry approved male and female terminals
Designed In: Millimeters

Electrical
Voltage: 500V
Current: 10A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 20 Megohms min.

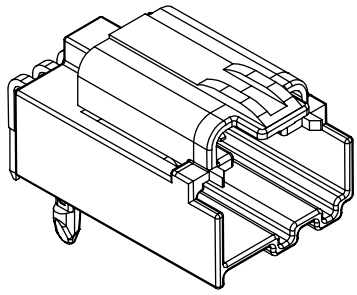
Mechanical
Contact Insertion Force: 30N (6.7 lb)
Contact Retention to Housing: 30N (6.7 lb)
Mating Force: 45N (10.1 lb)
Unmating Force: 45N (10.1 lb)
Durability: 10 cycles

Physical
Housing: Glass filled SPS
Contact: Copper Alloy
Plating: Overplating—Tin
Underplating—Nickel

Circuits	Order No.	Polarization	Options	Lead-free
4	31101-0040	A	PCB Retention Pegs	Yes
	31101-0041	B		
	31101-0042	C		
	31101-1140	A	Wings	
	31101-1240	B		
	31101-1340	C		

2.54mm (.100") Pitch H-DAC 64™ Header

31100
Right Angle Single Row



Features and Benefits
- Versatile product selection
- Scoop-proof housing
- Three standard polarizations in three colors
- TPA feature
- Positive-lock provides audible click
- Optional clip slot feature

Reference Information
Product Specifications: PS-31067-0001 (single row)
PS-31101-0001 (headers)
Packaging: Bag
Mates With:
Male and Female
Single Row—31067, 31068, 31072 and 31073
Headers—31100 and 31101
Use With: Industry approved male and female terminals
Designed In: Millimeters

Electrical
Voltage: 500V
Current: 10A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 20 Megohms min.

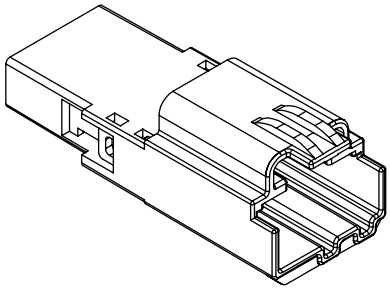
Mechanical
Contact Insertion Force: 30N (6.7 lb)
Contact Retention to Housing: 30N (6.7 lb)
Mating Force: 45N (10.1 lb)
Unmating Force: 45N (10.1 lb)
Durability: 10 cycles

Physical
Housing: Glass filled SPS
Contact: Copper Alloy
Plating: Overplating—Tin
Underplating—Nickel

Circuits	Order No.	Polarization	Lead-free
4	31100-0040	A	Yes
	31100-0041	B	
	31100-0042	C	

2.54mm (.100") Pitch H-DAC 64™ Male Plug

31067/31068/31072/ 31073 Single Row



Features and Benefits
- Versatile product selection
- Scoop-proof housing
- Three standard polarizations
- TPA feature
- Positive-lock provides audible click
- Optional clip slot feature

Reference Information
Product Specifications: PS-31067-0001 (single row)
PS-31101-0001 (headers)
Packaging: Bulk
Mates With:
Male and Female
Single Row—31067, 31068, 31072 and 31073
Headers—31100 and 31101
Use With: Industry approved male and female terminals
Designed In: Millimeters

Electrical
Voltage: 500V
Current: 10A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 20 Megohms min.

Mechanical
Contact Insertion Force: 30N (6.7 lb)
Contact Retention to Housing: 30N (6.7 lb)
Mating Force: 45N (10.1 lb)
Unmating Force: 45N (10.1 lb)
Durability: 10 cycles

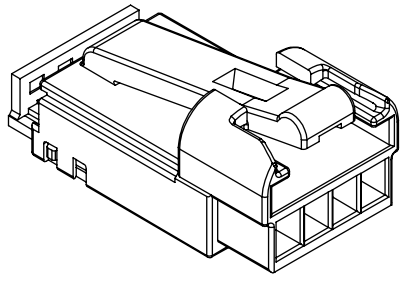
Physical
Housing: Glass filled SPS
Contact: Copper Alloy
Plating: Overplating—Tin
Underplating—Nickel

Circuits	Order No.	Polarization	Options	Lead-free
3	31067-1040	A		Yes
	31067-1041	B		
	31067-1042	C		
	31067-1070	A	christmas tree attachment	
	31067-1071	B		
	31067-1072	C		
4	31068-1040	A		
	31068-1041	B		
	31068-1042	C		
	31068-1070	A	christmas tree attachment	
	31068-1071	B		
	31068-1072	C		

Circuits	Order No.	Polarization	Options	Lead-free
5	31072-1040	A		Yes
	31072-1041	B		
	31072-1042	C		
	31072-1070	A	christmas tree attachment	
	31072-1071	B		
	31072-1072	C		
6	31073-1040	A		
	31073-1041	B		
	31073-1042	C		
	31073-1070	A	christmas tree attachment	
	31073-1071	B		
	31073-1072	C		

2.54mm (.100") Pitch H-DAC 64™ Female Receptacle

31067/31068/31072/31073 Single Row



Features and Benefits
- Versatile product selection
- Scoop-proof housing
- Three standard polarizations
- TPA feature
- Positive-lock provides audible click
- Optional clip slot feature

Reference Information
Product Specifications: PS-31067-0001 (single row)
PS-31101-0001 (headers)
Packaging: Bulk
Mates With:
Male and Female
Single Row—31067, 31068, 31072 and 31073
Headers—31100 and 31101
Use With: Industry approved male and female terminals
Designed In: Millimeters

Electrical
Voltage: 500V
Current: 10A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 20 Megohms min.

Mechanical
Contact Insertion Force: 30N (6.7 lb)
Contact Retention to Housing: 30N (6.7 lb)
Mating Force: 45N (10.1 lb)
Unmating Force: 45N (10.1 lb)
Durability: 10 cycles

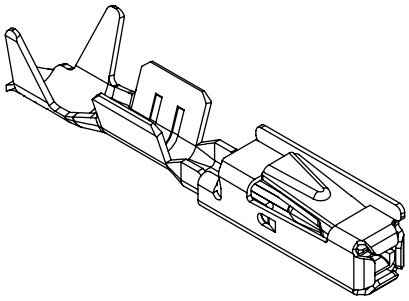
Physical
Housing: Glass filled SPS
Contact: Copper Alloy
Plating: Overplating—Tin
Underplating—Nickel

Circuits	Order No.	Polarization	Lead-free
3	31067-1010	A	Yes
	31067-1011	B	
	31067-1012	C	
4	31068-1010	A	
	31068-1011	B	
	31068-1012	C	

Circuits	Order No.	Polarization	Lead-free
5	31072-1010	A	Yes
	31072-1011	B	
	31072-1012	C	
6	31073-1010	A	
	31073-1011	B	
	31073-1012	C	

2.54mm (.100") Pitch MOX Crimp Terminal

98658
Female



Features and Benefits
- Two-piece laser-welded terminal
- Two points of contact
- For wire termination
- Two-piece terminal with sleeve design
- Steel sleeve protects mating area
- Polarization rib for terminal orientation during assembly
- Long contact area provides secure electrical connection

Reference Information
Product Specification: PS-98658-005
Packaging: Reel
Mates With: 0.635mm (.025") square pin terminals
Use With: MOX housings and various other connectors
Designed In: Millimeters

Electrical
Voltage: 14V DC
Current: 6.5A
Contact Resistance: 8 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 100 Megohms min.

Mechanical
Contact Insertion Force: 3.0N max.
Contact Retention to Housing: 40.0N min.
Wire Pull-Out Force: 50N min. on 0.22mm^2 wire
Insertion Force to Housing: 5.0N max. (for unsealed); 10.0N max. (for sealed connector)
Durability: 20 cycles

Physical
Contact: High Conductive Copper Alloy, 0.635mm (.025"), square
Plating: Pre-plated
Contact Area: Tin—1 to 3µm min.; Gold—0.4µm min.
Underplating: Nickel (for Gold-plated version only)

Order No.	Plating	Wire Size (AWG)	Wire size (mm^2)	Wire Insulation Diameter	Wire Strip Length	Lead-free
98658-1211	Tin	20-24	0.22-0.60	1.20-1.80mm (.047-.071")	3.00mm	Yes
98658-1212		18-22	0.75	1.70mm (.067") max	3.50mm	
98658-1213		20-24	0.22-0.50	1.20-1.50mm (.047-.060")	3.00mm	
98658-1221	Select Gold	20-24	0.22-0.60	1.20-1.80mm (.047-.071")		
98658-1222		18-22	0.75	1.70mm (.067") max	3.50mm	
98658-1223		20-24	0.22-0.50	1.20-1.50mm (.047-.060")	3.00mm	
98658-1231	2 points Select Gold	20-24	0.22-0.60	1.20-1.80mm (.047-.071")		
98658-1232		18-22	0.75	1.70mm (.067") max	3.50mm	
98658-1233		20-24	0.22-0.50	1.20-1.50mm (.047-.060")	3.00mm	

2.54mm (.100") Pitch MOX Receptacle Housing

98193
Single Row, Vertical With TPA

Features and Benefits
- Reusable one-piece secondary locking
- Inertial locking feature
- One-piece design with integrated secondary lock for easy use

Reference Information
Packaging: Bag
Use With: 98658
Designed In: Millimeters

Electrical
Voltage: 14V DC
Current: 6.0A
Contact Resistance: 8 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 100 Megohms min.

Mechanical
Contact Insertion Force: 5.0N (1.12 lb) max.
Contact Retention to Housing: 40.0N (9 lb) min.
Wire Pull-Out Force: 100.0N (22.5 lb) min.
Mating Force: 60.0N (13.5 lb) max.
Unmating Force: 60.0N (13.5 lb) max.
Durability: 20 cycles (with Tin-plated terminal)

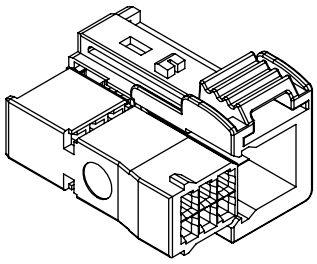
Physical
Housing: Black PA Polyamide (nylon) 6, UL 94V-2

Circuits	Order No.	Lead-free
6	98193-0001	Yes

2.54mm (.100") Pitch MOX Receptacle Housing

98298

2 by 3 Circuits Dual Row, Vertical Breakable



Features and Benefits

- Reusable two-piece secondary locking feature
- Inertial locking feature
- Six color and mechanical codings
- One-piece design with integrated secondary lock for easy use

Reference Information

Packaging: Bag
Mates With: Industry-standard interface
Use With: 98658
Designed In: Millimeters

Electrical

Voltage: 14V DC
Current: 6.0A
Contact Resistance: 8 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force: 5.0N (1.12 lb) max.
Contact Retention to Housing: 40.0N (9 lb) min.
Wire Pull-Out Force: 100N (22.5 lb) min.
Mating Force: 65.0N (14.6 lb) max.
Unmating Force: 60.0N (13.5 lb) max.
Durability: 20 cycles (with Tin-plated terminals)

Physical

Housing: Glass-filled PBT Polyester, HB, UL 94-HB

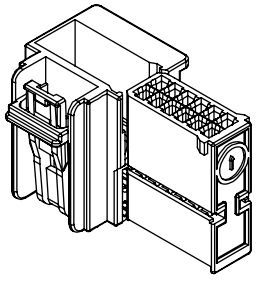
Circuits	Order No.	Color	Lead-free
6	98298-0001	Black	Yes
	98298-0002	White	
	98298-0003	Green	
	98298-0004	Brown	
	98298-0005	Gray	
	98298-0006	Blue	

www.molex.com/product/mox.html

2.54x2.54mm (.100"x.100") Pitch MOX Receptacle Housing

94552

Dual Row, Breakable 8/12 Circuits



Features and Benefits

- One-piece housing and secondary locking
- Breakable configuration
- Ease of use
- MQS compatible
- According to USCAR standard

Reference Information

Packaging: PK-94552-001
Mates With: 31341 series
Use With: 98658 series terminals
Designed In: Millimeters

Electrical

Voltage: 125 V RMS
Current: 7.5A max.
Contact Resistance: 7 milliohms max.
Dielectric Withstanding Voltage: 1000 V max.
Insulation Resistance: 10 Megohms min.

Mechanical

Contact Insertion Force into Housing: 15N (3.4 lb) max.
Contact Retention to Housing: 60N (13.5 lb) max.
Wire Pull-Out Force: 50N min.
Mating Force: 75N min.
Unmating Force: 75N min.
Durability: 20 cycles

Physical

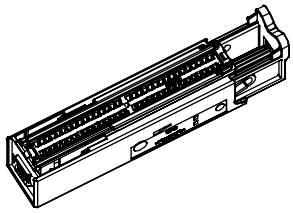
Housing: PBT 20% G.F.

Circuits	Order No.	Polarization	Lead-Free
8	94552-9008	B	Yes
12	94552-9012	A	

2.54mm (.100") Pitch MOX Receptacle Housing

98615

Dual Row, 64 Circuits



Features and Benefits

- Slide locking assistance
- Design compatible with wire version (0986151002) or FFC version (0986151001)
- Wire cap available
- Secondary locking

Reference Information

Packaging: Tray
Mates With: 98317, 98599 and 98580
Use With: 98658 (wire terminal) or 98194 (FFC terminal)
Designed In: Millimeters

Electrical

Voltage: 14V DC
Current: 6.0A max.
Contact Resistance: 8 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force: 5.0N (1.12 lb) max.
Contact Retention to Housing (TPA inactive): 40.0N (9 lb) min.
Wire Pull-Out Force: 100N (22.5 lb) min.
Mating Force: 80.0N (18.0 lb) max.
Unmating Force: 80.0N (18.0 lb) max.
Durability: 20 cycles (with Gold/Tin plated terminals)

Physical

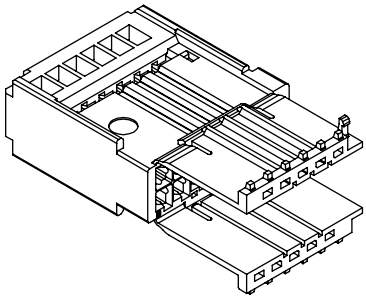
Housing: PBT Polyester, Glass-filled, UL 94-HB

Order No.	Version	Lead-Free
98615-1001	Flex	Yes
98615-1002	Wire	

www.molex.com/mox.html

2.54mm (.100") Pitch MOST Receptacle Housing

98684



Features and Benefits

- TPA integrated by filme hinge function
- Fits into 98681-1001 and 98681-1002
- Keying prevents wrong insertion into housing frame
- Terminal cavities designed for Molex MOX 0.64mm (.025") terminals
- Conforms to USCAR-2 Rev. 3

Reference Information

Product Specification: PS-98681-001
Packaging: Box
Mates With: 91500, 91547, 98681
Use With: 98658

Electrical

Voltage: 9 to 16V DC (operating normal)
Current: 7.5A max.
Contact Resistance: 100 milliohms max.

Mechanical

Contact Insertion Force: 30.00N (6.74 lb)
Contact Retention to Housing: 60.00N (13.49 lb)
Mating Force: 75.00N (16.86 lb)
Unmating Force: 75.00N (16.86 lb)
Durability: 11 mating cycles

Physical

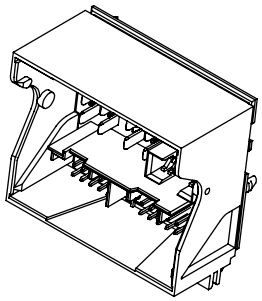
Housing: PBT Polyester, UL 94-HB

Circuits	Order No.	Color Coding	Key	Lead-free
12	98684-0001	Black	Key A	Yes
	98684-0002	Natural	Key B	

2.54mm (.100") Pitch MOST Junction Box

91616

Vertical, without 10.0A Fuse



Circuits	Order No.	Lead-free
40	91616-0001	Yes

Features and Benefits

- Complies with MOST specifications and is therefore a drop-in replacement part
- Fuse options available
- Mini-PCB assembly available
- Lead-free

Reference Information

Product Specification: PS-91616-001
Packaging: Tray
Designed In: Millimeters

Electrical

Voltage: 16V
Current: 6.0A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 500 Megohms min.

Mechanical

Insertion Force to PCB: 70.0N (15.74 lb)
Durability: 30 cycles

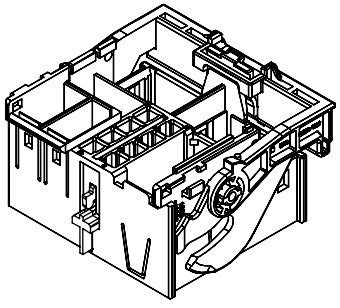
Physical

Housing: Glass-filled PA Polyamide (nylon), UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Tin
PCB Thickness: 1.6mm (0.62")

5.08mm (.200") Pitch MOST Frame Receptacle Housing

98681

With Lever, 40 Electrical and 4 Optical Circuits (Optional)



Order No.		Lead-free
With Cable Cover	Without Cable Cover	
98681-1001	98681-1002	Yes

Features and Benefits

- MOST corporation interface
- Plastic optical fiber option integrated
- Version with feature to receive wire cap/strain relief 98660-0001
- Conforms to USCAR-2 Rev. 3 and Ford SDS Rev. 10

Reference Information

Product Specification: PS-98681-001
Packaging: Box
Mates With: 91616, 91574
Use With: 98660, 98684, 98685
Designed In: Millimeters

Electrical

Voltage: 9 to 16V DC (operating normal)
Current: 24.0A max.
Contact Resistance: 5 milliohms max.

Mechanical

Contact Insertion Force: <30.00N (6.74 lb)
Contact Retention to Housing: >60.00N (13.49 lb)
Mating Force: 75.00N (16.86 lb)
Unmating Force: 75.00N (16.86 lb)
Durability: 11 mating cycles

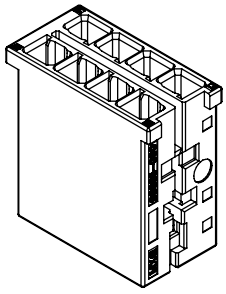
Physical

Housing: Black glass-filled SPS/PA 6/6, UL 94-HB

5.08mm (.200") Pitch MOST Receptacle Power Connector

98685

With TPA Lock



Circuits	Order No.	Lead-free
8	98685-1001	Yes

Features and Benefits

- Fits to MOST frame receptacle housing 98681-1001 and 98681-1002
- Delivered with Terminal Position Assurances (TPA) in pre-lock position
- Conforms to USCAR-2 Rev. 3 and Ford SDS Rev. 10

Reference Information

Product Specification: PS-98681-001
Packaging: Box
Mates With: 91500, 91547 and 98681
Use With: 2.80mm (.110") MPQ terminals

Electrical

Voltage: 9 to 16V DC (operating normal)
Current: 24.0A max.
Contact Resistance: 5 milliohms max.

Mechanical

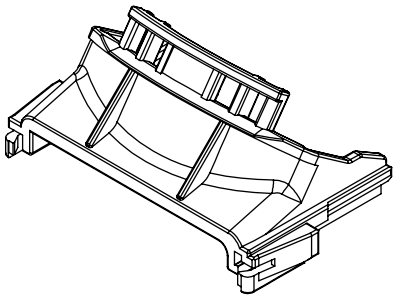
Contact Insertion Force: 30.00N (6.74 lb) min.
Contact Retention to Housing: 60.00N (13.49 lb) max.
Mating Force: 75.00N (16.86 lb)
Unmating Force: 75.00N (16.86 lb)

Physical

Housing: Black glass-filled SPS Crystalline Polymer, UL 94-HB

5.08mm (.200") Pitch MOST Strain Relief Cable Cover

98660



Order No.	Lead-free
98660-0001	Yes

Features and Benefits

- Provides 45˚ wire
- Positive clip
- Conforms to USCAR-2 Rev. 3 and Ford SDS Rev. 10

Reference Information

Product Specification: PS-98681-001
Packaging: Bag
Use With: 98681-1001

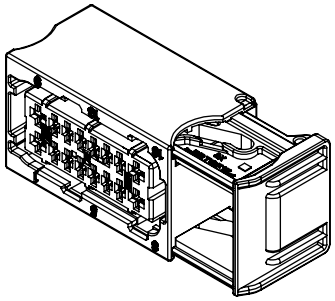
Physical

Housing: Black PBT Polyester

3.33mm (.131")/ 6.00mm (.236") Pitch NSCC Hybrid Inline Receptacle Housing

98273

Dual Row, Vertical with Slide



Features and Benefits

- Secondary locking for 1.54 and 2.8mm (.060 and .110") terminals
- Slide to reduce mating force
- Right slide orientation
- Hole feature to seal the slide in locked position
- Six mechanical codings correlating with 6 housing colors

Reference Information

Packaging: Box
Mates With: 98276
Use With: 98897 and 98898
Designed In: Millimeters

Electrical

Voltage: 13.5V
Current:
1. 50mm—7.0A max. at 85˚C crimped on 2.0mm² wire
2. 80mm—15.0A max. at 85˚C crimped on 4.0mm² wire

Dielectric Withstanding Voltage: 1000V min.
Insulation Resistance: 200 Megohms min.

Mechanical

Contact Insertion Force: 1.5mm (.060")—5.0N max.
2.8mm (.110")—8.0N max.
Contact Retention to Housing: 1.5mm (.060")—100.0N min.
2.8mm (.110")—100.0N min.
Mating Force: 60.0N max.
Unmating Force: 20.0N min.
Normal Force: 150.0N min.
Durability: 20 cycles

Physical

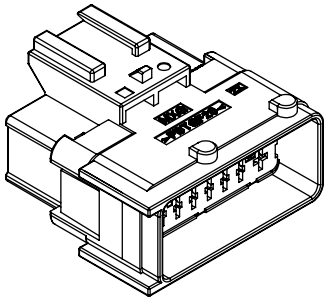
Housing: Glass-filled PBT Polyester, UL 94-HB

Circuits	Order No.	Color	Lead-free
16	98273-1001	Black	Yes
	98273-1002	Green	
	98273-1003	Blue	
	98273-1004	White	
	98273-1005	Brown	
	98273-1006	Gray	

3.33mm (.131")/ 6.00mm (.236") Pitch NSCC Hybrid Inline Plug Housing

98276

Dual Row, Vertical



Features and Benefits

- Secondary locking for 1.5 and 2.8mm (.060 and .110") terminals
- Six mechanical codings correlating with 6 housing colors
- Clip feature for standard fir tree clip

Reference Information

Packaging: Box
Mates With: 98273
Use With: 1.5 and 2.8mm blade terminals
Designed In: Millimeters

Electrical

Voltage: 13.5V
Dielectric Withstanding Voltage: 1000V min.
Insulation Resistance: 200 Megohms min.

Mechanical

Contact Insertion Force: 1.5mm (.060")—5.0N max.
2.8mm (.110")—8.0N max.
Contact Retention to Housing: 1.5mm (.060")—100.0N min.
2.8mm (.110")—100.0N min.
Mating Force: 60.0N max.
Unmating Force: 20.0N min.
Normal Force: 150N min.
Durability: 20 cycles

Physical

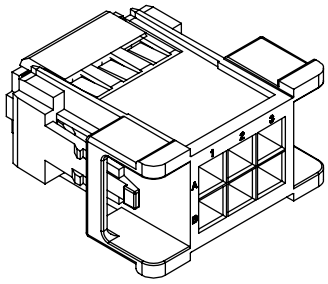
Housing: Glass-filled PBT Polyester, UL 94-HB

Circuits	Order No.	Color	Lead-free
16	98276-1001	Black	Yes
	98276-1002	Green	
	98276-1003	Blue	
	98276-1004	White	
	98276-1005	Brown	
	98276-1006	Gray	

5.00mm (.197") Pitch NSCC Wire-to-Board Receptacle Housing

98438

Vertical, with Bridges For 2.80mm (.110") Tab



Features and Benefits

- Designed for 2.80mm (.110") terminals from Molex
- Secondary locking
- Six mechanical codings available
- Two bridges to avoid damaging of latches
- Unsealed connector system

Reference Information

Packaging: Box
Mates With: Any 2.80mm (.110") header
Use With: 98898 2.80mm (.110") UCC terminals
Designed In: Millimeters

Electrical

Current: 15.0A max. @ 85°C
Dielectric Withstanding Voltage: 1000V AC or 1400V DC
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force: 10.0N (2.25 lb) max.
Contact Retention to Housing: 80.0N (17.98 lb) min.
Mating Force: 60.0N (13.49 lb) max.
Unmating Force: 150.0N (33.72 lb) max.

Physical

Housing: PBT Polyester, UL 94-HB

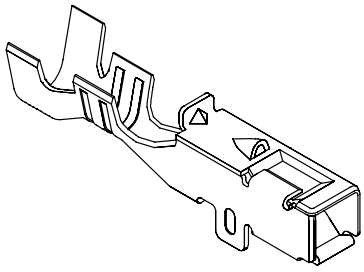
Circuits	Order No.	Color	Lead-free
6	98438-1001	Natural	Yes
	98438-1002	Black	
	98438-1003	Gray	
	98438-1004	Blue	
	98438-1005	Brown	
	98438-1006	Red	

www.molex.com

4.00mm (.157") Pitch OBD-II Wire-to-Wire Terminal

50420

Female



Features and Benefits

- Two-point contact design provides a redundant electrical interface
- Accepts retainer for additional terminal retention

Reference Information

Product Specification: PS-51115-001
Packaging: Reel
Mates With: 57964
Use With: 51115 and 51116
Designed In: Millimeters

Electrical

Voltage: 30V

Current:

Wire Size	Current
AVS.AVSS 0.3	4A
AVS.AVSS.CAVS 0.5	5A
AVS.AVSS.CAVS 0.85	6A

Contact Resistance: 100 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500V DC 100 Megohms min.

Physical

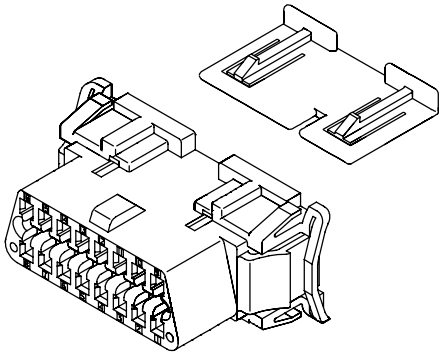
Contact: Phosphor Bronze
Plating: Tin
Insulation Diameter: 1.60 to 2.30mm (.024 to .091")

Order No.	Wire Range (mm²)	Lead-free
50420-8000	AVS 0.3-0.5	Yes
	AVS 0.30f-0.75f	
	AVSS 0.50-0.85	
	AVSS 0.50f-0.75f	
	CAVS 0.50-0.85	

4.00mm (.157") Pitch OBD-II Wire-to-Wire Housing

51115

Female, Panel Mount Type



Circuits	Order No.
16	51115-1601
	51115-1611

Features and Benefits

- Size 16 circuits only
- SAE J1962 standard for no board diagnostic
- Panel mount type

Reference Information

Product Specification: PS-51115-001
Packaging: Bag
Mates With: 51117 TPA, 68503 (Housing, Cover, CPA), 68154 (Dummy Plug)
Use With: 50420
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 6.0A max.
Contact Resistance: 100 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500V DC 100 Megohms min.

Mechanical

Contact Insertion Force: 9.8N (2.2 lb)
Contact Retention to Housing: 80.0N min. (with 51117)
Wire Pull-Out Force:

AVS 0.3	58.8N
AVS 0.5	88.2N
AVS 0.75F	107.8N
AVS 0.85	117.6N

Mating Force: 142N max.
Unmating Force: 88.0N max.
Durability: 200 cycles

Physical

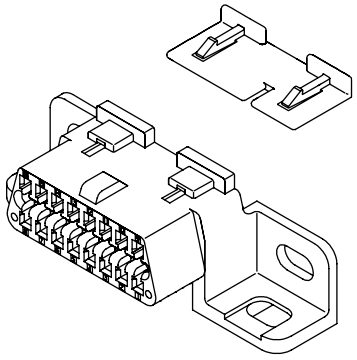
Housing: Polyester, UL 94V-0
TPA: Polyester

www.molex.com/customer.html?seriesNumber=51115

4.00mm (.157") Pitch OBD-II Wire-to-Wire Housing

51116

Female, Screw Mount Type



Circuits	Order No.
16	51116-1601
	51116-1611

Features and Benefits

- Size 16 circuits only
- SAE J1962 standard for no board diagnostic
- Screw mount type

Reference Information

Product Specification: PS-51115-001
Packaging: Bag
Mates With: 51118 TPA, 68503 (Housing, Cover, CPA), 68154 (Dummy Plug)
Use With: 50420
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 6.0A max.
Contact Resistance: 100 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500V DC 100 Megohms min.

Mechanical

Contact Insertion Force: 9.8N (2.2 lb)
Contact Retention to Housing: 80.0N min. (with 51117)
Wire Pull-Out Force:

AVS 0.3	58.8N
AVS 0.5	88.2N
AVS 0.75F	107.8N
AVS 0.85	117.6N

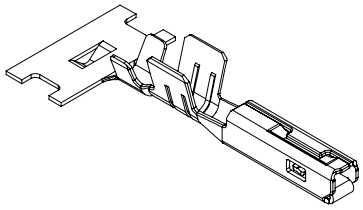
Mating Force: 142N max.
Unmating Force: 88.0N max.
Durability: 200 cycles

Physical

Housing: Polyester, UL 94V-0
TPA: Polyester

1.50mm (.060") Pitch MX150™ Terminals

33001/33012
Female
Mat Sealed



Features and Benefits
- Meets USCAR performance testing
- Low insertion force
- Multiple plating options
- Strong crimps
- Accommodates SAE and metric wires
- Sealed and unsealed versions
- Lead free

Reference Information
Packaging: Reel
Use With: MX150 plastic series 33471, 33472 and 33476
Mates With: 33012 and 33001
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 22.0A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 20 Megohms min.

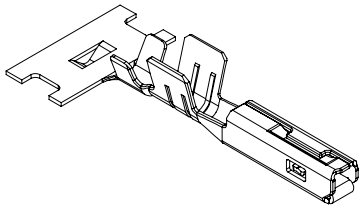
Mechanical
Contact Insertion Force: 3.0N average
Wire Pull-Out Force: 14 AWG—180N min.
22 AWG—70N
Mating Force: 3.0N average
Unmating Force: 3.0N average
Normal Force: 6.0N average

Physical
Contact: Copper Alloy
Plating: Tin, Gold or Silver
Wire Gauge: 14 to 22 AWG (max. O.D. = 2.49mm)

Order No.		Plating	Wire Gauge
Right Payoff, B Wound	Left Payoff, D Wound		
33012-2001	33012-3001	Tin	14 to 16 AWG
33012-2002	33012-3002		18 to 20 AWG
33012-2003	33012-3003		22 AWG
33001-2003	33001-3003	Gold	14 to 16 AWG
33001-2004	33001-3004		18 to 20 AWG
33001-2005	33001-3005		22 AWG
33001-4001	33001-5001	Silver	14 to 16 AWG
33001-4002	33001-5002		18 to 20 AWG
33001-4003	33001-5003		22 AWG

1.50mm (.060") Pitch MX150™ Terminals

34081/34083
Female
Cable Sealed



Features and Benefits
- Meets USCAR performance testing
- Low insertion force
- Multiple plating options
- Strong crimps
- Accommodates SAE and metric wires
- Sealed and unsealed versions
- Lead free

Reference Information
Packaging: Reel
Use With: MX150 plastic series 34250 and 34062
Mates With: 34080
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 22.0A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 20 Megohms min.

Mechanical
Contact Insertion Force: 3.0N average
Wire Pull-Out Force: 14 AWG—180N min.
22 AWG—70N
Mating Force: 3.0N average
Unmating Force: 3.0N average
Normal Force: 6.0N average

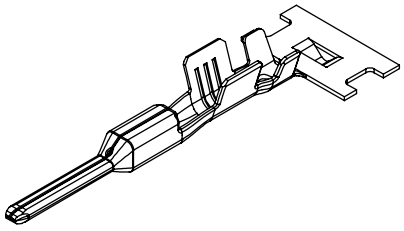
Physical
Contact: Copper Alloy
Plating: Tin, Gold or Silver
Wire Gauge: 14 to 22 AWG (max. O.D. = 2.49mm)

Order No.		Plating	Wire Gauge
Right Payoff, B Wound	Left Payoff, D Wound		
34083-2001	34083-3001	Tin	14 to 16 AWG
34083-2002	34083-3002		18 to 20 AWG
34083-2003	34083-3003		22 AWG
34081-2003	34081-3003	Gold	14 to 16 AWG
34081-2004	34081-3004		18 to 20 AWG
34081-2005	34081-3005		22 AWG
34081-4001	34081-5001	Silver	14 to 16 AWG
34081-4002	34081-5002		18 to 20 AWG
34081-4003	34081-5003		22 AWG

1.50mm (.060") Pitch MX150™ Terminals

33000/33011

Male
Mat Sealed



Features and Benefits

- Meets USCAR performance testing
- Low insertion force
- Multiple plating options
- Strong crimps
- Accommodates SAE and metric wires
- Lead free

Reference Information

Packaging: Reel
Use With: MX150 plastic series 33471, 33472 and 33476
Mates With: 33012 and 33001
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 22.0A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 20 Megohms min.

Mechanical

Contact Insertion Force: 3.0N average
Wire Pull-Out Force: 14 AWG—180N min.
22 AWG—70N
Mating Force: 3.0N average
Unmating Force: 3.0N average
Normal Force: 6.0N average

Physical

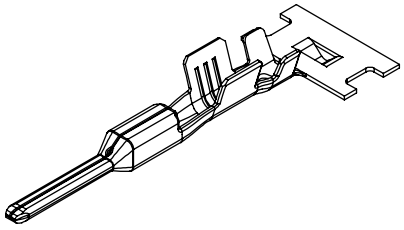
Contact: Copper Alloy
Plating: Tin, Gold or Silver
Wire Gauge: 14 to 22 AWG (max. O.D. = 2.49mm)

Order No.		Plating	Wire Gauge
Right Payoff, B Wound	Left Payoff, D Wound		
33000-0001	33000-1001	Tin	14 AWG
33000-0002	33000-1002		16 to 20 AWG
33000-0003	33000-1003		22 AWG
33011-1002	33011-0002	Gold	14 AWG
33011-1004	33011-0004		16 to 20 AWG
33011-1006	33011-0006		22 AWG
33011-2001	33011-3001	Silver	14 AWG
33011-2002	33011-3002		16 to 20 AWG
33011-2003	33011-3003		22 AWG

1.50mm (.060") Pitch MX150™ Terminals

34080

Male
Cable Sealed



Features and Benefits

- Meets USCAR performance testing
- Low insertion force
- Multiple plating options
- Strong crimps
- Accommodates SAE and metric wires
- Lead free

Reference Information

Packaging: Reel
Use With: MX150 plastic series 34091 and 34615
Mates With: 34083
Designed In: Millimeters

Electrical

Voltage: 250V
Current: 22.0A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 20 Megohms min.

Mechanical

Contact Insertion Force: 3.0N average
Wire Pull-Out Force: 14 AWG—180N min.
22 AWG—70N
Mating Force: 3.0N average
Unmating Force: 3.0N average
Normal Force: 6.0N average

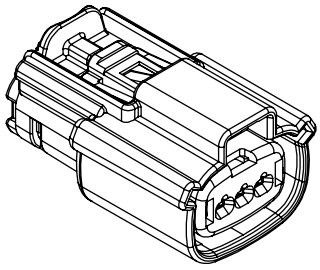
Physical

Contact: Copper Alloy
Plating: Tin
Wire Gauge: 14 to 22 AWG (max. O.D. = 2.49mm)

Order No.		Plating	Wire Gauge
Right Payoff, B Wound	Left Payoff, D Wound		
34080-0001	34080-1001	Tin	14 to 16 AWG
34080-0002	34080-1002		18 to 20 AWG
34080-0003	34080-1003		22 AWG

3.50mm (.138") Pitch MX150™ Sealed Connectors

33471 Female
33481 Male
Single Row



Features and Benefits
- Meets USCAR performance requirements
- Smallest 1.50mm (.059") sealed connector in the market
- Terminal retention is 2x industry standard
- Matte seal design
- Polarization options available
- Available with or without CPA
- Clip slot standard on male side

Reference Information
Packaging: Bulk
Mates With: 33471 and 33481
Use With: MX150 terminals
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 22.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 20 Megohms min.

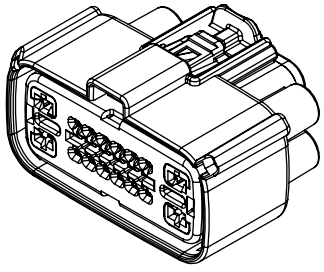
Mechanical
Contact Insertion Force: Less than 15N
Contact Retention to Housing: 110N min.
Wire Pull-Out Force: 90N min.
Mating Force: 75N max.
Unmating Force: 75N max.
Normal Force: Terminal dependent

Physical
Housing: 30% glass filled nylon, UL 94-HB
Contact: Will accommodate Tin, Silver or Gold
Insulation Diameter: 14 AWG UTX 2.49mm O.D. to 22 AWG TXL
Wire Gauge: 14 to 22 AWG and Metric

Circuits	Order No.	Description	Color	CPA Option
3	33471-0301	1x3 Female Polarization A	Black	No
	33471-0302	1x3 Female Polarization B	Gray	
	33471-0306	1x3 Female Polarization A	Black	Yes
	33471-0307	1x3 Female Polarization B	Gray	
	33481-0301	1x3 Male Polarization A	Black	No
	33481-0302	1x3 Male Polarization B	Gray	
4	33471-0401	1x4 Female Polarization A	Black	No
	33471-0402	1x4 Female Polarization B	Gray	
	33471-0406	1x4 Female Polarization A	Black	Yes
	33471-0407	1x4 Female Polarization B	Gray	
	33481-0401	1x4 Male Polarization A	Black	No
	33481-0402	1x4 Male Polarization B	Gray	
6	33471-0601	1x6 Female Polarization A	Black	No
	33471-0602	1x6 Female Polarization B	Gray	
	33471-0606	1x6 Female Polarization A	Black	Yes
	33471-0607	1x6 Female Polarization B	Gray	
	33481-0601	1x6 Male Polarization A	Black	No
	33481-0602	1x6 Male Polarization B	Gray	

3.50mm (.138") Pitch MX150™ Hybrid Sealed Connectors

33476 Female
33486 Male
Dual Row



Features and Benefits
- Combines 1.50 and 2.80mm (.059 and .110") terminals in same connector
- Terminal retention is 2x industry standard
- Polarization options available
- Available with or without CPA
- Clip slot standard on male side

Reference Information
Packaging: Bag
Mates with: 33471 and 33481
Use With: MX150 terminals
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 22.0A for 1.5mm terminals and 25.0A for 2.8mm terminals
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 20 Megohms min.

Mechanical
Contact Insertion Force: Less than 15N
Contact Retention to Housing: 110N min.
Wire Pull-Out Force: 90N min.
Mating Force: 75N max.
Unmating Force: 75N max.
Normal Force: Terminal dependent

Physical
Housing: 30% glass filled nylon, UL 94-HB

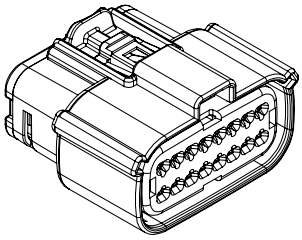
1.5mm terminals
Contact: Tin, Silver or Gold
Insulation Diameter: 14 AWG UTX 2.49mm O.D. to 22 AWG TXL
Wire Gauge: 14 to 22 AWG and Metric

2.8mm terminals
Contacts: Tin
Wire Gauge: 12 to 22 AWG

Order No.	Description	Color	CPA Option
33476-1601	2x8 Female Polarization A	Black	No
33476-1602	2x8 Female Polarization B	Gray	
33476-1606	2x8 Female Polarization A	Black	Yes
33476-1607	2x8 Female Polarization B	Gray	
33486-1601	2x8 Male Polarization A	Black	No
33486-1602	2x8 Male Polarization B	Gray	

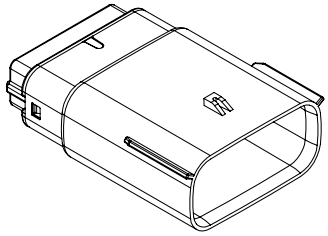
3.50mm (.138") Pitch MX150™ Sealed Connectors

33472 Female
33482 Male
Dual Row



Features and Benefits
- Meets USCAR footprint and performance requirements
- Smallest 1.50mm (.059") sealed connector in the market
- Terminal retention is 2x industry standard
- Matte seal design
- Polarization options available
- Available with or without CPA
- Clip slot standard on male side

Reference Information
Packaging: Bag
Mates With: 33471 and 33481
Use With: MX150 terminals
Designed In: Millimeters



Electrical
Voltage: 250V
Current: 22.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 20 Megohms min.

Mechanical
Contact Insertion Force: Less than 15N
Contact Retention to Housing: 110N min.
Wire Pull-Out Force: 90N min.
Mating Force: 75N max.
Unmating Force: 75N max.
Normal Force: Terminal dependent

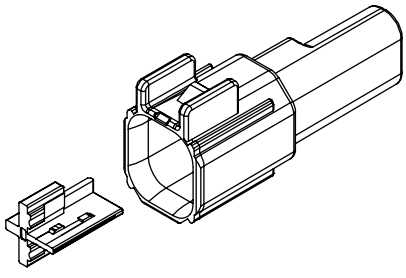
Physical
Housing: 30% glass filled nylon, UL 94-HB
Contact: Will accommodate Tin, Silver or Gold
Insulation Diameter: 14 AWG UTX 2.49mm O.D. to 22 AWG TXL
Wire Gauge: 14 to 22 AWG and Metric

Circuits	Order No.	Description	Color	CPA Option
4	33472-0401	2x2 Female Polarization A	Black	No
	33472-0402	2x2 Female Polarization B	Gray	
	33472-0406	2x2 Female Polarization A	Black	Yes
	33472-0407	2x2 Female Polarization B	Gray	
	33482-0401	2x2 Male Polarization A	Black	No
	33482-0402	2x2 Male Polarization B	Gray	
6	33472-0601	2x3 Female Polarization A	Black	No
	33472-0602	2x3 Female Polarization B	Gray	
	33472-0606	2x3 Female Polarization A	Black	Yes
	33472-0607	2x3 Female Polarization B	Gray	
	33482-0601	2x3 Male Polarization A	Black	No
	33482-0602	2x3 Male Polarization B	Gray	
8	33472-0801	2x4 Female Polarization A	Black	No
	33472-0802	2x4 Female Polarization B	Gray	
	33472-0806	2x4 Female Polarization A	Black	Yes
	33472-0807	2x4 Female Polarization B	Gray	
	33482-0801	2x4 Male Polarization A	Black	No
	33482-0802	2x4 Male Polarization B	Gray	

Circuits	Order No.	Description	Color	CPA Option
12	33472-1201	2x6 Female Polarization A	Black	No
	33472-1202	2x6 Female Polarization B	Gray	
	33472-1206	2x6 Female Polarization A	Black	Yes
	33472-1207	2x6 Female Polarization B	Gray	
	33482-1201	2x6 Male Polarization A	Black	No
	33482-1202	2x6 Male Polarization B	Gray	
16	33472-1601	2x8 Female Polarization A	Black	No
	33472-1602	2x8 Female Polarization B	Gray	
	33472-1606	2x8 Female Polarization A	Black	Yes
	33472-1607	2x8 Female Polarization B	Gray	
	33482-1601	2x8 Male Polarization A	Black	No
	33482-1602	2x8 Male Polarization B	Gray	
20	33472-2001	2x10 Female Polarization A	Black	No
	33472-2002	2x10 Female Polarization B	Gray	
	33472-2006	2x10 Female Polarization A	Black	Yes
	33472-2007	2x10 Female Polarization B	Gray	
	33482-2001	2x10 Male Polarization A	Black	No
	33482-2002	2x10 Male Polarization B	Gray	

5.00mm (.197") Pitch MX150™ Cable Sealed Connectors

34675
Male
Single Row



Features and Benefits
- Compact 1.50mm (.059") terminal connector
- Glass-filled thermoplastic housing and pre-loaded terminal position assurance (TPA)
- Optional clip slot
- Audible and tactile clicks on insertion, extraction and mating
- Accommodates up to 14AWG wire

Reference Information
Product Specification: PS-34062-000
Packaging: Bag
Mates With: 34062 female receptacle
Use With: 34080 male terminals
Designed In: Millimeters

Electrical
Voltage: 500V
Current: 22.0A
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Insulation Resistance: 20 Megohms min.

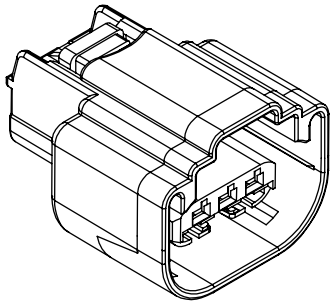
Mechanical
Contact Insertion Force: 30N (6.7 lb) max.
Contact Retention to Housing: 90N (20.2 lb) min.
Mating Force: 45N (10.1 lb)
Unmating Force: 45N (10.1 lb)
Durability: 10 cycles

Physical
Housing: Nylon 6, 30% glass filled

Circuits	Order No.	Clip Slot	Lead-free
2	34675-0001	No	Yes
	34675-0002		
	34675-0003	Yes	
	34675-0004		

4.50mm (.177") Pitch MX150™ Cable Sealed Connector

34250
Single Row



Features and Benefits
- Compact 1.50mm (.059") terminal connector
- Meets USCAR footprints
- Uses cable sealed terminals
- Available with or without CPA
- Polarization options available
- Single and dual key options

Reference Information
Packaging: Bag
Mates With: Direct connect only
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 15.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 20 Megohms min.

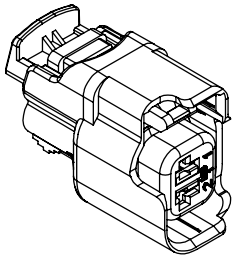
Mechanical
Contact Insertion Force: Less than 15N
Contact Retention to Housing: 100N min.
Wire Pull-Out Force: 90N min.
Mating Force: Less than 45N
Unmating Force: Less than 45N
Normal Force: Terminal dependent

Physical
Housing: PBT + 10% glass filled, UL 94-HB
Contact: Tin or Gold
Wire Gauge: 16 to 22 AWG

Order No.	Description	Color	CPA
34250-0001	1x3 Dual Key Polarization A	Black	Yes
34250-0002	1x3 Dual Key Polarization B	Gray	
34250-0003	1x3 Dual Key Polarization C	Brown	
34250-0004	1x3 Dual Key Polarization D	Green	
34250-0017	1x3 Dual Key Polarization A	Black	No
34250-0018	1x3 Dual Key Polarization B	Gray	
34250-0019	1x3 Dual Key Polarization C	Brown	
34250-0020	1x3 Dual Key Polarization D	Green	
34250-0033	1x3 Single Key Polarization A	Black	Yes
34250-0034	1x3 Single Key Polarization B	Gray	
34250-0035	1x3 Single Key Polarization C	Brown	
34250-0036	1x3 Single Key Polarization D	Green	
34250-0049	1x3 Single Key Polarization A	Black	No
34250-0050	1x3 Single Key Polarization B	Gray	
34250-0051	1x3 Single Key Polarization C	Brown	
34250-0052	1x3 Single Key Polarization D	Green	

5.00mm (.197") Pitch MX150™ Cable Sealed Connector

34062
Single Row



Features and Benefits
- Compact 1.50mm (.059") terminal connector
- Meets USCAR footprints
- Uses cable sealed terminals
- Available with or without CPA
- Polarization options available

Reference Information
Packaging: Bag
Mates With: Direct connect only
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 15.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 20 Megohms min.

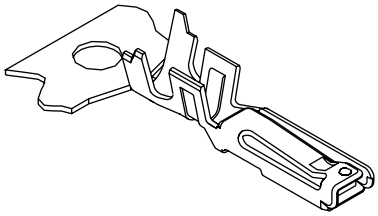
Mechanical
Contact Insertion Force: Less than 15N
Contact Retention to Housing:100N min.
Wire Pull-Out Force:90N min.
Mating Force:Less than 45N
Unmating Force:Less than 45N
Normal Force:Terminal dependent

Physical
Housing: PBT + 10% glass filled, UL 94-HB
Contact: Tin or Gold
Wire Gauge: 16 to 22AWG

Order No.	Description	Color	CPA
34062-0001	1x2 Polarization A	Black	No
34062-0002	1x2 Polarization B	Gray	
34062-0003	1x2 Polarization C	Black	
34062-0004	1x2 Polarization D		
34062-0005	1x2 Polarization A	Black	Yes
34062-0006	1x2 Polarization B	Gray	
34062-0007	1x2 Polarization C	Black	
34062-0008	1x2 Polarization D		
34062-0009	1x2 Polarization D	Gray	No
34062-0010	1x2 Polarization D	Gray	Yes

2.50mm (.098") Pitch Splash Proof Wire-to-Wire Crimp Terminal

50148



Order No.	Packaging	Lead-free
50148-8000	Reel	Yes
50148-8100	Bag	

Features and Benefits

- Unique spring-beam design provides high pressure and small deflection for high vibration applications
- Stabilizing bump at tip keeps terminal in place during mating

Reference Information

Packaging: Reel or bag
Use With: 52213
Designed In: Millimeters

Electrical

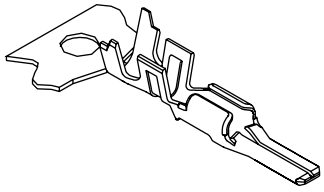
Voltage: 18V max. (2 circuits)
25V max. (3-4 circuits)
Current: AVSS/CAVS 0.50 sq. (20 AWG)—4.0A
AVSS/CAVS 0.30 sq. (22 AWG)—3.0A

Physical

Contact: Phosphor Bronze
Plating: Tin
Wire Range: AVSS/CAVS 0.30 sq., 0.50 sq. (20 to 22 AWG)
Insulation Range: 1.40 to 1.70mm
Strip Length: 2.00 to 2.50mm

2.50mm (.098") Pitch Splash Proof Wire-to-Wire Crimp Terminal

50147



Order No.	Packaging	Lead-free
50147-8000	Reel	Yes
50147-8100	Bag	

Features and Benefits

- Seal is in housing to simplify crimping process
- Raised split-beam design provides polarization

Reference Information

Packaging: Reel or bag
Use With: 52266
Designed In: Millimeters

Electrical

Voltage: 18V max. (2 circuits)
25V max. (3-4 circuits)
Current: AVSS/CAVS 0.50 sq. (20 AWG)—4.0A
AVSS/CAVS 0.30 sq. (22 AWG)—3.0A

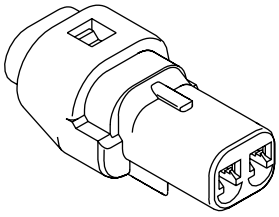
Physical

Contact: Phosphor Bronze
Plating: Tin
Wire Range: AVSS/CAVS 0.30 sq., 0.50 sq. (20 to 22 AWG)
Insulation Range: 1.40 to 1.70mm
Strip Length: 2.00 to 2.50mm

2.50mm (.098") Pitch Splash Proof Wire-to-Wire Receptacle

52213

2-Circuit Version



Circuits	Order No.
2	52213-0211

Features and Benefits

- Size 2 circuits
- JIS D0203 S2 waterproof compliant
- Unique seal stopper design provides low insertion force
- For tight packaging applications
- User-friendly friction lock saves space and protects locking latch area
- Polarizing rib to ensure proper mating

Reference Information

Product Specification: PS-52213-001
Packaging: Tray
Mates With: 52266
Use With: 50148
Designed In: Millimeters

Electrical

Voltage: 18V max.
Current: 4.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 250 Megohms min.

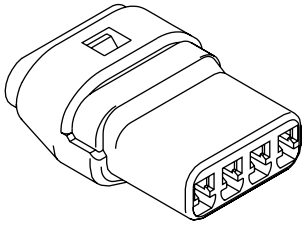
Physical

Housing: Black glass-filled PBT
Cap: Glass-filled PBT
Wire End Seal: Silicone

2.50mm (.098") Pitch Splash Proof Wire-to-Wire Receptacle

52213

3 and 4-Circuit Version



Circuits	Order No.	Housing/Cap Color
3	52213-0311	Black
4	52213-0417	Brown

Features and Benefits

- Sizes 3 and 4 circuits
- JIS D0203 S2 waterproof compliant
- Unique seal stopper design provides low insertion force
- For tight packaging applications
- User-friendly friction lock saves space and protects locking latch area
- One-body wire and seal enables tighter spacing between terminals

Reference Information

Product Specification: PS-52213-002
Packaging: Tray
Mates With: 52266
Use With: 50148
Designed In: Millimeters

Electrical

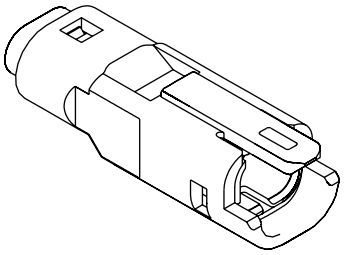
Voltage: 25V max.
Current: 4.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 250 Megohms min.

Physical

Housing/Cap: Glass-filled PBT
Wire End Seal: Silicone

2.50mm (.098") Pitch Splash Proof Wire-to-Wire Plug

52266
2-Circuit Version



Circuits	Order No.
2	52266-0211

Features and Benefits
- Size 2 circuits
- JIS D0203 S2 waterproof compliant
- Unique seal stopper design provides low insertion force
- For tight packaging applications
- User-friendly friction lock saves space and protects locking latch area
- One-body wire and seal enables tighter spacing between terminals

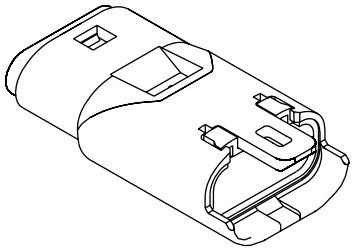
Reference Information
Product Specification: PS-52213-001
Packaging: Tray
Mates With: 52213
Use With: 50147
Designed In: Millimeters

Electrical
Voltage: 18V max.
Current: 4.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 250 Megohms min.

Physical
Housing: Black glass-filled PBT
Cap: Glass-filled PBT
Wire End Seal: Silicone
Seal Stopper: Glass-filled PBT
Seal: Silicone

2.50mm (.098") Pitch Splash Proof Wire-to-Wire Plug

52266
3 and 4-Circuit Version



Circuits	Order No.	Housing/Cap Color
3	52266-0311	Black
4	52266-0417	Brown

Features and Benefits
- Sizes 3 and 4 circuits
- JIS D0203 S2 waterproof compliant
- Unique seal stopper design provides low insertion force
- For tight packaging applications
- User-friendly friction lock saves space and protects locking latch area
- One-body wire and seal enables tighter spacing between terminals

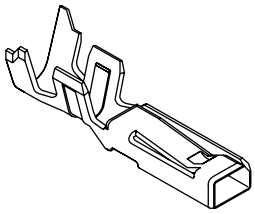
Reference Information
Product Specification: PS-52213-002
Packaging: Tray
Mates With: 52213
Use With: 50147
Designed In: Millimeters

Electrical
Voltage: 25V max.
Current: 4.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 250 Megohms min.

Physical
Housing/Cap: Glass-filled PBT
Wire End Seal: Silicone
Seal Stopper: Glass-filled PBT
Seal: Silicone

2.50mm (.098") Pitch Splash Proof Wire-to-Wire Crimp Terminal

50039



Order No.	Packaging	Lead-free
50039-8000	Reel	Yes
50039-8100	Bag	

Features and Benefits

- Unique spring-beam design provides high pressure and small deflection for high vibration applications

Reference Information

Packaging: Reel or Bag
Use With: 52117
Designed In: Millimeters

Electrical

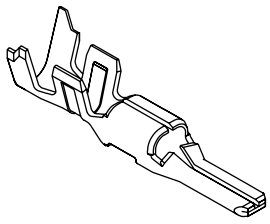
Voltage: 250V
Current: 3.0A

Physical

Contact: Phosphor Bronze
Plating: Tin
Wire Range: AVS 0.30 sq., CAVS 0.50 sq. (20 to 22 AWG)
Insulation Range: 1.80 to 1.90mm
Strip Length: 2.00 to 2.50mm

2.50mm (.098") Pitch Splash Proof Wire-to-Wire Crimp Terminal

50038



Order No.	Packaging	Lead-free
50038-8000	Reel	Yes
50038-8100	Bag	

Features and Benefits

- Seal is in housing to simplify crimping process
- Raised body design provides polarization

Reference Information

Packaging: Reel or Bag
Use With: 52116
Designed In: Millimeters

Electrical

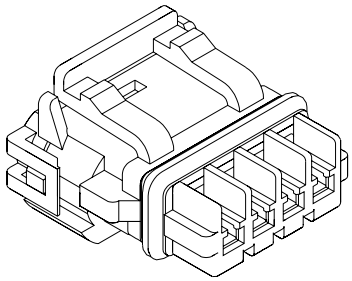
Voltage: 250V max.
Current: 3.0A max.

Physical

Contact: Phosphor Bronze
Plating: Tin
Wire Range: AVS 0.30 sq., CAVS 0.50 sq. (20 to 22 AWG)
Insulation Range: 1.80 to 1.90mm
Strip Length: 2.00 to 2.50mm

2.50mm (.098") Pitch Splash Proof Wire-to-Wire Receptacle Housing

52117



Circuits	Order No.
2	52117-024X
3	52117-034X
4	52117-041X

Note: Replace X with
0 = White color
1 = Black color
2 = Red color (available in 2 and 3 circuits only)

Features and Benefits

- Sizes 2 to 4 circuits
- JIS D0203 S2 compliant
- User friendly friction lock provides secure connection

Reference Information

Product Specification: PS-52117-001 (2 circuits)
PS-52117-003 (3 circuits)
PS-52117-005 (4 circuits)
Packaging: Tray
Mates With: 52116 housing
Use With: 50039 terminal
Designed In: Millimeters

Electrical

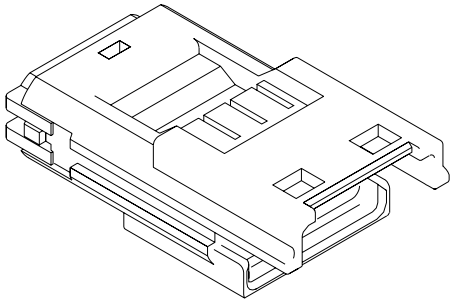
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 250 Megohms min.

Physical

Housing: Glass-filled PBT
Cap: Glass-filled PBT
Seal: Silicon

2.50mm (.098") Pitch Splash Proof Wire-to-Wire Plug Housing

52116



Circuits	Order No.
2	52116-024X
3	52116-034X
4	52116-041X

Note: Replace X with
0 = White color
1 = Black color
2 = Red color (available in 2 and 3 circuits only)

Features and Benefits

- Sizes 2 to 4 circuits
- JIS D0203 S2 compliant
- User friendly friction lock provides secure connection

Reference Information

Product Specification: PS-52117-001 (2 circuits)
PS-52117-003 (3 circuits)
PS-52117-005 (4 circuits)
Packaging: Tray
Mates With: 52117 housing
Use With: 50038 terminal
Designed In: Millimeters

Electrical

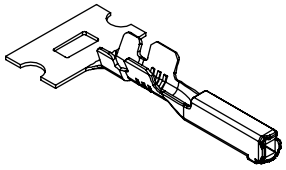
Voltage: 250V max.
Current: 3.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 250 Megohms min.

Physical

Housing: Glass-filled PBT
Cap: Glass-filled PBT
Seal: Silicon

2.54mm (.100") Pitch MX123™ Sealed Connection System 0.64mm Terminal

33467/33468



Features and Benefits

- Precious plating ensures stable contact resistance under extreme temperature and vibration conditions

Reference Information

Packaging: Reel
Mates With: 73- and 80-Circuit Receptacle (Series 34566)
56 Receptacle (Series 34576)

Electrical

Voltage: 500V max.
Current: 0.64mm (.025")—11.0A max.
Contact Resistance: 0.64mm (.025")—20 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Isolation Resistance: 20 Megohms min.

Mechanical

Durability—10 Cycles:
0.64mm (.025")—20 milliohms max.
FCLT (Class 3): 20 milliohms max.
Thermal Shock (Class 3, 100 cycles):
0.64mm (.025")—20 milliohms max.
Mechanical Shock and Vibration Sequence (GMW3191, Electrical):
0.64mm (.025")—20 milliohms max.

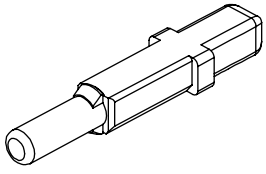
Physical

Contact: Copper Alloy
Terminal Plating:
Contact Area: 0.64mm (.025")—Gold
Underplating: 0.64mm (.025")—Nickel

Order No.	Size (mm)	Plating	Wire Size (AWG)	Payoff Direction
33467-0004	0.64	Gold	22	D
33467-0003				B
33467-0006			18 to 20	D
33467-0005				B
33468-0002		Tin	22	D
33468-0001				B
33468-0004			18 to 20	D
33468-0003				B

2.54mm (.100") Pitch MX123™ Sealed Connection System Cavity Plug

34586



Reference Information

Packaging: Bulk
Use With: 73- and 80-Circuit Receptacle (Series 34566)
56 Circuit Receptacle (Series 34576)

Mechanical

Insertion Force: Less than 40N (9 lb)

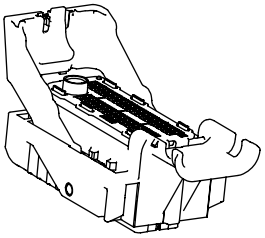
Physical

Material: 30% glass-filled SPS/Nylon Blend

Order No.	Assembly Features	Size (mm)
34586-0001	Lock Tab and Forward Stop	0.64mm terminal

2.54mm (.100") Pitch MX123™ Sealed Connection System Lever Receptacle

34566/34576
Mate-Assist



Features and Benefits

- MX123 was originally designed for on-engine, high-vibration applications in under-hood environments
- Receptacle and header housings with unique mechanical polarization options and unique color coding offer the ability to use multiple connectors on one module without the risk of cross-mating incorrect harness connectors
- Wire dress available in 2 options: 0 and 180˚ orientation which allows for wire-routing design flexibility
- Anti-scooping feature is friendly to "blind-mate" conditions
- Integrated PLR and CPA components reduce assembly complexity
- Lever retention lock on harness connector retains lever in pre-lock position for ease of installation

Reference Information

Packaging: Lever Receptacles: Cell-Pack Partition
Mates With: 73- and 80-Circuit: Headers (Series 31387)
56- Circuit: Header (Series 31386)
Use With: MX64—0.64mm (.025") (Series 33467)

Electrical

Voltage: 500V max.
Current: 2.80mm (.110")—25.0A max.
0.64mm (.025")—11.0A max.
Contact Resistance: 2.80mm (.110")—5 milliohms max.
0.64mm (.025")—20 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Isolation Resistance: 20 Megohms min.

Mechanical

Mating Force: Less than 75N (16.9 lb)
Unmating Force: Less than 75N (16.9 lb)
Connector Retention (Primary Latch): 110N (24.7 lb) min.
Contact Retention to Housing:
2.80mm (.110")—90N (20.2 lb) min.
0.64mm (.025")—75N (16.9 lb) min.
Contact Insertion Force Into Housing: 30N (6.7 lb) max.
Polarization Feature Effectiveness: 220N (49.5 lb) min.
Durability—10 Cycles:
2.80mm (.110")—5 milliohms max.
0.64mm (.025")—20 milliohms max.
PLR Insertion Force: 75N (16.9 lb) max.
PLR Extraction Force: 120N (27.0 lb) max.
CPA Insertion Force: 60N (13.5 lb) max. (unmated), 22N (5.0 lb) max. (fully mated)
CPA Extraction Force: 22N (5.0 lb) max.
FCLT (Class 3): 20 milliohms max.
Thermal Shock (Class 3, 100 cycles):
2.80mm (.110")—5 milliohms max.
0.64mm (.025")—20 milliohms max.
High-Temperature Exposure (Sealing): 48kPa for 15 seconds and submersion for 30 minutes and isolation resistance of 20 Megohms at 500V DC min.
Temperature/Humidity (Sealing): 48kPa for 15 seconds and submersion for 30 minutes and isolation resistance of 20 Megohms at 500V DC min.
Fluid Resistance (Sealing): submersion for 30 minutes and isolation resistance of 100 Megohms at 500V DC min.
Mechanical Shock and Vibration Sequence (GMW3191, Electrical):
2.80mm (.110")—5 milliohms max.
0.64mm (.025")—20 milliohms max.
Ingress Protection (IP-code) Rating: -IP6K7
-IP6K9K

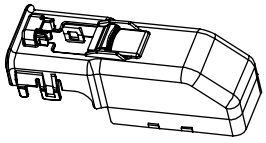
Physical

Housing: 30% glass-filled SPS/Nylon Blend
PLR: 30% Glass Filled SPS/Nylon Blend
Contact: Copper Alloy
Terminal Plating:
Contact Area: 2.80mm (.110")—Tin
0.64mm (.025")—Gold
Underplating: 2.80mm (.110")—Nickel
0.64mm (.025")—Nickel

Order No.	Circuit Size	Key Option	PLR Color
34566-0703	80	G	Blue
34566-0803		H	Gray
34566-0103	73	A	Black
34566-0203		B	Gray
34566-0303		C	Blue
34576-0703	56	G	
34576-0803		H	Gray

2.54mm (.100") Pitch MX123™ Sealed Connection System Wire Dress Cover

34565/34575



Order No.	Assembly Features	Cover for Circuit Sizes
34565-0003	Lever Retention Lock	73 and 80
34575-0003		56

Features and Benefits

- Wire dress available in 2 options: 0 and 180˚ orientation which allows for wire-routing design flexibility

Reference Information

Packaging: Bulk
Use With: 73- and 80-Circuit Receptacle (Series 34566)
56 Circuit Receptacle (Series 34576)

Mechanical

Engage Force: Less than 75N (16.9 lb)
Disengage Force: Less than 110N (16.9 lb)

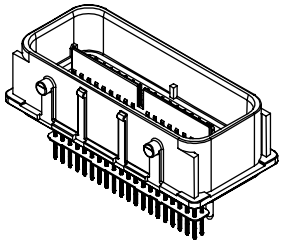
Physical

Material: 30% glass-filled SPS/Nylon Blend

2.54mm (.100") Pitch MX123™ Sealed Connection System Header

31386/31387

Vertical, Top-Load, Solder-tail



Features and Benefits

- MX123 was originally designed for on-engine, high-vibration applications in under-hood environments
- Receptacle and header housings with unique mechanical polarization options and unique color coding offer the ability to use multiple connectors on one module without the risk of cross-mating incorrect harness connectors
- Anti-scooping feature is friendly to "blind-mate" conditions
- PCB tail customization: available with solder-tail or compliant-pin technology allows for PCB design flexibility
- Header placement flexibility allows top or bottom header loading to streamline module manufacturing process
- Precious plating ensures stable contact resistance under extreme temperature and vibration conditions

Reference Information

Vertical Headers: Tray
Mates With: 73- and 80-Circuit Receptacle (Series 34566)
56 Receptacle (Series 34576)
Use With: MX64—0.64mm (.025") (Series 33467)

Electrical

Voltage: 500V max.
Current: 2.80mm (.110")—25.0A max.
0.64mm (.025")—11.0A max.
Contact Resistance: 2.80mm (.110")—5 milliohms max.
0.64mm (.025")—20 milliohms max.
Dielectric Withstanding Voltage: 1500V AC
Isolation Resistance: 20 Megohms min.

Mechanical

Mating Force: Less than 75N (16.9 lb)
Unmating Force: Less than 75N (16.9 lb)
Connector Retention (Primary Latch): 110N (24.7 lb) min.
Polarization Feature Effectiveness: 220N (49.5 lb) min.
Durability—10 Cycles:
2.80mm (.110")—5 milliohms max.
0.64mm (.025")—20 milliohms max.
FCLT (Class 3): 20 milliohms max.
Thermal Shock (Class 3, 100 cycles):
2.80mm (.110")—5 milliohms max.
0.64mm (.025")—20 milliohms max.
High-Temperature Exposure (Sealing): 48kPa for 15 seconds and submersion for 30 minutes and isolation resistance of 20 Megohms at 500V DC min.
Temperature/Humidity (Sealing): 48kPa for 15 seconds and submersion for 30 minutes and isolation resistance of 20 Megohms at 500V DC min.
Fluid Resistance (Sealing): submersion for 30 minutes and isolation resistance of 100 Megohms at 500V DC min.
Mechanical Shock and Vibration Sequence (GMW3191, Electrical): 2.80mm (.110")—5 milliohms max.
0.64mm (.025")—20 milliohms max.

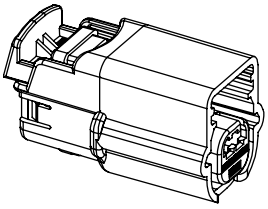
Physical

Housing: 30% glass-filled PBT
Contact: Copper Alloy
Terminal Plating:
Contact Area: 2.80mm (.110")—Tin
0.64mm (.025")—Gold
Underplating: 2.80mm (.110")—Nickel
0.64mm (.025")—Nickel

Order No.	Plating	Circuit Size	Key Option	Colors
31387-4001	Select Gold	80	G	Blue
31387-4009			H	Gray
31387-2014		73	A	Black
31387-2002			B	Gray
31387-2003			C	Blue
31386-2001		56	G	
31386-2002			H	Gray

2.54mm (.100") Pitch MX64™ Sealed Connectors

31403
Single Row Female



Features and Benefits
- Meets all USCAR footprints and testing requirements
- Matte seal design
- Available with or without CPA
- Polarization options available

Reference Information
Packaging: Bag
Mates With: Direct connect only
Designed In: Millimeters

Electrical
Voltage: 250V
Current: 11.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 20 Megohms min.

Mechanical
Contact Insertion Force: 30N max.
Contact Retention to Housing: 90N min.
Mating Force: Less than 75N
Unmating Force: Less than 75N

Physical
Housing: Glass-filled PBT
Contact: Tin or Gold
Wire Gauge: 18 to 22 AWG

Order No.		Rows/Circuits	Polarization	Color
Without CPA	With CPA			
31403-2100	31403-2110	1x2	A	Black
31403-2200	31403-2210		B	Gray
31403-2300	31403-2310		C	Brown
31403-2400	31403-2410		D	Green
31403-2500	31403-2510		B	Black
31403-2600	31403-2610		C	
31403-2700	31403-2710		D	
31403-3100	31403-3110	1x3	A	
31403-3200	31403-3210		B	Gray
31403-3300	31403-3310		C	Brown
31403-3400	31403-3410		D	Green
31403-3500	31403-3510		B	Black
31403-3600	31403-3610		C	
31403-3700	31403-3710		D	
31403-6100	31403-6110	1x6	A	
31403-6200	31403-6210		B	Gray
31403-6300	31403-6310		C	Brown
31403-6400	31403-6410		D	Green
31403-6500	31403-6510		B	Black
31403-6600	31403-6610		C	
31403-6700	31403-6710		D	

CMC Hybrid Connectors
Standard and Power Versions

The CMC connector family from Molex is a sealed, high-density connection system developed for the transportation industry. It is a cost-effective, modular, hybrid system that fits with various headers.

Standard version CMC hybrid connectors hold two different terminal sizes, 0.635mm (.025") and 1.5mm (.059"). Power version CMC hybrid connectors hold three different terminal sizes, 0.635mm (.025"), 1.50mm (.059") and 2.80mm (.110"). Both connector versions run at operating temperatures between -40 and +125˚C.

Market and Applications

CMC can be used in the following markets: cars, trucks, buses, agricultural equipment, motorcycle or marine.

This wire-to-board application can run on Powertrain applications such as Engine Control Units, Gear Boxes and Suspension Controllers but also on Body Electronics like Junction Box, Lightning Control System or Electrical Doors.

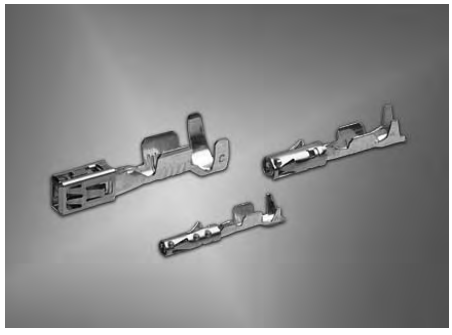
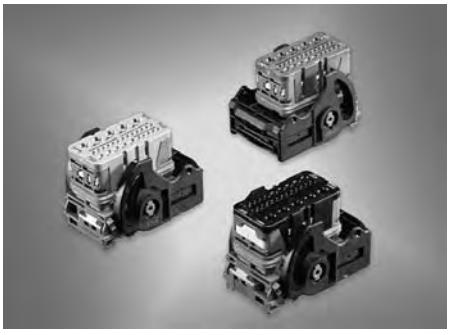
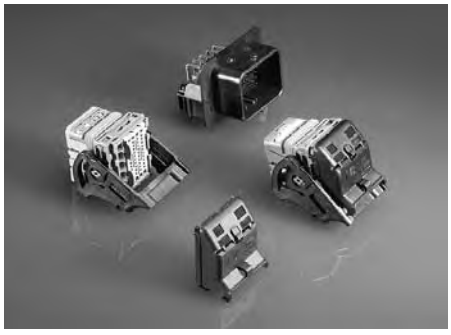
Features

- The CMC modular system offers various color codings associated with mechanical keying for easy mating with the header.
- With an audible click, the integrated locking lever locks the connector to the header.
- A wire cap guides the wires away from the connector either to the right or to the left.
- Robust CP terminals are specially designed to perform in high-conductivity applications and in harsh environments.

Sealing

High performing matte seal technology is used for CP 0.635mm (.025") and CP 1.50mm (.059") terminals. Single wire-seal technology is used for CP 2.8mm (.110") terminals to secure reliable sealing for 2.8mm (.110") CP terminals.



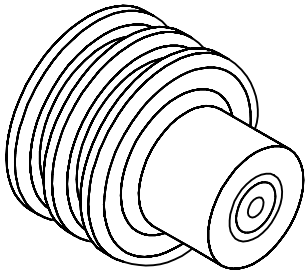





CMC Product Family
Part Number Overview

Circuits	Order No.		Wire Cap	Description	Color	Sealing	Mates With	Terminal Loading
	Left Wire Output	Right Wire Output						
24	64319-2211			CMC Receptacle	black	mat	N/A	18 x CP 0.6 terminal 6 x CP 1.5 terminal
	64319-2218				grey			
		64319-4211			black			
		64319-4218			grey			
			64319-1201	For CMC Receptacle	N/A			N/A
28	64318-1011	64318-3011		Power CMC Receptacle	black	mat	Contact Molex	18 x CP 0.6 terminal 5 x CP 1.5 terminal 5 x CP 2.8 terminal
	64318-1018	64318-3018			grey			
	64318-1019	64318-3019			brown			
			64320-1301	For CMC Receptacle	N/A			
32	64319-1211	64319-3211		CMC Receptacle	black	mat	Contact Molex	24 x CP 0.6 terminal 8 x CP 1.5 terminal
	64319-1216	64319-3216			blue			
	64319-1218	64319-3218			grey			
	64319-1219	64319-3219			brown		80 circuit CMC header 502225-0801	
			64319-1201	For CMC Receptacle	N/A		N/A	N/A
36	64320-2311			CMC Receptacle	black	mat	48 circuit header with 36 circuit loaded 36638-0006/36638-0008	30 x CP 0.6 terminal 6 x CP 1.5 terminal
	64320-2319				brown		48 circuit header with 36 circuit loaded 36638-0007/36638-0009	
		64320-4311			black		48 circuit header with 36 circuit loaded 36638-0006/36638-0008	
		64320-4319			brown		48 circuit header with 36 circuit loaded 36638-0007/36638-0009	
			64320-1301	For CMC Receptacle	N/A		N/A	N/A
48	64320-1311			CMC Receptacle	black	mat	48 circuit CMC header/98 circuit CMC header 36638-0001 up to 36638-0012 48 circuit CMC header 500762-0481	40 x CP 0.6 terminal 8 x CP 1.5 terminal
	64320-1315				green		N/A	
	64320-1318				grey		N/A	
	64320-1319				brown		48 circuit CMC header/96 circuit CMC header 36638-0001 up to 36638-0012 80 circuit CMC header 502225-0801	
		64320-3311			black		48 circuit CMC header/98 circuit CMC header 36638-0001 up to 36638-0012 48 circuit CMC header 500762-0481	
		64320-3315			green		N/A	
		64320-3318			grey		N/A	
		64320-3319			brown		48 circuit CMC header/98 circuit CMC header 36638-0001 up to 36638-0012	
			64320-1301	For CMC Receptacle	N/A		N/A	N/A
53	64321-1011	64321-2011		Power CMC Receptacle	black	mat	53 circuit CMC header 98997-1002	40 x CP 0.6 terminal 8 x CP 1.5 terminal 5 x CP 2.8 terminal
	64321-1018	64321-2018			grey		N/A	
	64321-1019	64321-2019			brown			
			64321-1101	For CMC Receptacle	N/A			N/A

For more details please refer to www.molex.com

CMC Product Family
Part Number Overview



CMC CP Terminal

Order No.	Pitch	Plating	Wire Size	Mates With
64322-1019	0.635mm (.025")	Tin	0.35mm²	32 circuit CMC Receptacle 48 circuit CMC Receptacle 28 circuit CMC Receptacle 53 circuit CMC Receptacle
64322-1029			0.75mm²	
64322-1039			0.5mm²	
64322-1219		Gold 1.27µm	0.75mm²	
64322-1229			0.35mm²	
64322-1239			0.5 mm²	
64322-1339			0.75mm²	
64322-1349			0.35mm²	
64322-1359			0.5 mm²	
64323-1029	1.50mm (.059")	Tin	0.5 to 1mm²	
64323-1039			>1 to 2mm²	
64323-1219		Gold 1.27µm	>1 to 2mm²	
64323-1319			0.5 to 1mm²	
64324-1019	2.80mm (.110")	Tin	>3 to 5mm²	28 circuit CMC Receptacle 53 circuit CMC Receptacle
64324-1029			>2 to 3mm²	
64324-1039			>1 to 2mm²	
64324-1049			0.5 to 1mm²	
64324-1119		Gold 1.27µm	>3 to 5mm²	
64324-1129			>2 to 3mm²	
64324-1139			>1 to 2mm²	
64324-1149			0.5 to 1mm²	

For more details please refer to www.molex.com

CMC Blind Plugs

Order No.	Wire Size	Mates With
64325-1010	0.635mm (.025")	32 circuit CMC Receptacle 48 circuit CMC Receptacle 28 circuit CMC Receptacle 53 circuit CMC Receptacle
64325-1023	1.50mm (.059")	
64325-1091	2.80mm (.110")	

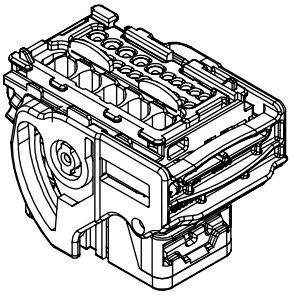
CMC Single Wire Seals

Order No.	Color	Cable Size	Mates With
64325-1162	Red	1.29 to 2.06mm	CMC CP 2.80 (.110") terminal
64325-1175	Green	2.03 to 2.8mm	
64325-1188	Grey	2.8 to 3.5mm	
64325-1196	Blue	3.5 to 4.21mm	

2.54mm (.100")/ 3.50mm (.138")/ 6.75mm (.266") Pitch CMC Wire-to-Board Power Hybrid Connector Receptacle, Plug and Wire Cap

64318

28 Circuit
Left and Right Wire Output



Features and Benefits

- CMC is a sealed, standard and modular connecting system
- Available in several circuit sizes
- Sealed by using high performing matte seal technology
- High density connector
- Hybrid system carrying low, medium and high current
- Used with CMC CP Terminals
- Using CMC CP 2.80 mm terminals for power connecting applications

Reference Information

Product Specification: PS-64318-001
Mates With: 28 circuit CMC header coming soon, please contact Molex for details
Use With:
Terminal: 64322 CMC CP 0.635mm (.025")
64323 CMC CP 1.50mm (.059")
64324 CMC CP 2.80mm (.110")
Plug: 64325-1010 Plug 0.635mm (.025") cavity
64325-1023 Plug 1.50mm (.059") cavity
64325-1091 Plug 2.80mm (.110") cavity
Wire Cap: 64320-1301 CMC Wire Cap for 48 circuit and 28 circuit CMC Receptacle
Designed In: Millimeters

Electrical

Voltage: 250V AC
Current: *
2.5A for CMC CP 0.635mm (.025") terminal (0.75mm² wire)
12.0A for CMC CP 1.50mm (.059") terminal (2.0mm² wire)
21.0A for CMC CP 2.80mm (.110") terminals (5.0mm²)
Contact Resistance:
CMC CP 0.635mm (.025")—8 milliohms max.
CMC CP 1.50mm (.059")—4 milliohms max.
CMC CP 2.80mm (.110")—3 milliohms max.
Dielectric Withstanding Voltage: 1000V AC for 1 minute
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force:
CMC CP 0.635mm (.025")—12.00N max.
CMC CP 1.50mm (.059")—20.00N max.
CMC CP 2.80mm (.110")—25.00N max.
Contact Retention to Housing:
CMC CP 0.635mm (.025")—60.00N min.
CMC CP 1.50mm (.059")—100.00N min.
CMC CP 2.80mm (.110")—100.00N min.
Wire Pull-Out Force: 100.00N min.
Mating Force: 70.00N max.
Unmating Force: 70.00N max.
Durability: 20 mating cycles

Physical

Housing: Glass-filled PBT

* Current tested on a fully loaded connector, current for temperature increase of 40˚C

CMC Power Receptacle				
Circuits	Order No.	Coding	Wire output	Lead-Free
28	64318-1011	Black	Left	Yes
	64318-1018	Grey		
	64318-1019	Brown		
	64318-3011	Black	Right	
	64318-3018	Grey		
	64318-3019	Brown		

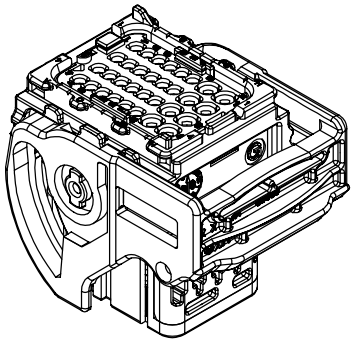
CMC Wire Cap			
Circuits	Order No.	Housing Color	Lead-Free
For 28 circuit (same wire cap as for 48 circuit CMC Receptacle)	64320-1301	Black	Yes

CMC Plug			
Circuits	Order No.	Housing Color	Lead-Free
0.635mm (.025")	64325-1010	White	Yes
1.50mm (.059")	64325-1023	Orange	
2.80mm (.110")	64325-1091	Black	

2.54mm (.100")/ 3.70mm (.146") Pitch CMC Wire-to-Board Hybrid Connector Receptacle, Plug and Wire Cap

64319

32 Circuit
Left and Right Wire Output



Features and Benefits

- CMC is a sealed, standard and modular connecting system
- Available in several circuit sizes
- Sealed by using high performing matte seal technology
- High density connector
- Hybrid system carrying low and medium current
- Used with CMC CP Terminals

Reference Information

Product Specification: PS-64319-001
Mates With:
Single 32 circuit CMC header—please contact Molex
80 circuit CMC header 502225-0801 (32 + 48 circuit)
Use With:
Terminal: 64322 CMC CP 0.635mm (.025")
64323 CMC CP 1.50mm (.059")
Plug: 64325-1010 Plug 0.635mm (.025") cavity
64325-1023 Plug 1.50mm (.059") cavity
Wire Cap: 64319-1201 CMC Wire Cap for 32 circuit CMC Receptacle
Header: 80 circuit CMC header 502225-0801 (32 + 48 circuit)
Designed In: Millimeters

Electrical

Voltage: 250V AC
Current: *
6.0A for CMC CP 0.635mm (.025") terminal (0.75mm² wire)
12.0A for CMC CP 1.50mm (.059") terminal (2.0mm² wire)
Contact Resistance:
CMC CP 0.635mm (.025")—8 milliohms max.
CMC CP 1.50mm (.059")—4 milliohms max.
Dielectric Withstanding Voltage: 1000V AC for 1 minute
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force:
CMC CP 0.635mm (.025")—12.00N max.
CMC CP 1.50mm (.059")—20.00N max.
Contact Retention to Housing:
CMC CP 0.635mm (.025")—60.00N min.
CMC CP 1.50mm (.059")—100.00N min.
Wire Pull-Out Force: 100.00N min.
Mating Force: 70.00N max.
Unmating Force: 70.00N max.
Durability: 20 mating cycles

Physical

Housing: Glass-filled PBT

* Current tested on a 5 terminals loaded connector, current for temperature increase of 40˚C

CMC Receptacle

Circuits	Order No.	Coding	Wire Output	Option	Lead-Free
32	64319-1211	Black	Left		Yes
	64319-1216	Blue			
	64319-1218	Grey			
	64319-1219	Brown			
24	64319-2211	Black		Row 1 closed	
	64319-2218	Grey		Row 4 closed	
32	64319-3211	Black	Right		
	64319-3216	Blue			
	64319-3218	Grey			
	64319-3219	Brown			
24	64319-4211	Black		Row 1 closed	
	64319-4218	Grey		Row 4 closed	

CMC Wire Cap

Circuits	Order No.	Housing Color	Lead-Free
For 32 circuit	64319-1201	Black	Yes

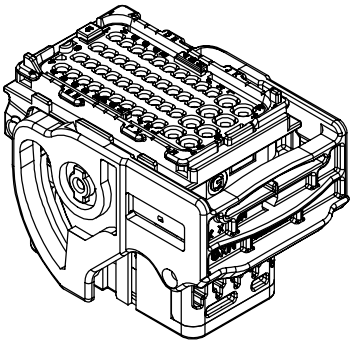
CMC Plug

Circuits	Order No.	Housing Color	Lead-Free
0.635mm (.025")	64325-1010	White	Yes
1.50mm (.059")	64325-1023	Orange	

2.54mm (.100")/ 3.70mm (.146") Pitch CMC Wire-to-Board Hybrid Connector Receptacle, Plug and Wire Cap

64320

48 Circuit
Left and Right Wire Output



Features and Benefits

- CMC is a sealed, standard and modular connecting system
- Several circuit sizes available
- Sealed by using high performing matte seal technology
- High density connector
- Hybrid system carrying low and medium current
- Used with CMC CP Terminals

Reference Information

Product Specification: PS-64319-001
Mates With:
48 circuit CMC header 500762-0481 and 36638 series and 80 circuit CMC header 502225-0801 (32 + 48 circuit)
Use With:
Terminal: 64322 CMC CP 0.635mm (.025")
64323 CMC CP 1.50mm (.059")
Plug: 64325-1010 Plug 0.635mm (.025") cavity
64325-1023 Plug 1.50mm (.059") cavity
Wire Cap: 64320-1301 CMC Wire Cap for 48 circuit and 28 circuit CMC Receptacle
Header: 500762-0481 48 circuit CMC header
36638 48 circuit CMC header
502225-0801 80 circuit CMC header (32 + 48 circuit)
Designed In: Millimeters

Electrical

Voltage: 250 V AC
Current: *
6.0A for CMC CP 0.635mm (.025") terminal (0.75mm² wire)
12.0A for CMC CP 1.50mm (.059") terminal (2.0mm² wire)
Contact Resistance:
CMC CP 0.635mm (.025")—8 milliohms max.
CMC CP 1.50mm (.059")—4 milliohms max.
Dielectric Withstanding Voltage: 1000V AC for 1 minute
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force:
CMC CP 0.635mm (.025")—12.00N max.
CMC CP 1.50mm (.059")—20.00N max.
Contact Retention to Housing:
CMC CP 0.635mm (.025")—60.00N min.
CMC CP 1.50mm (.059")—100.00N min.
Wire Pull-Out Force: 100.00N min.
Mating Force: 70.00N max.
Unmating Force: 70.00N max.
Durability: 20 mating cycles

Physical

Housing: Glass-filled PBT

* Current tested on a 5 terminals loaded connector, current for temperature increase of 40°C

CMC Receptacle					
Circuits	Order No.	Coding	Wire Output	Option	Lead-Free
48	64320-1311	Black	Left		Yes
	64320-1315	Green			
	64320-1318	Grey			
	64320-1319	Brown			
36	64320-2311	Black		Row 1 closed	
	64320-2319	Brown		Row 1 closed	
48	64320-3311	Black	Right		
	64320-3315	Green			
	64320-3318	Grey			
	64320-3319	Brown			
36	64320-4311	Black		Row 1 closed	
	64320-4319	Brown		Row 1 closed	

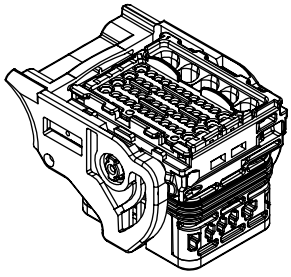
CMC Wire Cap			
Circuits	Order No.	Housing Color	Lead-Free
For 48 circuit	64320-1301	Black	Yes

CMC Plug			
Circuits	Order No.	Housing Color	Lead-Free
0.635mm (.025")	64325-1010	White	Yes
1.50mm (.059")	64325-1023	Orange	

2.54mm (.100")/ 3.50mm (.138")/ 7.00mm (.276") Pitch CMC Wire-to-Board Power Hybrid Connector Receptacle, Plug and Wire Cap

64321

53 Circuit
Left and Right Wire Output



Features and Benefits

- CMC is a sealed, standard and modular connecting system
- Available in several circuit sizes
- Sealed by using high performing matte seal technology
- High density connector
- Hybrid system carrying low, medium and high current
- Used with CMC CP Terminals
- Using CMC CP 2.80mm terminals for power connecting applications

Reference Information

Product Specification: PS-64321-001
Mates With: 53 circuit CMC header 98997-1002, please contact Molex for details
Use With:
Terminal: 64322 CMC CP 0.635mm (.025")
64323 CMC CP 1.50mm (.059")
64324 CMC CP 2.80mm (.110")
Plug: 64325-1010 Plug 0.635mm (.025") cavity
64325-1023 Plug 1.50mm (.059") cavity
64325-1091 Plug 2.80mm (.110") cavity
Wire Cap: 64321-1101 CMC Wire Cap for 53 circuit CMC Receptacle
Designed In: Millimeters

Electrical

Voltage: 250V AC
Current: *
2.5A for CMC CP 0.635mm (.025") terminal (0.75mm² wire)
12.0A for CMC CP 1.50mm (.059") terminal (2.0mm² wire)
21.0A for CMC CP 2.80mm (.110") terminals (5.0mm²)
Contact Resistance:
CMC CP 0.635mm (.025")—8 milliohms max.
CMC CP 1.50mm (.059")—4 milliohms max.
CMC CP 2.80mm (.110")—3 milliohms max.
Dielectric Withstanding Voltage: 1000V AC for 1 minute
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force:
CMC CP 0.635mm (.025")—12.00N max.
CMC CP 1.50mm (.059")—20.00N max.
CMC CP 2.80mm (.110")—25.00N max.
Contact Retention to Housing:
CMC CP 0.635mm (.025")—60.00N min.
CMC CP 1.50mm (.059")—100.00N min.
CMC CP 2.80mm (.110")—100.00N min.
Wire Pull-Out Force: 100.00N min.
Mating Force: 80.00N max.
Unmating Force: 80.00N max.
Durability: 20 mating cycles

Physical

Housing: Glass-filled PBT

* Current tested on a fully loaded connector, current for temperature increase of 40°C

CMC Power Receptacle				
Circuits	**Order No.**	**Coding**	**Wire Output**	**Lead-Free**
53	64321-1011	Black	Left	Yes
53	64321-1018	Grey	Left	
53	64321-1019	Brown	Left	
53	64321-2011	Black	Right	
53	64321-2018	Grey	Right	
53	64320-2019	Brown	Right	

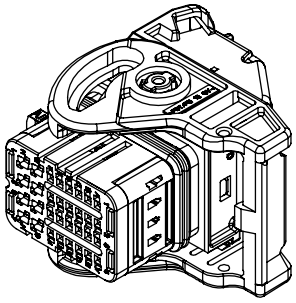
CMC Wire Cap			
Circuits	**Order No.**	**Housing Color**	**Lead-Free**
For 53 circuit	64321-1101	Black	Yes

CMC Plug			
Circuits	**Order No.**	**Housing Color**	**Lead-Free**
0.635mm (.025")	64325-1010	White	Yes
1.50mm (.059")	64325-1023	Orange	
2.80mm (.110")	64325-1091	Black	

2.54mm (.100")/ 3.50mm (.138") Pitch Wire-to-Board CMC Hybrid Crimp Housing

98944

32 Circuits



Features and Benefits

- Secondary locking
- Gel grommet seal to facilitate harness assembly (no cavity plug necessary for unplugged cavities)
- Two wire sizes: hybrid 0.635 and 1.50mm (.025 and .060") connector

Reference Information

Packaging: Tray
Mates With: Various other CMC headers
Use With: 98658, 98915-10x9 terminals and 98649-1003 (wire cap)
Designed In: Millimeters

Electrical

Voltage: 14V
Current:
0.635mm (.025") terminal—6.0A max.
1.50mm (.060") terminal—11.0A max.
Contact Resistance:
0.635mm (.025") terminal—8 milliohms max.
1.50mm (.060") terminal—4 milliohms max.
Dielectric Withstanding Voltage: 1000V AC min.
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force:
0.635mm (.025") terminal—10.00N (2.25 lb)
1.50mm (.060") terminal—15.00N (3.37 lb)
Contact Retention to Housing:
0.635mm (.025") terminal—60.00N (13.49 lb)
1.50mm (.060") terminal—100.00N (22.48 lb)
Wire Pull-Out Force: 100.00N (22.48 lb)
Mating Force: 80.00N (17.98 lb) max.
Unmating Force: 80.00N (17.98 lb) max.
Durability: 20 mating cycles

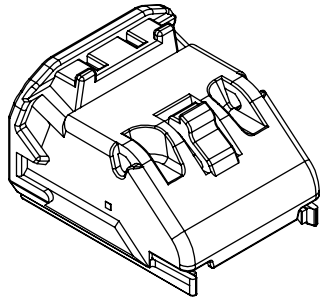
Physical

Housing: Glass-filled PBT Polyester
Sealing Performance: IP67

Circuits	Order No.		Color
	Assembled Right Wire Output	Assembled Left Wire Output	
32	98944-2001	98944-3001	Black
	98944-2002	98944-3002	Gray
	98944-2003	98944-3003	Brown
	98944-2004	98944-3004	Green
	98944-2005	98944-3005	Blue

2.54mm (.100")/ 3.50mm (.138") Pitch CMC Wire Cap

98649



Features and Benefits

- Fixture for strain relief
- Enable right angle wire output in two directions

Reference Information

Packaging: Box
Use With: 98944-200X or 98944-300X
Designed In: Millimeters

Physical

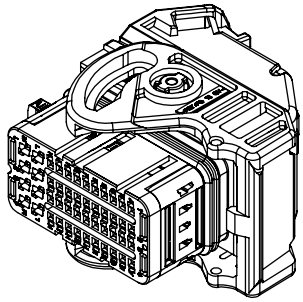
Material: Black PA6—Polyamide

Circuits	Order No.
32	98649-1003

2.54mm (.100")/ 3.50mm (.138") Pitch Wire-to-Board CMC Hybrid Crimp Housing

98950

48 Circuits



Features and Benefits

- Secondary locking
- Gel grommet seal to facilitate harness assembly (no cavity plug necessary for unplugged cavities)
- Two wire sizes: hybrid 0.635 (.025 and .060") and 1.50mm connector

Reference Information

Packaging: Tray
Mates With: Various other CMC headers
Use With: 98658, 98915-10x9 terminals and 98649-1003 (wire cap)
Designed In: Millimeters

Electrical

Voltage: 14V
Current: 0.635mm (.025") terminal—6A max.
1.50mm (.060") terminal—11A max.
Contact Resistance:
0.635mm (.025") terminal—8 milliohms max.
1.50mm (.060") terminal—4 milliohms max.
Dielectric Withstanding Voltage: 1000V AC min.
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force:
0.635mm (.025") terminal—10.00N (2.25 lb)
1.50mm (.060") terminal—15.00N (3.37 lb)
Contact Retention to Housing:
0.635mm (.025") terminal: 60.00N (13.49 lb)
1.50mm (.060") terminal: 100.00N (22.48 lb)
Wire Pull-Out Force: 100.00N (22.48 lb)
Mating Force: 80.00N (17.98 lb) max.
Unmating Force: 80.00N (17.98 lb) max.
Durability: 20 mating cycles

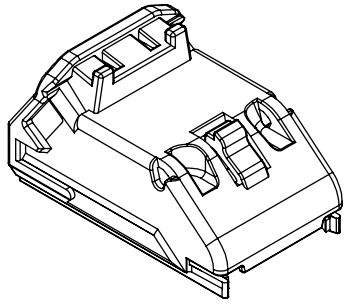
Physical

Housing: Glass-filled PBT Polyester
Sealing Performance: IP67

Circuits	Order No.		Color
	Assembled Right Wire Output	Assembled Left Wire Output	
48	98950-2001	98950-3001	Black
	98950-2002	98950-3002	Gray
	98950-2003	98950-3003	Brown
	98950-2004	98950-3004	Green
	98950-2005	98950-3005	Blue

2.54mm (.100")/ 3.50mm (.138") Pitch CMC Wire Cap

98655



Features and Benefits

- Fixture for strain relief
- Enable right angle wire output in two directions

Reference Information

Packaging: Box
Use With: 98950-200X or 98950-300X
Designed In: Millimeters

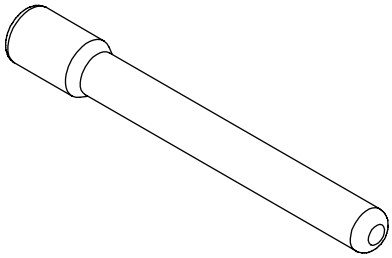
Physical

Material: Black PA6—Polyamide

Circuits	Order No.
48	98655-1003

0.635mm (.025")/ 1.50mm (.059")/ 2.80mm (.110") Terminal Cavity CMC Hybrid Connector Blind Plug

64325



Features and Benefits

- CMC is a sealed, standard and modular connecting system
- Several circuit sizes available
- Sealed by using high performing matte seal technology
- CMC CP blind plugs for unused circuits
- CMC CP blind plugs secure sealing system when flexibility is required for unused cavities with standard backplate

Reference Information

Product Specification:
Please refer to Product Specification of the relevant CMC connector
Mates With:
CMC Plug 0.635mm (.025") and CMC Plug 1.50mm (.059")—CMC connector series 64318, 64319, 64320, and 64321
CMC Plug 2.80mm (.110")—CMC connector series 64318 and 64321
Use With: See under Mates With
Designed In: Millimeters

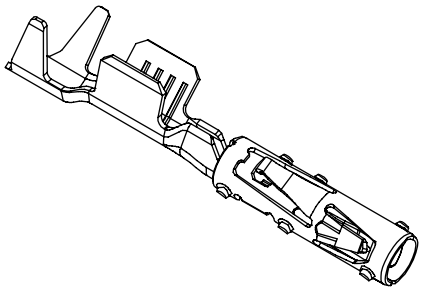
Physical

CMC CP Plug 0.635mm (.025"): White Polyamid
CMC CP Plug 1.50mm (.059"): Orange Polyamid
CMC CP Plug 2.80mm (.110"): Black Rubber

For CMC CP terminal cavity	Order No.	Color	Material
0.635mm (.025")	64325-1010	White	Polyamid
1.50mm (.059")	64325-1023	Orange	Polyamid
2.80mm (.110")	64325-1091	Black	Rubber

0.635mm (.025") Width CMC CP Female Crimp Terminal

64322



Features and Benefits

- Two piece terminal design
- Tang locking system
- Robust design with fully protected beam
- Various wire size compatibility
- Available in tin and gold plating

Reference Information

Product Specification: Please refer to Product Specification of the relevant CMC connector
Mates With: CMC connector series 64318, 64319, 64320 and 64321
Designed In: Millimeters

Electrical

Voltage: 250V AC
Current: *
6.0A for CMC CP 0.635mm (.025") terminal (0.75mm² wire)
Contact Resistance: CMC CP 0.635mm (.025") 8 milliohms max.
Dielectric Withstanding Voltage: 1000V AC for 1 min.
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Insertion Force into Housing (Sealed Connector):
CMC CP 0.635mm (.025")—12.00N min.
Wire Pull-Out Force: 100.00N min. for wire size of 0.50mm²
Mating/Unmating Force:
Please refer to Product Specification of the relevant CMC connector the terminal is used with
Durability: 20 mating cycles

Physical

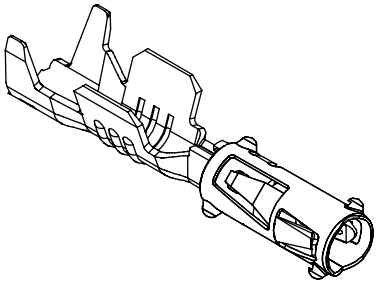
Contact: Phosphor Bronze
Plating: Tin and Gold
Insulation Diameter: See table

* Current tested on a 5 terminals loaded connector, current for temperature increase of 40°C

Order No.	Wire Size (mm²)	Wire Insulation Diameter (mm)	Wire Size (AWG)	Plating	Lead-Free
64322-1019	0.35	1.25 to 1.40	22, 24	Tin	Yes
64322-1029	0.75	1.60 to 1.90		Tin	
64322-1039	0.50	1.40 to 1.70		Tin	
64322-1219	0.75	1.60 to 1.90		1.27µm Gold	
64322-1229	0.35	1.25 to 1.40	22, 24	1.27µm Gold	
64322-1239	0.50	1.40 to 1.70		1.27µm Gold	
64322-1339	0.75	1.60 to 1.90		High Performing version 1.27µm Gold	
64322-1349	0.35	1.25 to 1.40	22, 24	High Performing version 1.27µm Gold	
64322-1359	0.50	1.40 to 1.70		High Performing version 1.27µm Gold	

1.50mm (.059") Width CMC CP Female Crimp Terminal

64323



Features and Benefits

- Two piece terminal design
- Tang locking system
- Robust design with fully protected beam
- Various wire size compatibility
- Available in tin and gold plating

Reference Information

Product Specification:
Please refer to Product Specification of the relevant CMC connector
Mates With: CMC connector series 64318, 64319, 64320 and 64321
Designed In: Millimeters

Electrical

Voltage: 250 V AC
Current: *
12.0A for CMC CP 1.50mm (.059") terminal (2.0mm² wire)
Contact Resistance: CMC CP 1.50mm (.059")—4 milliohms max.
Dielectric Withstanding Voltage: 1000V AC for 1 min.
Insulation Resistance: 100 Megohms min.

* Current tested on a 5 terminals loaded connector, current for temperature increase of 40°C

Mechanical

Contact Insertion Force into Housing (Sealed Connector):
CMC CP 1.50mm (.059")—20.00N min.
Wire Pull-Out Force: 100.00N min. for wire size of 0.50mm²
Mating/Unmating Force:
Please refer to Product Specification of the relevant CMC connector the terminal is used with
Durability: 20 mating cycles

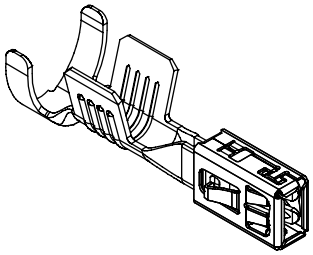
Physical

Contact: Phosphor Bronze
Plating: Tin and Gold
Insulation Diameter: See table

Order No.	Wire Size (mm²)	Wire Insulation Diameter (mm)	Wire Size (AWG)	Plating	Lead-Free
64323-1029	0.50 to 1.00	1.40 to 2.15	18, 20	Tin	Yes
64323-1039	> 1.00 to 2.00	2.10 to 2.80	14, 16	Tin	
64323-1219	> 1.00 to 2.00	2.10 to 2.80	14, 16	1.27µm Gold	
64323-1319	0.50 to 1.00	1.40 to 2.15	18, 20	1.27µm Gold	

2.80mm (.110") Width CMC CP Female Crimp Terminal

64324
With Linked Wire Seal



Features and Benefits
- Two piece terminal design
- Tang locking system
- Robust design with fully protected beam
- Various wire size compatibility
- Available in tin and gold plating

Reference Information
Product Specification:
Please refer to Product Specification of the relevant CMC connector
Mates With: CMC connector series 64318, 64321 and CMC wire seal series 64325
Designed In: Millimeters

Electrical
Voltage: 250V AC
Current: *21.0A for CMC CP 2.80mm (.110") terminals (5.0mm²)
Contact Resistance: CMC CP 2.80mm (.110")—3 milliohms max.
Dielectric Withstanding Voltage: 1000V AC for 1 min.
Insulation Resistance: 100 Megohms min.

* Current tested on a fully loaded connector, current for temperature increase of 40˚C

Mechanical
Contact Insertion Force into Housing (Sealed Connector):
CMC CP 2.80mm (.110")—25.00N min
Wire Pull-Out Force: 100.00N min. for wire size of 0.50mm²
Mating/Unmating Force:
Please refer to Product Specification of the relevant CMC connector the terminal is used with
Durability: 20 mating cycles

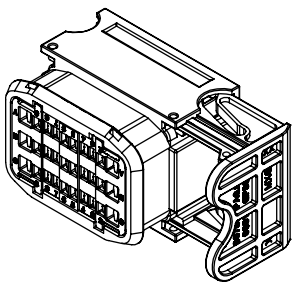
Physical
Contact: Phosphor Bronze
Plating: Tin and Gold
Insulation Diameter: See table

Order No.	Wire Size (mm²)	Wire Insulation Diameter (mm)	Plating	Lead-Free
64324-1019	> 3.0 to 5.0	3.40 to 4.00	Tin	Yes
64324-1029	> 2.0 to 3.0	2.65 to 3.45	Tin	
64324-1039	> 1.0 to 2.0	2.10 to 2.80	Tin	
64324-1049	0.5 to 1.0	1.40 to 2.15	Tin	
64324-1119	> 3.0 to 5.0	3.40 to 4.00	1.27µm Gold	
64324-1129	> 2.0 to 3.0	2.65 to 3.45	1.27µm Gold	
64324-1139	> 1.0 to 2.0	2.10 to 2.80	1.27µm Gold	
64324-1149	0.5 to 1.0	1.40 to 2.15	1.27µm Gold	

www.molex.com/product/cmc.html

3.33mm (.131")/ 4.20mm (.165") Pitch NSCC Wire-to-Wire Hybrid Receptacle Housing

98122
Triple Rows
Sealed



Features and Benefits
- Secondary locking
- Slide to reduce mating force
- Slide orientation right or left
- Grommet seal and perimeter seal
- Color keying
- Two wire sizes: hybrid 1.5 and 2.8mm (.060 and .110") connector

Reference Information
Packaging: Box
Mates With: 98761
Use With: NSCC 1.5 terminal
Designed In: Millimeters

Electrical
Voltage: 13V
Current: 1.5mm (.060")—13.0A
2.8mm (.110")—22.0A
(see Sicma terminal specification for 1.5 and 2.8mm terminals)
Contact Resistance: 1.5mm (.060")—5 milliohms max.
2.8mm (.110")—4 milliohms max.
Dielectric Withstanding Voltage: 1000 VAC or 1400 VDC
Insulation Resistance: 100 Megohms min.

Mechanical
Contact Insertion Force:
1.5mm (.060")—25.0N (5.62 lb) max.
2.8mm (.110")—30.0N (6.74 lb) max.
Contact Retention to Housing: 120.0N (26.98 lb) min.
Wire Pull-Out Force: 120.0N (26.98 lb)
Mating Force: 85.0N (19.11 lb) max. (fully loaded)
Unmating Force: 85.0N (19.11 lb) max. (fully loaded)
Durability: 10 mating cycles

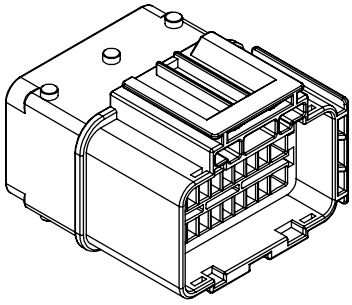
Physical
Housing: Glass-filled PBT Polyester, UL 94V-HB
Sealing Class: 500 mbars (7.25 psi)

Circuits	Order No.	Color	Slide Orientation
30	98122-1001	Black	Right
	98122-1002	Brown	
	98122-1003	Gray	
	98122-1005	Black	Left
	98122-1006	Brown	
	98122-1007	Gray	

3.33mm (.131")/ 4.20mm (.165") Pitch NSCC Wire-to-Wire Hybrid Plug Housing

98761

Triple Rows
Sealed



Circuits	Order No.	Color
30	98761-1001	Black
	98761-1002	Brown
	98761-1003	Gray

Features and Benefits

- Secondary locking feature
- Slide to reduce mating force
- Slide orientation right or left possible
- Grommet seal and perimeter seal
- Color keying
- Two wire sizes: hybrid 1.50 and 2.80mm (.060 and .110") connector

Reference Information

Packaging: Box
Mates With: 98122
Use With: Sicma 1.5 and 2.8mm (.060 and .110") male terminals
Designed In: Millimeters

Electrical

Voltage: 13V
Current: 1.5mm (.060")—13.0A
2.8mm (.110")—22.0A
(see FCI Sicma terminal specification for 1.5 and 2.8mm terminals)
Contact Resistance: 1.5mm (.060")—5 milliohms max.
2.8mm (.110")—4 milliohms max.
Dielectric Withstanding Voltage: 1000V AC or 1400V DC
Insulation Resistance: 100 Megohms min.

Mechanical

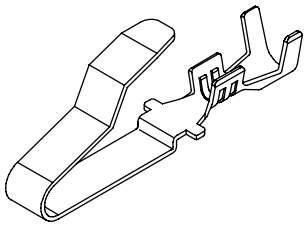
Contact Insertion Force:
1.5mm (.060")—15.0N (3.37 lb) max.
2.8mm (.110")—20.0 N (4.50 lb) max.
Contact Retention to Housing: 120.0 N (26.98 lb) min.
Wire Pull-Out Force: 120.0N (26.98 lb)
Mating Force: 85.0N (19.11 lb) max. (fully loaded)
Unmating Force: 85.0N (19.11 lb) max. (fully loaded)
Durability: 10 mating cycles

Physical

Housing: Glass-filled PBT Polyester, UL 94-HB
Sealing Class: 500 mbars (7.25 psi)

Bulb Socket Sealed Terminal

35464
Positive Lock



Features and Benefits
- Positive locking terminal
- Available for sealed or unsealed systems

Reference Information
Product Specification: PS-35842-001
Packaging: Reel
Use With: 35842 and 35843
Mates With: 35903 Wire Seal
Designed In: Millimeters

Electrical
Voltage: 12V
Current:

Wire Size	Current
0.5 mm²	5A
0.85 mm²	7A

Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500V DC 100 Megohms min.

Mechanical
Contact Insertion Force: 3.0 kgf max.
Contact Retention to Housing: 6.0 kgf min.

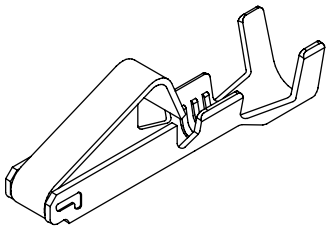
Physical
Contact: Phosphor Bronze
Plating: Contact Area—Unplated
Insulation Diameter: 1.90mm (.075") max.
Strip Length: 2.60 to 3.60mm (.102 to .142")

Order No.	Wire Range (mm²)	Lead-free
35464-8000	AVS (AVSS) 0.3-0.85	Yes

www.molex.com/customer.html?seriesNumber=35464

Bulb Socket Sealed Terminal

35465
Earth



Features and Benefits
- Positive locking terminal
- Available for sealed or unsealed systems

Reference Information
Product Specification: PS-35842-001
Packaging: Reel
Use With: 35842 and 35843
Mates With: 35903 Wire Seal
Designed In: Millimeters

Electrical
Voltage: 12V
Current:

Wire Size	Current
0.5 mm²	5
0.085 mm²	7

Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 100 Megohms min.

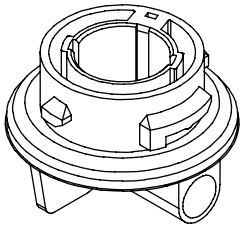
Mechanical
Contact Insertion Force: 3.0 kgf max.
Contact Retention to Housing: 6.0 kgf min.

Physical
Contact: Phosphor Bronze
Plating: Unplated

Order No.	Wire Range (mm²)	Lead-free
35465-8000	AVS (AVSS) 0.3-0.85	Yes

Bulb Socket

35843
Sealed, Single



Features and Benefits
- Used with: 21/5W for double bulb 21W for single bulb
- High temperature material
- Compact size provides space saving
- Easy insertion "push-to-seat" terminal design provides cost savings
- Bottom flange enables easy assembly with lamp
- Simplified lamp design by standardization of light center length
- Silicone wire seal provides good sealing

Reference Information
Product Specification: PS-35842-001
Packaging: Bag
Mates With: Lamp
Use With: 35464 and 35465
Designed In: Millimeters

Electrical
Voltage: 12V
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500V DC 100 Megohms min.

Mechanical
Contact Insertion Force: 3.0 kgf max.
Contact Retention Force: 6.0 kgf min.
Wire Pull-Out Force: 58.3N (13.23 lb) min.
Durability: 50 cycles

Physical
Housing: High-temperature Polyamide, UL 94V-2

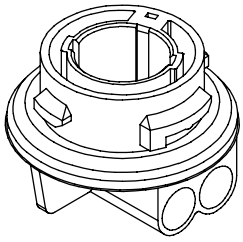
Order No.	Type	Color
35843-1205	A	Gray
35843-1206		White
35843-1210	B	Natural
35843-1211		Black
35843-1215		Gray
35843-1216		White
35843-1217		Brown
35843-1221	C	Black
35843-1225		Gray
35843-1226		White
35843-1227		Brown

Order No.	Type	Color
35843-1240	D	Natural
35843-1245		Gray
35843-1246		White
35843-1247		Brown
35843-1230	EC	Natural
35843-1235		Gray
35843-1236		White
35843-1237		Brown

www.molex.com/customer.html?seriesNumber=35843

Bulb Socket

35842
Sealed, Double



Features and Benefits
- Used with: 21/5W for double bulb 21W for double bulb
- High temperature material
- Compact size provides space saving
- Easy insertion "push-to-seat" terminal design provides cost savings
- Bottom flange enables easy assembly with lamp
- Simplified lamp design by standardization of light center length
- Silicone wire seal provides good sealing

Reference Information
Product Specification: PS-35842-001
Packaging: Bag
Mates With: Lamp
Use With: 35464 and 35465
Designed In: Millimeters

Electrical
Voltage: 12V
Current: 7.0A max.
Contact Resistance: 10 milliohms max.
Dielectric Withstanding Voltage: 1000V AC
Insulation Resistance: 500V DC 100 Megohms min.

Mechanical
Contact Insertion Force: 3.0 kgf max.
Contact Retention Force: 6.0 kgf min.
Wire Pull-Out Force: 58.3N (13.23 lb) min.
Durability: 50 cycles

Physical
Housing: High-temperature Polyamide, UL 94V-2

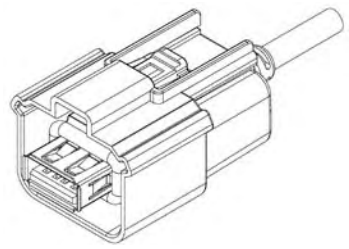
Order No.	Type	Color
35842-1301	A	Black
35842-1305		Gray
35842-1306		White
35842-1307		Brown
35842-1315	B	Gray
35842-1316		White
35842-1317		Brown

www.molex.com/customer.html?seriesNumber=35842

HSAutoLink™ Cable Assembly

111015/111082/111083

USCAR USB Standard A Receptacle to USCAR USB Plug



Latching Shroud

Features and Benefits

- Rugged connectors meet USCAR and other automotive OEM requirements
- Superior signal performance and reduced Electro Magnetic Interference (EMI)
- USCAR-30 compliant
- High durability Standard A receptacle
- Package size optimization of the consumer interface

Reference Information

Packaging: Bag
Mates With: USCAR USB Keyed Headers—Right Angle (49616), Vertical (104004)
Use With: In-Line Cable Assemblies 111005 for separating link applications
Designed In: Millimeters

Electrical

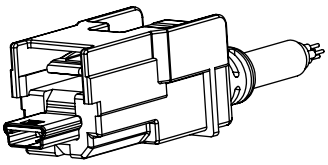
Voltage: 30V
Current: 1.5A
Contact Resistance: 50 milliohms max.
Insulation Resistance: 150 Megohms min.

Mechanical

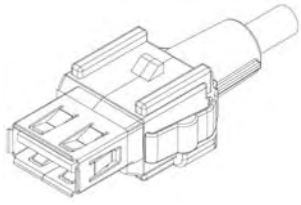
USB Standard A
Mating Force: 35N (7.87 lb) max.
UnmatingForce: 10N (2.25 lb) min.
Durability: 5,000 cycles*
*Durability results range from 5,000 cycles to as many as 20,000 cycles based on test methods used
Plug: Shielded 5 Pin
Mating Force: 45N (10.12 lb) max.
Retention Force: 110N (24.73 lb) max.
Durability: 25 cycles

Physical

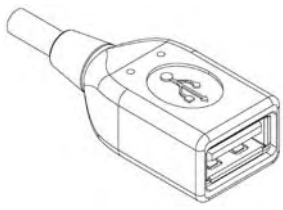
Housing: PBT
Interface Plating: Gold over Nickel



Plug



Unshrouded



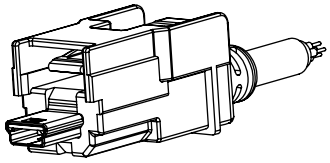
Overmolded

Order No.	Plug Polarization	Standard A	Length*
111015-0100	A	Latching Shroud	0.50m (1.64')
111015-0101	B		
111015-0200	A		1.00m (3.28')
111015-0201	B		
111015-0300	A		1.50m (4.92')
111015-0301	B		
111082-0001	A	Overmolded	0.50m (1.64')
111082-0002	B		
111083-0001	A	Unshrouded	
111083-0002	B		

*Other lengths available, contact Molex.

HSAutoLink™ Cable Assembly

111014
USCAR USB Plug to Plug



Features and Benefits
- Rugged connectors meet USCAR and other automotive OEM requirements
- Superior signal performance and reduced Electro Magnetic Interference (EMI)
- USCAR-30 compliant

Reference Information
Packaging: Bag
Mates With: USCAR USB Keyed Headers—Right Angle (49616), Vertical (104004)
Use With: Cable Assemblies 111005
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 1.5A
Contact Resistance: 50 milliohms max.
Insulation Resistance: 150 Megohms min.

Mechanical
Plug: Shielded 5 Pin
Mating Force: 45N (10.12 lb) max.
Unmating Force: 45N (10.12 lb) max.
Retention Force: 110N (24.73 lb) min.
Durability: 25 cycles
Inline Receptacle: Shielded 5 Pin
Mating Force: 45N (10.12 lb) max.
Unmating Force: 45N (10.12 lb) max.
Retention Force: 110N (24.73 lb) min.
Durability: 25 cycles

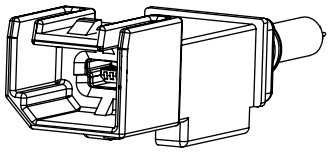
Physical
Housing: PBT
Interface Plating: Gold over Nickel

Order No.	In-Line Receptacle	Plug Polarization	Length*
111014-5000	A	A	0.50m (1.64')
111014-5001		B	
111014-5003	B		

*Other lengths available, contact Molex.

HSAutoLink™ Cable Assembly

111005
USCAR USB Plug to In-line Receptacle



Features and Benefits
- Rugged connectors meet USCAR and other automotive OEM requirements
- Superior signal performance and reduced Electro Magnetic Interference (EMI)
- USCAR-30 compliant
- Integrated retainer slot for standard Christmas-tree clip

Reference Information
Packaging: Bag
Mates With: USCAR USB Keyed Headers—Right Angle (49616), Vertical (104004)
Use With: Cable Assemblies 111014, 111015
Designed In: Millimeters

Electrical
Voltage: 30V
Current: 1.5A
Contact Resistance: 50 milliohms max.
Insulation Resistance: 150 Megohms min.

Mechanical
Plug: Shielded 5 Pin
Mating Force: 45N (10.12 lb) max.
Unmating Force: 45N (10.12 lb) max.
Retention Force: 110N (24.73 lb) min.
Durability: 25 cycles
Inline Receptacle: Shielded 5 Pin
Mating Force: 45N (10.12 lb) max.
Unmating Force: 45N (10.12 lb) max
Retention Force: 110N (24.73 lb) min.
Durability: 25 cycles

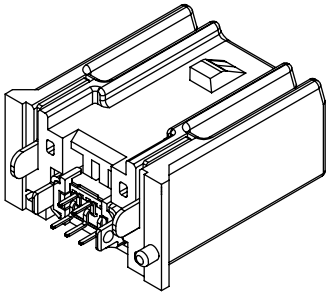
Physical
Housing: PBT
Interface Plating: Gold over Nickel

Order No.	In-Line Receptacle	Plug Polarization	Length*
111005-1010	A	A	0.50m (1.64')
111005-1020		B	
111005-1030	B	A	
111005-1040		B	

*Other lengths available, contact Molex.

HSAutoLink™ Header

104004
Vertical



Order No.	Plug Polarization*
104004-0501	A
104004-0505	B

*For applications where additional plug polarizations are required, contact Molex.

Features and Benefits
- Provides a proven interface offering good mechanical performances
- USCAR-30 compliant
- Meets all USB 2.0 electrical and EMI requirements
- Compatible with Lead-free through-hole reflow process (Pin-in-Paste)

Reference Information
Packaging: Tray
Mates With: Cable Assemblies (Series 111005, 111014, 111015, 111019, 111020 and 111041)
Designed In: Millimeters

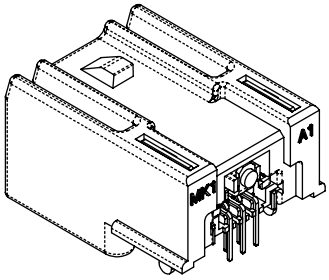
Electrical
Voltage: 16V AC min.
Current: 1.0A max.
Contact Resistance: 50 milliohms max.
Insulation Resistance: 150 Megohms min.

Mechanical
Insertion Force to PCB: 20N (4.50 lb) max.
Mating Force: 45N (10.12 lb) max.
Unmating Force: 45N (10.12 lb) max.
Durability: 25 cycles min.

Physical
Housing: LCP High-Temperature Plastic
Contact: Copper Alloy
Plating: Contact Area—0.75µm min. Gold
Solder Tail Area—3.0µm min. Tin
Underplating—1.25µm min. Nickel
PCB Thickness: 1.60mm (.063")

HSAutoLink™ Header

49616
Right Angle



Order No.	Plug Polarization*
49616-0711	A
49616-0715	B

*For applications where additional plug polarizations are required, contact Molex.

Features and Benefits
- Provides a proven interface offering good mechanical performances
- USCAR-30 compliant
- Meets all USB 2.0 electrical and EMI requirements
- Compatible with Lead-free through-hole reflow process (Pin-in-Paste)

Reference Information
Packaging: Tray
Mates With: Cable Assemblies (Series 111005, 111014, 111015, 111019, 111020 and 111041)
Designed In: Millimeters

Electrical
Voltage: 16.0V AC min.
Current: 1.0A max.
Contact Resistance: 50 milliohms max.
Insulation Resistance: 150 Megohms min.

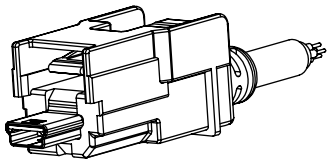
Mechanical
Insertion Force to PCB: 20N (4.50 lb) max.
Mating Force: 45N (10.12 lb) max.
Unmating Force: 45N (10.12 lb) max.
Durability: 25 cycles min.

Physical
Housing: LCP High-Temperature Plastic
Contact: Copper Alloy
Plating: Contact Area—0.75µm min. Gold
Solder Tail Area—3.0µm min. Tin
Underplating—1.25µm min. Nickel
PCB Thickness: 1.60mm (.063")

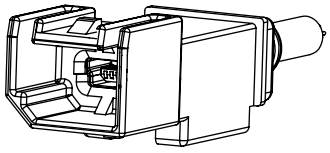
HSAutoLink™ Cable Assembly

111019/111041

LVDS 2- and 4-Wire



Plug



In-line Receptacle

Features and Benefits

- Rugged connectors meet USCAR and other automotive OEM requirements
- Support 2 or 4 wire LVDS technology
- Use of high electrical performance Shielded Twisted Pair cable construction
- Interconnect system already evaluated with most of major LVDS chip suppliers for automotive application

Reference Information

Packaging: Bag
Mates With: USCAR USB Keyed Headers—Right Angle (Series 49616), Vertical (Series 104004)
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 1.0A
Contact Resistance: 50 milliohms max.
Insulation Resistance: 150 Megohms min.

Mechanical

Plug: Shielded 5 Pin
Mating Force: 45N (10.12 lb) max.
Unmating Force: 45N (10.12 lb) max.
Retention Force: 110N (24.73 lb) min.
Durability: 25 cycles

Inline Receptacle: Shielded 5 Pin
Mating Force: 45N (10.12 lb) max.
Unmating Force: 45N (10.12 lb) max.
Retention Force: 110N (24.73 lb) min.
Durability: 25 cycles

Physical

Housing: PBT
Interface Plating: Gold over Nickel

Plug to Plug Cable Assembly

Wires	Order No.	In-Line Receptacle	Plug Polarization	Length*
2	111041-5001	A	A	0.50m (1.64')
	111041-5000		B	
	111041-5002	B		
4	111019-5001	A	A	
	111019-5000		B	
	111019-5002	B		

In-Line Receptacle to Plug Cable Assembly

Wires	Order No.	In-Line Receptacle	Plug Polarization	Length*
2	111041-2010	A	A	0.50m (1.64')
	111041-2030		B	
	111041-2020	B	A	
	111041-2040		B	
4	111019-2010	A	A	
	111019-2030		B	
	111019-2020	B	A	
	111019-2040		B	

*Other lengths available, contact Molex.

General Information

Crimp Tooling Introduction ..... U-2 to U-4
Insulation Displacement Technology (IDT) Introduction U-5

Americas

Crimp Tooling
- Hand Tool Overview U-6
- Semi-Automatic Crimping Presses Overview ..... U-7 to U-11
- Fully Automatic Wire Process Machine Overview U-12
- Wire Gauge Classification U-13
- Available Tooling Overview ..... U-14 to U-86

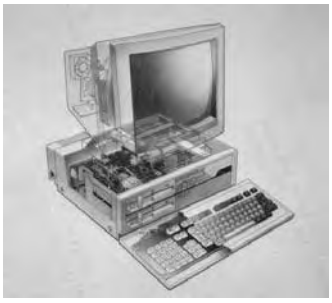
Asia Pacific North

Crimp Tooling
- Hand Crimpers Cross Reference ..... U-87 to U-88
- Crimp Tooling Cross Reference ..... U-89 to U-90
- Semi-Automatic Crimping Presses U-91
- Wire Gauge Classifications U-91

Visit www.molex.com to access more part numbers and product information, download sales drawings, product specifications, 3D models, place sample requests, and more.

General Information

Introduction to Crimp Technology



Website: Please visit the Molex website to view the most current Application Tooling information. The Molex website is continuously updated with the latest information. (www.molex.com)

Developed to replace the need to solder terminations, crimping technology provides a high quality connection between a terminal and a wire at a relatively low applied cost. The methods for applying crimp terminations depend on the application and volume, and range from hand-held devices to fully-automated systems. The application methods include a basic hand tool, a press and die set, a stripper crimper or a fully automatic wire processing system. But no matter what method is used, the setup of each tool is critical for achieving a quality crimp.

Terminology

Bellmouth (Flare)
The flare that is formed on the edge of the conductor crimp acts as a funnel for the wire strands. This funnel reduces the possibility that a sharp edge on the conductor crimp will cut or nick the wire strands. As a general guideline, the conductor bellmouth needs to be approximately 1 to 2x the thickness of the terminal material.*

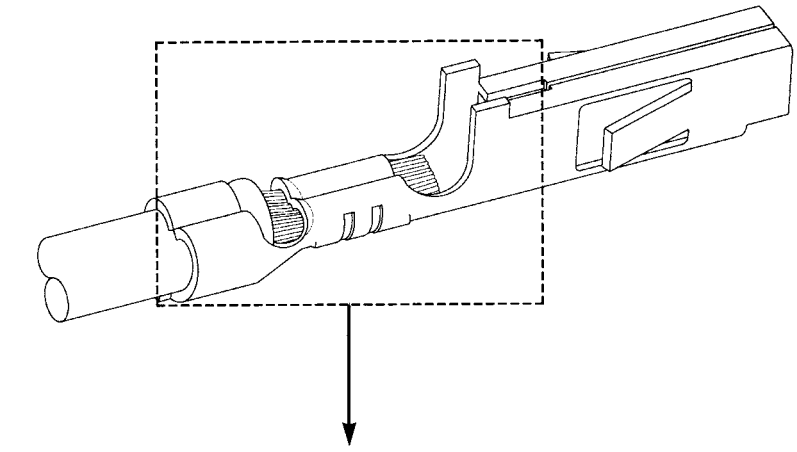
Conductor Brush
The conductor brush is made up of the wire strands that extend past the conductor crimp on the contact side of the terminal. This helps ensure that mechanical compression occurs over the full length of the conductor crimp. The conductor brush should not extend into the contact area.

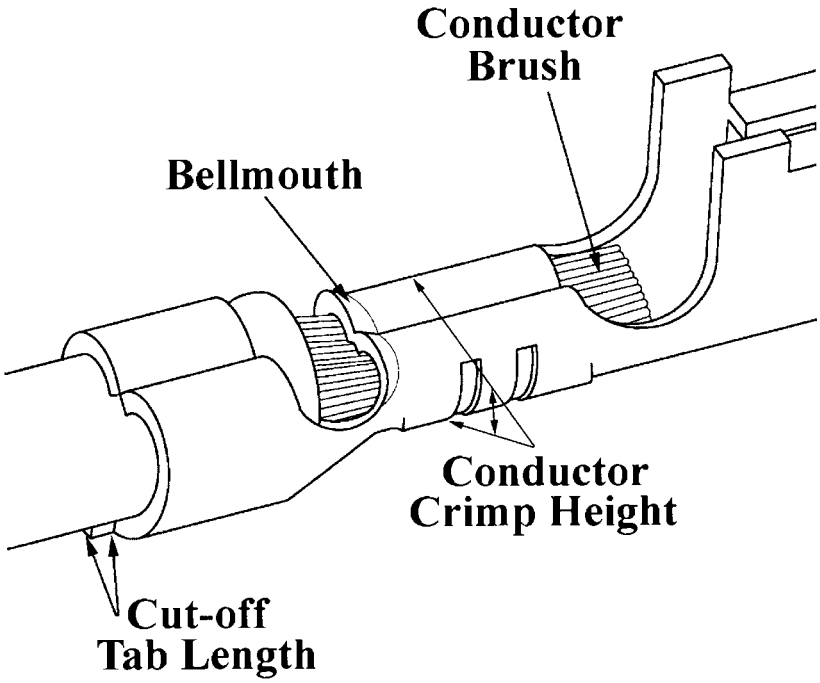
Conductor Crimp
This is for the metallurgical compression of a terminal around the wire's conductor. This connection creates a common electrical path with low resistance and high current carrying capabilities.

Conductor Crimp Height
The conductor crimp height is measured from the top surface of the formed crimp to the bottom most radial surface. Do not include the extrusion points in this measurement (See Figure 2). Measuring crimp height is a quick, non-destructive way to help ensure the correct metallurgical compression of a terminal around the wire's conductor and is an excellent attribute for process control. The crimp height specification is typically set as a balance between electrical and mechanical performance over the complete range of wire stranding and coatings, and terminal materials and platings. Although it is possible to optimize a crimp height to individual wire strandings and terminal platings, one crimp height specification is normally created.

Cut-off Tab Length
This is the material that protrudes outside the insulation crimp after the terminal is separated from the carrier strip. As a general rule, the cut-off tab is approximately 1.0 by 1.5x terminal material thickness.* A cut-off tab that is too long may expose a terminal outside the housing or it may fail electrical spacing requirements. In most situations, a tool is setup to provide a cut-off tab that is flush to one material thickness.

*Consult individual terminal specifications





Introduction to Crimp Technology

Terminology (Continued)

Extrusions (Flash)

These are the small flares that form on the bottom of the conductor crimp resulting from the clearance between the punch and anvil tooling. If the anvil is worn or the terminal is over-crimped, excessive extrusion results. An uneven extrusion may also result if the punch and anvil alignment is not correct, if the feed adjustment is off, or if there is insufficient/ excessive terminal drag.

Insulation Crimp (Strain Relief)

This is the part of the terminal that provides both wire support for insertion into the housing and allows the terminal to withstand shock and vibration. The terminal needs to hold the wire as firmly as possible without cutting through to the conductor strands. The acceptability of an insulation crimp is subjective and depends on the application. A bend test is recommended to determine whether or not the strain relief is acceptable for each particular application.

Insulation Crimp Height

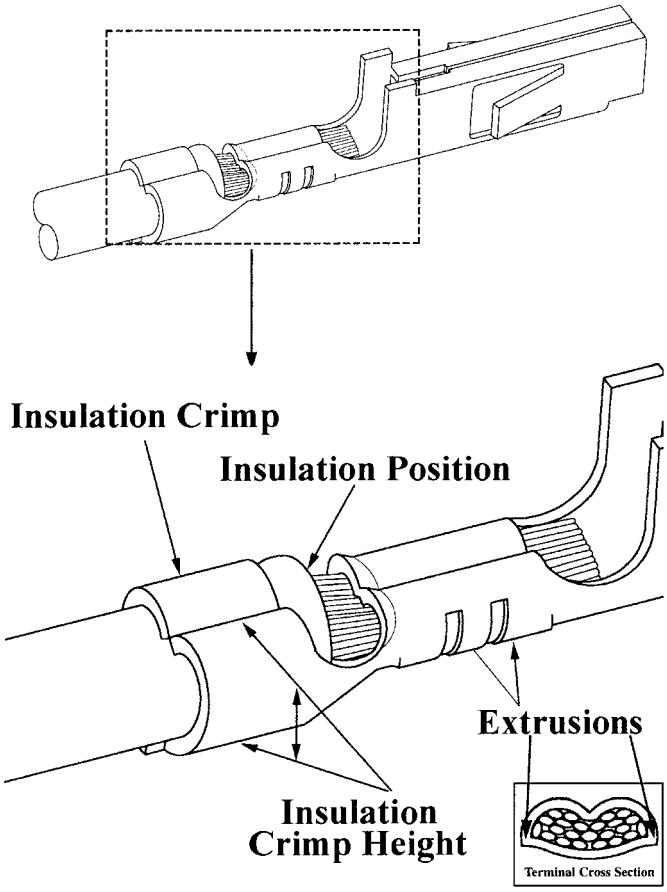
Molex does not specify insulation crimp heights because of the wide variety of insulation thickness, material, and hardness. Most terminals are designed to accommodate multiple wire ranges. Within the terminals range, an insulation diameter may not completely surround the wire or fully surround the diameter of the wire. This condition will still provide an acceptable insulation crimp for most applications.

- A large insulation should firmly grip at least 88% of the wire
- A smaller insulation should firmly grip at least 50% of the wire and firmly hold the top of the wire

To evaluate the insulation section cut the wire flush with the back of the terminal. Once the optimum setting for the application is determined it is important to document the insulation crimp height. Then, as part of the setup procedure the operator can check the crimp height.

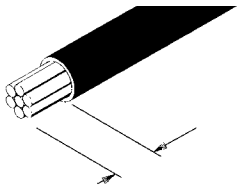
Insulation Position

This is the location of the insulation in relation to the transition area between the conductor and insulation crimps. Equal amounts of the conductor strands and insulation needs to be visible in the transition area. The insulation position ensures that the insulation is crimped along the full length of the insulation crimp, and that no insulation gets crimped under the conductor crimp. The insulation position is set by the wire stop and strip length for bench applications. For automatic wire processing applications the insulation position is set by the in/out press adjustment.



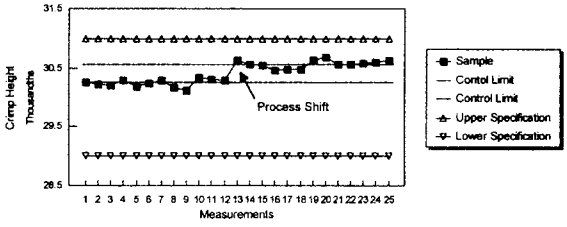
Strip Length

The strip length is determined by measuring the exposed conductor strands after the insulation is removed. The strip length determines the conductor brush length when the insulation position is centered.



Process

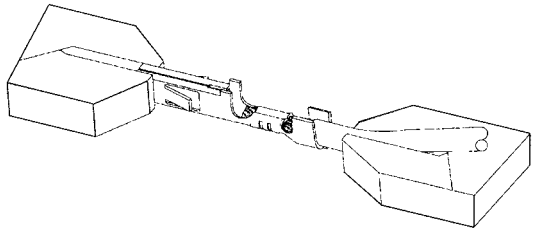
The combination of people, equipment, tooling, materials, methods and procedures needed to produce a crimp termination. Process control is used to track attributes over time to aid in the detection of change to the process. Detecting a process change when it happens helps prevent many thousands of bad crimps.



Pull Force Testing

Pull Force Testing is a quick, destructive way to evaluate the mechanical properties of a crimp termination. When making a crimp, enough pressure must be applied to breakdown the oxides th at build up on the stripped conductor and the tin plating on the inside of the terminal grip. This is necessary to provide a good metal-to-metal contact. If this does not occur, resistance can increase. Over crimping a crimp termination will reduce the circular area of the conductor and increase resistance.

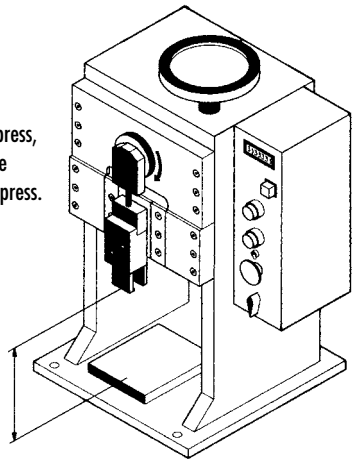
Pull Force Testing is also a good indicator of problems in the process. Cut or nicked strands in the stripping operation, lack of bellmouth or conductor brush, or incorrect crimp height or tooling will reduce pull force. Wire properties and stranding, and terminal design (material thickness and serration design), also can increase or decrease pull force levels.



Introduction to Crimp Technology

Shut Height

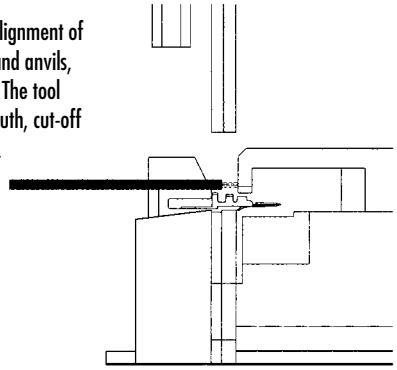
The distance, at bottom dead center on a press, from the tooling mounting base plate to the tooling connection point on the ram of the press.



Terminal Position

The terminal position is set by the alignment of the terminal to the forming punch and anvils, and the carrier strip cut-off tooling. The tool set-up determines conductor bellmouth, cut-off tab length, and terminal extrusions.

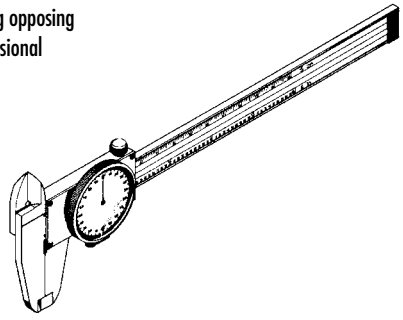
*Consult individual terminal spcifications



Associated Materials

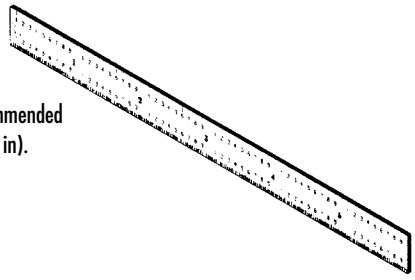
Caliper

A gauge, consisting of two opposing opposing blades, for measuring linear dimensional attributes.



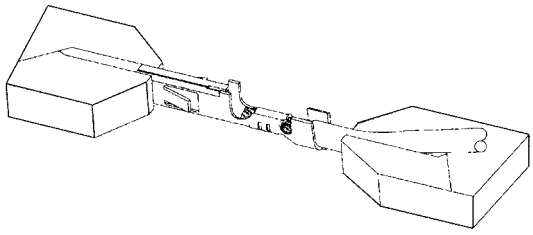
Ruler (Pocket Scale)

This is used to estimate the five-piece measurement of bellmouth, cut-off tab, conductor brush, wire position, and strip length. The recommended maximum resolution is .5mm (.020 in).



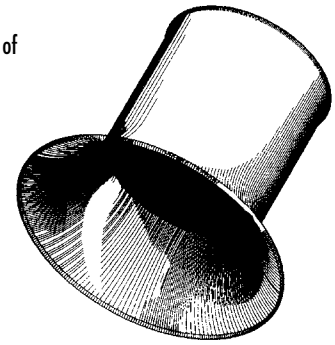
Pull Tester (Reference Figure 5)

A device used to determine the mechanical strength of a crimp termination. Most pull testing is done with a device that clamps the wire, pulls at a set speed and measures force by means of a load cell. A pull tester also can be as simple as hanging fixed weights on the wire for a minimum of one minute.



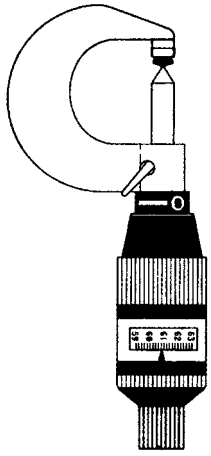
Eye Loop

A magnification tool, normally 10x power or greater, which is used to aid visual evaluation of a crimp termination.



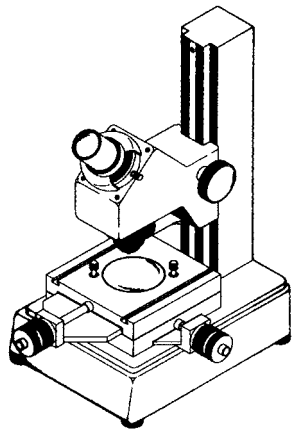
Crimp Micrometer

This is a micrometer specifically designed to measure crimp height. The measurement is taken in the center of the crimp so it is not influenced by the conductor bellmouth. It has a thin blade that supports the top of the crimp while a pointed section determines the bottom-most radial surface.



Toolmaker's Microscope

This is used for close visual evaluation and statistical measurement of bellmouth, cut-off tab, conductor brush, wire position and strip length.



Insulation Displacement Technology Tooling Introduction



Insulation Displacement Technology (IDT) is a wire termination technique in which an insulated wire is pressed into a terminal slot smaller than the conductor diameter, displacing the insulation and forming an electrical contact between the terminal and conductor.

Insulation displacement offers 3 major advantages over other termination techniques:

- Electrical connectors are supplied to the customer with the terminals loaded into their final positions. This feature results in customer labor savings as additional operations are not required to complete the assembly.
- Hourly production rates are maximized through the simultaneous mass insertion of wires into multiple connectors.
- IDT allows for multiple connectors to be placed along a harness assembly (daisy chain) without the need to double terminate circuits.

Molex offers a full line of IDT terminating equipment ranging from simple hand tools to fully-automatic cable and discrete wire harness assembly machines. All tools are designed and manufactured using the latest technologies to ensure high quality in tool performance and in the product they produce.

Hand Tools

Low-volume users can choose from a range of snap-on modules that mount to a common pistol or bench mounted holder. These modules can be easily changed to accommodate various connector styles. Typically, these tools yield production rates of approximately 300 terminations per hour.

Manual Press Tools

For medium production volumes, Molex offers a variety of manual press bench tools designed to process cable or discrete wire to further increase productivity. For tools in this category, production rates of up to 250 assemblies per hour for cable or 500 terminations per hour for discrete wire are not uncommon.

Semi-Automatic Bench Tools

For higher production volumes, Molex offers a variety of semi-automatic bench tools to increase the end users' productivity. For tools in this category, production rates of up to 900 assemblies per hour for cable or 1200 terminations per hour for discrete wire are normally realized. In addition to inserting wires into terminals, selected machine models are already equipped to:

- Automatically unload connectors from packaging such as extruded tubes, mylar film, etc.
- Perform secondary operations, for example, carrier strip breakoff, terminal insertion, product marking, etc.

Fully-Automatic Machines

For large production requirements, Molex offers its customers fully-automatic modular assembly machines. This modular concept allows machines to be designed and built to meet exact customer requirements. Additionally, this concept enables customers to add options at a future date as production needs change. In general, machines in this category produce 10,000 terminations per hour or better. All machines are designed with fully-integrated PLC controls that include "user-friendly" self-diagnostic software features to minimize set-up time and maximize machine uptime and system utilization.

Special Machines

Molex can quote special machines upon request with optional features that parallel the Phoenix™/Eagle™ Series. In general, these machines differ by the manner in which connector termination and wire handling is accomplished. Additionally, daisy chain and different connector orientations can be accomplished.

Molex Crimp Tooling

Within the family of Molex Crimp Tooling there are three levels:

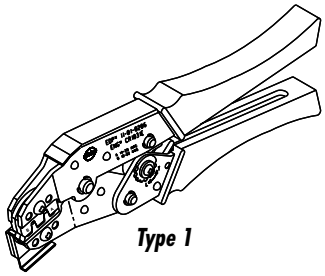
- Manual Crimp Hand Tools
- Semi-Automatic Crimp Presses and Tools
- Fully-Automatic Crimp Wire Processor Tools

Manual Crimp Hand Tools

These products are used for prototype and field repair work. These tools are not designed for production work.

Type 1

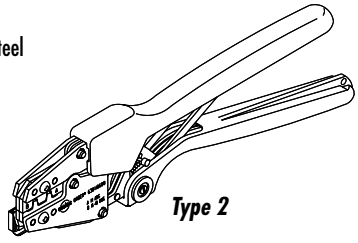
- Improved ergonomic design which improves comfort and grip
- Small handle spread which make this style tool ideally suited for end users
- Ratchet with safety release that ensures consistent performance
- This tool type reduces work-related injuries
- CR prefix for Molex-US
- 63811 prefix for Molex-US



Type 1

Type 2

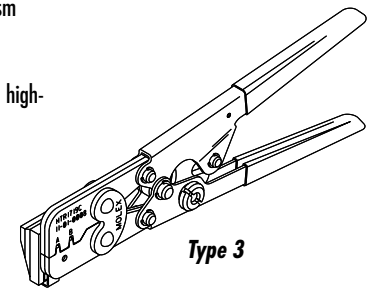
- Advanced ergonomic design with superior mechanical gain and lower handle forces which increases productivity
- High-strength, through-hardened alloy steel construction
- Ratchet with safety release that ensures consistent performance
- This tool type reduces work related injuries
- CR prefix for Molex-US
- 63811 prefix for Molex-US



Type 2

Type 3

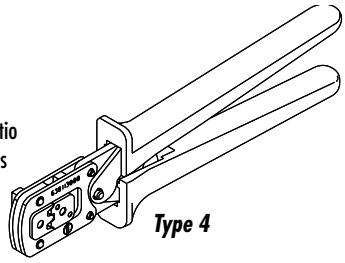
- Simple trouble-free full-cycle mechanism assures consistent terminations
- Each tool is precisely engineered
- All crimp cavities are fully machined in high-carbon steel, then heat treated
- HT prefix for Molex-US



Type 3

Type 4

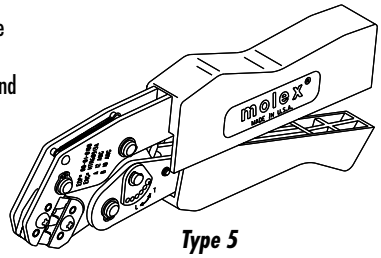
- Ergonomically designed soft handles
- Precisely designed crimping profiles with simple contact positioning
- Easy handling due to outstanding force ratio
- This tool type reduces work related injuries
- 63811 prefix for Molex-US



Type 4

Type 5

- Molded grips and an easy reach frame minimize user fatigue
- Compact lightweight design for wire and contact handling convenience
- Positive ratcheting assembly with emergency release
- This tool type reduces work related injuries

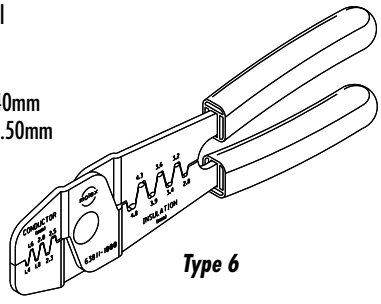


Type 5

*Type 6**

- Inexpensive crimp tool for open barrel terminals
- Accepts wire range of 14-24 AWG
- Accepts material thickness of 0.15-0.40mm and conductor barrel length of 2.00-3.50mm
- Small handle spread design
- Insulated handles
- Ideal for field repair and prototyping
- Available in custom packaging for customer resale

* Available through distribution only



Type 6

Semi-Automatic Bench Top Crimping Presses

TM-3000™ Universal Press



Industry standard air-feed crimp press is ideal for descrete wire and cable applications

Molex's TM-3000 Universal Crimp Press provides an effective method of applying a wide range of side and rear-feed terminals to pre-stipped discrete wire and cable. The TM-3000 press is an inexpensive, electrically-controlled, direct-drive press designed for mid-volume, semi-automatic bench operations. This industry standard press will accept the most common industry standard applicators in the market place, thereby reducing tooling costs and providing production flexibility. This Molex air-feed crimp press will also accept Molex air-feed applicators that process product mounted on Mylar* tape.

*Mylar is a registered trademark of E.I. du Pont de Nemours and Company

Features

- Accepts FineAdjust™ and Mini-Mac applicators with side and rear feeds; uses most industry standard applicators reducing tool costs and providing production flexibility
- Direct-drive, split-cycle press accepts Molex air-feed applicators for terminals mounted on tape
- Shut-height adjustment level pre-set to industry standard 135.80mm (5.45") to accept industry standard applicators and allow for adjustment to hit the crimp height target
- Re-settable count provides accurate batch counting
- Meets OSHA safety and noise requirements reducing risk of injury
- Safety interlock switch is attached to guard preventing press from cycling if guard is open during operation

Electrical

Voltage: 63800-8300—115V AC, 1 Ph, 60Hz, 5.8A
63800-8400—230V AC, 1 Ph, 50Hz, 2.9A

Mechanical

Dimensions (with reel mounting):
Height—1,260mm (49")
Width—560mm (22")
Depth—686mm (27"
Dimensions (without reel mounting):
Height—1,044mm (41.00")
Width—350.00mm (13.70")
Depth—686.00mm (27.00")
Weight: Gross—159kg (350 lb)
Unpacked—145kg (320 lb)
Mechanics: Stroke 38.10mm (1.50")
Rate: 2500 terminations per hour, depending on operator's skill and application; up to 10 AWG (5.0mm²) of copper conductor

Description	Order No.	Volts	Used With
TM-3000™	63801-7200	115V	FineAdjust and Mini-Mac Applicators
	63801-7300	230V	

TM-42 Crimp Press



The TM-42 Crimping Press provides an effective method of applying a wide range of side feed terminals to a pre-stripped discrete wire and cable. The TM-42 is an inexpensive, electrically controlled, single cycle flywheel press designed for mid-volume, semi-automatic bench operation.

The TM-42 exclusively uses Molex T2 Terminator Dies and Molex Terminator Dies. These two types of dies are very inexpensive and make this crimping system economical.

Features

- Utilizes the Molex T2 and Terminator Die Tooling
- Independent conductor and insulation adjustments with position indicators for quick and accurate adjustments
- Can terminate most terminals from the Molex product line
- TM-42 has tooling available which allows for the termination of FFC and IDT connectors
- Quick release tooling feature for fast, simple changeover that will increase productivity
- Ability to remove upper crimp tooling without the need to remove lower die
- Meets OSHA safety and noise standards plus this press is CE approved for use in Europe
- Totally enclosed for operator safety, including power shut-off if guard is not properly in place
- Complete press designed to metric standards

Electrical

Voltage: 69002-5001—115V AC, 1 Ph, 60Hz, 5.8A
69002-5000—230V AC, 1 Ph, 50Hz, 2.9A

Mechanical

Dimensions (with reel mounted):
Height—1,150mm (45.00")
Width—540mm (21.20")
Depth—330mm (13.00")
Dimensions (without reel mounted):
Height—950mm (36")
Width—330mm (13")
Depth—330mm (13")
Weight: Gross—110kg (242 lb)
Unpacked—100kg (220 lb)
Processing Capability: 2500 terminations per hour, depending on operator's skill and application; up to 10 AWG (4.0mm²)

Description	Order No.	Volts	Used With
TM-42	69002-5001	115V	Molex T2 and Terminator Die Tooling
	69002-5000	230V	

Semi-Automatic Bench Top Crimping Presses

3BF Bench Press*



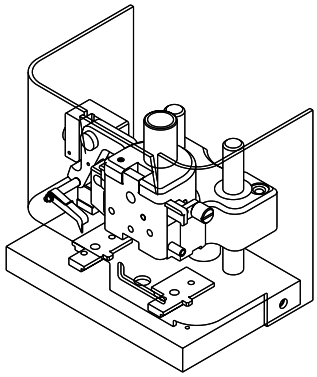
Features

- Utilizes Molex Base Unit and TM-40/42 Terminator Dies and notching dies
- Meets OSHA safety and noise requirements
- Includes external work lamp
- Minimum electrical and mechanical maintenance
- Used 3BF Presses can be purchased on a rebuild basis only and are subject to availability

Specifications

Size without Reel Arm: Width—711mm (28")
Depth—457mm (18")
Height—787mm (31")
Size with Reel Arm: Width—940mm (37")
Depth—457mm (18")
Height—1016mm (40")
Weight: 79.5kg (175 lb)
Electrical: Voltage—110V AC, 60 Hz
Current—5.5A
Tonnage: 26.7kN (3 tons) 10 AWG
Stroke Length: 38.10mm (1.500")
Shut Height: Adjustable
Rate: Up to 2500 terminations per hour, dependent on operator speed and application
Note: 3BF replacement parts available from:
Benchmaster Products, Inc.
12981 E. 166th St.
Cerritos, CA 90701 (USA)
(310) 926-6906 or (800) 421-5225

Base Unit Terminator



Features

- Adapts to the Molex 3BF Press to accommodate TM-40/42 Terminator Dies
- Low cost method of achieving flexibility in terminating various contact configurations in the same press
- Adjustable positive feed positioning
- Quick insulation and conductor crimp height adjustments
- No press ram adjustments after initial set-up
- Safety guard included with each unit

Specifications

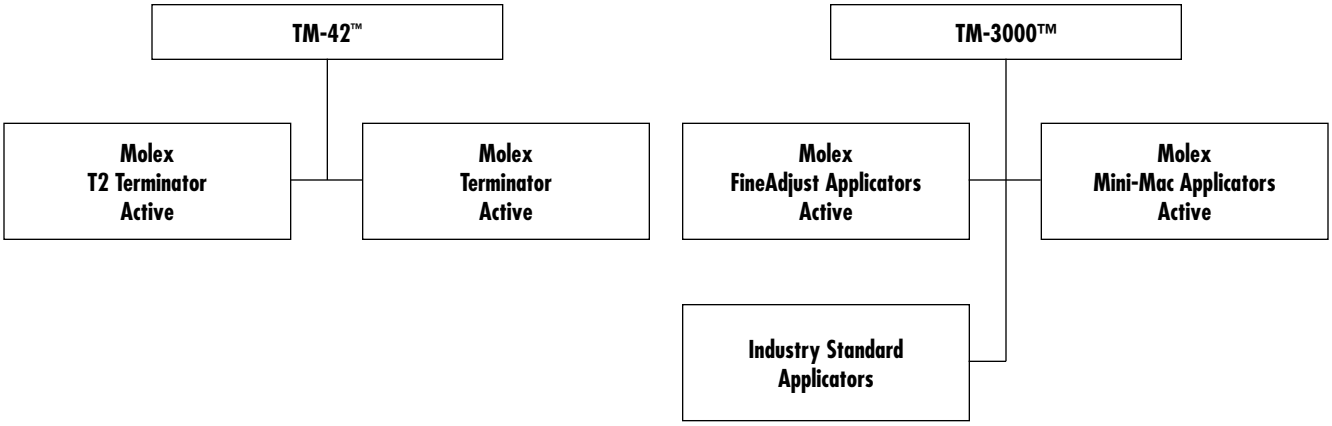
Size: Width—190mm (7.5")
Depth—127mm (5")
Height—7.2mm (6.5")
Weight: 7.2kg (16 lb)
Adjustments: Conductor Crimp Height—0.025mm (.001")
Total Adjustments—0.625mm (.025")
Insulation Crimp Height—0.203mm (.008")
Total Adjustment—1.626mm (.064")

Description	Order No.	Used With
Base Unit Terminator for Molex 3BF Press	11-19-3001	T2 and Terminator Dies

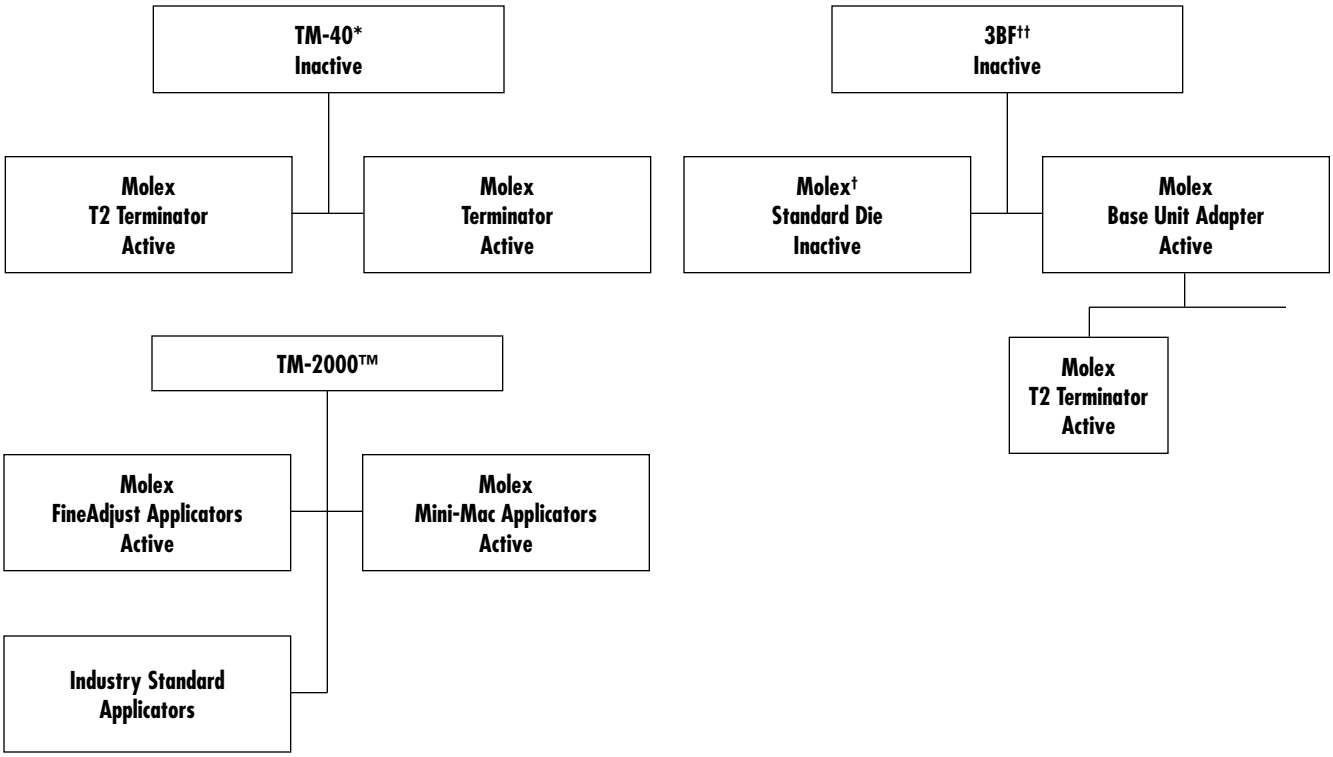
*This press is not available for purchase

Semi-Automatic Bench Top Crimp Press Tooling Matrix

Active Semi-Automatic Press and Active Tooling Matrix



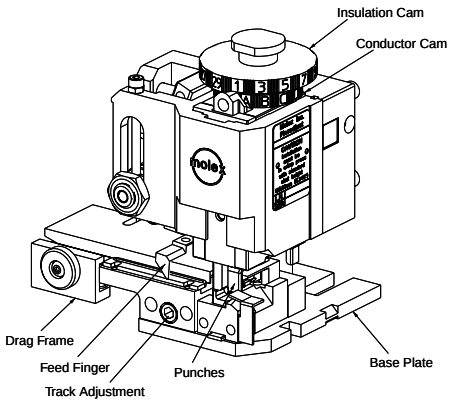
Inactive Semi-Automatic Press and Active Tooling Matrix



*Inactive means Molex no longer manufactures that press; however, we still provide crimp tooling for customers who have those presses
†Repair parts are not available for the Standard Die
††On the 3BF press, Molex no longer supplies spare parts. Contact Benchmaster.

Semi-Automatic Bench Top Crimp Press Tooling

FineAdjust Applicator



The Molex FineAdjust Applicator is an improved version of the Molex Mini-Mac Applicator. The FineAdjust will be replacing the Mini-Mac where possible. Most 14 AWG and lower (16, 18, 20, etc.) will be designed into the FineAdjust Applicator over time.

The Molex FineAdjust Applicator is designed to provide an effective method of applying a wide range of side feed terminals to a prestripped discrete wire and cable. It is the most advanced version of a "universal" crimping tool available. This applicator works in the Molex TM-3000™ and TM-2000 Universal Press and in most industry standard presses. The FineAdjust applicator offers minimal setup time without the need for shimming, is versatile, reliable, easy to install, and is designed for mid- to high-volume, semi- or fully-automatic operations.

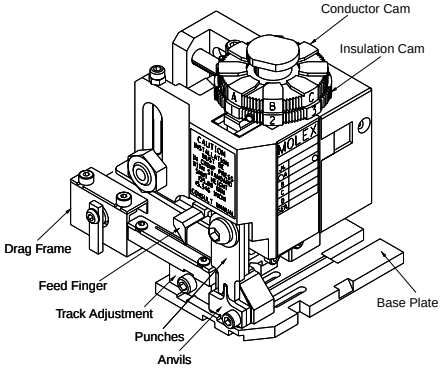
Features

- Fine adjustment allows users to achieve target with little effort by adjusting on increments of 0.15mm (.0006") for conductor crimp height and .063mm (.0025") for insulation height
- Independent adjustment rings allow users to quickly adjust the conductor or insulation crimp height without affecting each other
- Quick tooling removal with the push of a button for fast and easy tooling change
- Track adjustment for bellmouth and cut-off tab is adjusted while the applicator is in the press for fast and easy setup
- Compatible with the Molex TM-3000™ and TM-2000 Universal Press and most industry standard presses, however, it does not fit into Molex TM-40/42 press
- Directly adapts to most automatic wire processing machines
- Quick set-up time; plus the crimp height, track and feed adjustments can be preset in applicator
- Applicator designed to industry standard mounting and shut height 135.80mm (5.346")
- FineAdjust available for most Molex brand terminals

Mechanical

Dimensions: Height—152mm (6.00")
Width—132mm (5.20")
Depth—101mm (4.00")
Weight: Gross—5.4kg (12 lb)
Unpacked—4.1kg (9 lb)
Mechanics: Stroke 28.5mm (1.125") and 41.3mm (1.625")
Shut Height: 135.8mm (5.346")
Processing Capability: 2500 terminations per hour, depending on operator's skill and application

Mini-Mac Applicator



The Molex Mini-Mac Applicator is designed to provide an effective method of applying a wide range of side feed terminals to a pre-stripped discrete wire and cable. This applicator works in the Molex TM-3000™ and TM-2000 Universal Press and in most industry standard presses. The Mini-Mac Applicator is versatile, reliable, easy to install, and is designed for mid- to high-volume, semi- or fully-automatic operations.

Terminals that are 12 AWG and larger (10, 8, etc.) will continue to be designed into the Molex Mini-Mac applicator. Terminals that arre 14 AWG and smaller (16, 18, 20, etc.) will eventually be designed into the Molex FineAdjust applicator, where possible.

Features

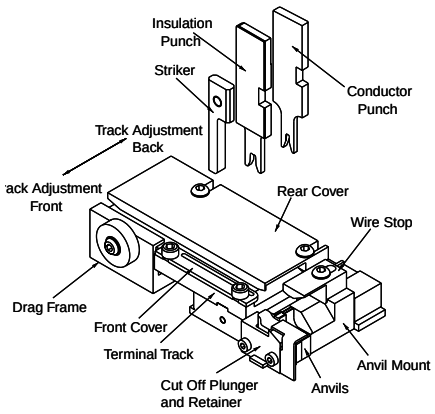
- Conductor and insulation rings allow quick adjustment for conductor and insulation diameter change
- Quick set-up time; plus the crimp height, track and feed adjustments can be preset in applicator
- Compatible with the Molex TM-3000™ and TM-2000 Universal Press and most industry standard presses, however, it does not fit into the Molex TM-40™ or TM-42™ presses
- Applicator designed to industry standard mounting and shut height 135.80mm (5.346")
- Directly adapts to most automatic wire processing machines
- Mini-Mac available for most Molex brand terminals

Mechanical

Dimensions: Height—152mm (6.00")
Width—132mm (5.20")
Depth—101mm (4.00")
Weight: Gross—5.4kg (12 lb)
Unpacked—4.1kg (9 lb)
Mechanics: Stroke 28.5mm (1.125") and 41.3mm (1.625")
Shut Height: 135.8mm (5.346")
Processing Capability: 2500 terminations per hour, depending on operator's skill and application

Semi-Automatic Bench Top Crimp Press Tooling

T2 Terminator Dies



The Molex T2 Terminator is the newer version tool that allows for track adjustment. It contains the identical perishable tooling as the Molex FineAdjust applicator. (Center carrier excluded.) The Molex T2 Terminator will be replacing the Molex Terminator where possible. Most 14 AWG and lower (16, 18, 20, etc.) will eventually be designed into the T2 over time.

The Molex T2 Terminator is an easy to use tool for the termination of a variety of Molex crimp terminals. Production flexibility is obtained through the use of simple interchangeable tooling. The tooling is inexpensive, and unlike a modular applicator, all crimp height and terminal feed adjustments are located in the press. The terminator die can be installed in the TM-42, TM-40 presses or Base Unit adaptor, and is ideally suited for mid-volume bench operation.

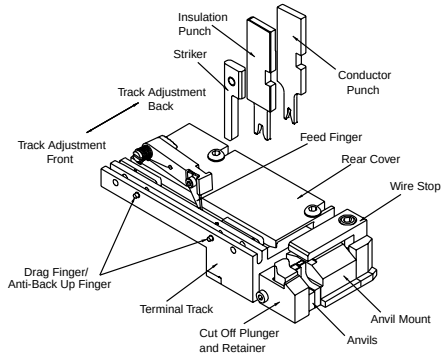
Features

- Flexible and inexpensive
- Enhanced crimping productivity
- Simple installation
- Quick release punches
- T2 terminator has standardized tooling with Molex FineAdjust Applicator
- Track adjustment capabilities in the T2 Terminators for improved control of the bellmouth size and cutoff tab length

Mechanical

Dimensions: Height—25mm (1.0")
Width—127mm (5.0")
Depth—44mm (1.8")
Weight: 1.4kg (3.0 lb)

Terminator Dies



The Molex Terminator is an easy to use tool for the termination of a variety of Molex crimp terminals. Production flexibility is obtained through the use of simple interchangeable tooling. The tooling is inexpensive, and unlike a modular applicator, all crimp height and terminal feed adjustments are located in the press. The terminator die can be installed in the TM-42, TM-40 presses or Base Unit adaptor, and is ideally suited for mid-volume bench operation.

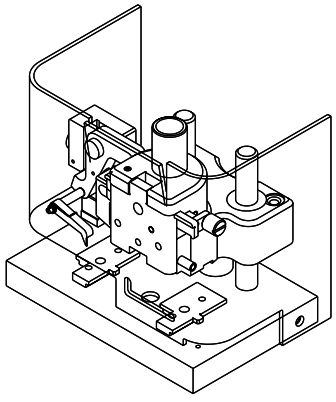
Features

- Flexible and inexpensive
- Enhanced crimping productivity
- Simple installation
- Quick release punches

Mechanical

Dimensions: Height—25mm (1.0")
Width—127mm (5.0")
Depth—44mm (1.8")
Weight: 1.4kg (3.0 lb)

Base Unit Terminator



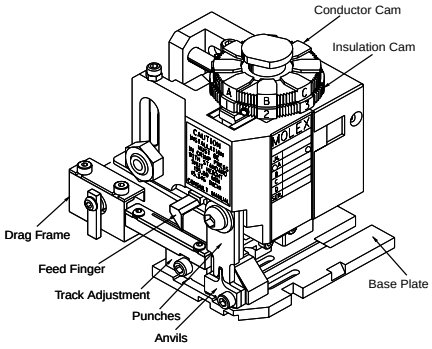
Features

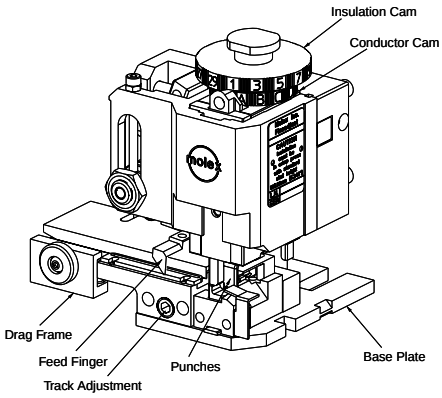
- Adapts to the Molex 3BF Press to accommodate TM-40, TM-42 Terminator Dies
- Low cost method of achieving flexibility in terminating various contact configurations in the same press
- Adjustable positive feed positioning
- Quick insulation and conductor crimp height adjustments
- No press ram adjustments after initial set-up
- Safety guard included with each unit

Specifications

Size: Width—190mm (7.5")
Depth—127mm (5")
Height—7.2mm (6.5")
Weight: 7.2kg (16 lb)
Adjustments: Conductor Crimp Height—0.025mm (.001")
Total Adjustments—0.625mm (.025")
Insulation Crimp Height—0.203mm (.008")
Total Adjustment—1.626mm (.064")

Fully Automatic Wire Process Machines





Molex does not offer a line of wire process machines. However, our FineAdjust and Mini-Mac Applicators are designed to work in most standard wire process machines. These applicators can be quickly changed over from pre-feed to post-feed for a wire processor. Contact Molex (1-800-786-6539) and ask for Application Tooling. We can answer questions and provide recommendations for wire processor machines.

How to Order Crimp Tooling

You need to answer the following questions:

1. Verify you are using Molex Terminals and write down the product order number
   - Molex Application Tooling designs its tooling (hand tools, applicators, and dies) specifically for Molex terminals. If you are using non-Molex terminals, those terminals have not been qualified in our tooling. Therefore, we can not guarantee its performance.
2. Volume—You need to determine your volume requirement
   - Hand Tool—Prototyping and/or field repair
   - Semi-Automatic Tooling—Low to medium production volumes
   - Fully-Automatic—High product volumes
3. Wire Gauge—Verify the gauge wire you are using (For example, 16 AWG, 18-24 AWG)
4. Insulation Diameter—Verify the insulation diameter of the wire you will be using
5. What type of tooling are you currently using
   - This will help determine what type of tooling package is needed. For example, if you are using hand tools only and are inquiring about applicators, you will also need a press (TM-2000—Applicators, TM-42—Terminator Dies). If you are using applicators your production requirements may or may not require that you purchase another press.

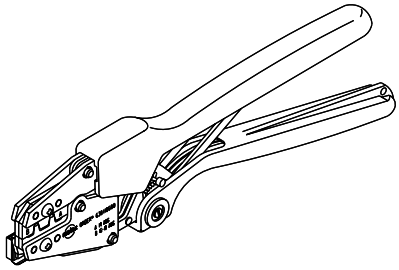
Wire Gauge Classifications*

AWG	(Stranding/AWG)	Diameter	Circular Mils	Area
4/0	(2107/30)	13.26 (0.522)	210700	106.764 (0.16548)
3/0	(1672/30)	11.79 (0.464)	167200	84.722 (0.13132)
2/0	(1330/30)	10.52 (0.414)	133000	67.392 (0.10446)
1/0	(1045/30)	9.35 (0.368)	104500	52.951 (0.08207)
2	(665/30)	7.42 (0.292)	66500	33.696 (0.05223)
4	(420/30)	5.89 (0.232)	42000	21.282 (0.03299)
6	(266/30)	4.67 (0.184)	26600	13.478 (0.02089)
8	(1/30)	3.25 (0.128)	16384	8.302 (0.01287)
	(19/21)	3.68 (0.145)	15433	7.820 (0.01212)
	(49/25)	3.73 (0.147)	15700	7.955 (0.01233)
	(133/29)		16983	8.605 (0.01334)
	(168/32)		16800	8.513 (0.01319)
	(665/36)		16625	8.424 (0.01306)
10	(1)	2.59 (0.102)	10384	5.261 (0.00816)
	(37/26)	2.92 (0.115)	9354	4.740 (0.00735)
	(49/27)	2.95 (0.116)	9880	5.006 (0.00776)
	(105/30)		10500	5.320 (0.00825)
12	(1)	2.06 (0.081)	6529	3.308 (0.00513)
	(7/20)	2.44 (0.096)	7168	3.632 (0.00563)
	(19/25)	2.36 (0.093)	6088	3.085 (0.00478)
	(37/28)	2.29 (0.090)	5874	2.976 (0.00461)
	(65/30)	2.41 (0.095)	6500	3.294 (0.00511)
	(165/34)		6549	3.318 (0.00514)
14	(1)	1.63 (0.064)	4109	2.082 (0.00323)
	(7/22)	1.85 (0.073)	4481	2.270 (0.00352)
	(19/27)		3831	1.941 (0.00301)
	(41/30)		4100	2.078 (0.00322)
	(105/34)		4167	2.112 (0.00327)
16	(1)	1.29 (0.051)	2581	1.308 (0.00203)
	(7/24)	1.52 (0.060)	2828	1.433 (0.00222)
	(19/29)	1.47 (0.058)	2426	1.229 (0.00191)
	(26/30)	1.50 (0.059)	2600	1.317 (0.00204)
	(65/34)		2580	1.307 (0.00203)
	(105/36)	1.47 (0.058)	2625	1.330 (0.00206)
18	(1)	1.02 (0.040)	1624	0.823 (0.00128)
	(7/26)	1.22 (0.048)	1770	0.897 (0.00139)
	(16/30)	1.19 (0.047)	1600	0.811 (0.00126)
	(19/30)	1.24 (0.049)	1900	0.963 (0.00149)
	(41/34)	1.19 (0.047)	1627	0.825 (0.00128)
	(65/36)		1625	0.823 (0.00128)

AWG	(Stranding/AWG)	Diameter	Circular Mils	Area
20	(1)	0.81 (0.032)	1024	0.5189 (0.00080)
	(7/28)	0.97 (0.038)	1111	0.5631 (0.000873)
	(10/30)	0.89 (0.035)	1000	0.5067 (0.000785)
	(19/32)	0.94 (0.037)	1216	0.6162 (0.000955)
	(26/34)	0.91 (0.036)	1032	0.5229 (0.000810)
	(41/36)		1025	0.5194 (0.000805)
22	(1)	0.64 (0.025)	640.1	0.3243 (0.000503)
	(7/30)	0.76 (0.030)	700.0	0.3547 (0.000550)
	(19/34)	0.79 (0.031)	754.1	0.3821 (0.000592)
	(26/36)	0.76 (0.030)	650.0	0.3294 (0.000511)
24	(1)	0.51 (0.020)	404.0	0.2047 (0.000317)
	(7/32)	0.58 (0.023)	442.4	0.2242 (0.000347)
	(10/34)	0.61 (0.024)	396.9	0.2011 (0.000312)
	(19/36)	0.58 (0.023)	475.0	0.2407 (0.000373)
	(41/40)		404.2	0.2048 (0.000317)
26	(1)	0.40 (0.016)	252.8	0.1281 (0.000199)
	(7/34)	0.53 (0.021)	277.8	0.1408 (0.000218)
	(10/36)	0.51 (0.020)	250.0	0.1267 (0.000196)
	(19/38)	0.48 (0.019)	298.0	0.1510 (0.000234)
28	(1)	0.32 (0.013)	158.8	0.0804 (0.000125)
	(7/36)	0.33 (0.013)	175.0	0.0887 (0.000137)
	(19/40)	0.38 (0.015)	187.3	0.0949 (0.000147)
30	(1)	0.25 (0.010)	100.0	0.0507 (0.000079)
	(7/38)	0.30 (0.012)	109.8	0.0556 (0.000086)
	(19/42)		117.8	0.0597 (0.000093)
32	(1)	0.20 (0.008)	63.20	0.0320 (0.000050)
	(7/40)		67.27	0.0341 (0.000053)
	(19/44)	0.23 (0.009)	76.00	0.0385 (0.000060)
34	(1)	0.160 (0.0063)	39.69	0.0201 (0.000031)
	(7/42)	0.191 (0.0075)	43.40	0.0220 (0.000034)
36	(1)	0.127 (0.0050)	25.00	0.0127 (0.000020)
	(7/44)	0.152 (0.0060)	27.44	0.0139 (********)
38	(1)	0.102 (0.0040)	15.68	0.0079 (********)
40		0.079 (0.0031)	9.86	0.0050 (********)
42		0.064 (0.0025)	6.20	0.0031 (********)
44		0.051 (0.0020)	3.92	0.0020 (********)
46		0.041 (0.0016)	2.46	0.0012 (********)
48		0.030 (0.0012)	1.54	0.0008 (********)
50		0.025 (0.0010)	0.98	0.0005 (********)

*Classifications of insulated round Copper conductors

Application Tooling
Hand Crimp Tools



Features and Benefits

- Full-cycle ratcheting hand tool ensures complete crimps
- Long handles for comfortable crimping with reduced crimping force
- Precision user-friendly terminal locator wire stop holds terminals in the proper crimping position where required
- Insulation crimp adjustment allows a precise insulation crimp to meet or exceed the requirement of UL, CSA and Military Class II
- Three-nested tool available, which eliminates the need for additional tools in many applications

Description	Order No.	Used With
Crimp Hand Tools	Dependent on terminal. See website for details.	Molex terminals, splices, quick disconnects and vital relay terminals

19279-0001
Air Tool Crimper*

19078-0307
Bench Adapter Assembly



Features and Benefits

- Pneumatic tool weighing less than 2 pounds produces a higher output with less operator fatigue than standard ratchet-style hand tools
- Consistent, high-quality crimped terminals with die changeover in less than 2 minutes, which increases production output
- Multiple AT-200 die heads available, which provide for production flexibility for a wide range of terminals from 8 to 26 AWG
- All AT-200 crimp heads meet or exceed UL and CSA standards
- Operated on standard shop air (85.95 psi) and is perfect for assembly line operation

Description	Order No.	Used With
Air Tool	19279-0001	Air Tool Heads
*Air Tool Head	Dependent on terminal. See website for details.	Air Tool
†Air Tool Bench Adapter	19078-0307	Air Tool

* Crimp head sold separately
† Air Tool Bench Adaptor sold separately

Application Tooling
Battery Terminals

Hand-Held and Bench Mount Crimpers



Features and Benefits

- Diamond, Hex and Metric crimping available in hand-held and bench mount models
- Bench mount also attaches to wall, service truck, etc.
- Bench mount tool is easier to use, safer and less likely to get damaged or lost
- Patented features
- Made in U.S.A.
- Connector cable range: 8 AWG through 250 MCM
- System of measurement: SAE
- UL listed when applied with Molex HexCrimp tools 19078-0007 and 19078-0008

Description	Order No.
Hand-Held Crimper 8 AWG-250 MCM	19078-0007
Bench Mounted Crimper 8 AWG-250 MCM	19078-0008
Replacement Dies	Contact Molex

HexCrimp, Jr.

19078-0006



Features and Benefits

- Lever-style crimping tool
- Designed for light- and medium-duty applications
- Crimp connectors 1 through 8 gauge
- Crimps all major brands of battery connectors, copper lugs and splices
- Adjustable crimp dies permanently attached
- Comfortable insulated handle

Description	Order No.
HexCrimp Jr. for 8-1 AWG	19078-0006

19294-0008



Features and Benefits

- Used for lower-volume production and maintenance jobs
- For non-insulated wire range 8 AWG through 4/0
- Excellent performance for the lowest cost

Description	Order No.
Manual compact maintenance tool for non-insulated 6-4/0 AWG	19294-0008

19286-0065



Features and Benefits

- Air Powered hydraulic crimper with a dieless head
- For crimping 8 AWG through 500 MCM non-insulated, and 8 AWG through 4/0 insulated ring tongue terminals and splices
- Compact and lightweight

Description	Order No.
Putt Pump Dieless Head System for 8 AWG-500 MCM non-insulated and 8 AWG-4/0 insulated	19286-0065

Application Tooling

19286-0065

Putt Pump
Dieless Head Crimper for Insulated and Non-Insulated Terminals and Splices



Features and Benefits

- Crimps a wide range of products and does not require die set changes, which reduces the overall cost and provides production flexibility
- Swivel base and terminal locator included to provide the operator with a user-friendly tool to increase productivity
- Complete lightweight system that allows the tool to be moved and stored easily

Specifications

Pneumatic: Supply Pressure—100 psi
Air Pressure—125 psi max.
Cycle Time: 15 seconds

Tool Order No.	Wire Gauge (AWG)	Operating Pressure
19286-0065	8	40 psi
	6	45 psi
	4	50 psi
	2	55 psi
	1	65 psi
	1/0	65 psi
	2/0	70 psi
	3/0	75 psi
	4/0	75 psi
	250 MCM	85 psi
	300 MCM	90 psi
	350 MCM	90 psi
	400 MCM	100 psi
	500 MCM	100 psi

Description	Order No.	Used With
Hydraulic Hand Crimp Tool	19286-0065	Insulated and non-insulated terminals and splices 8 AWG-4/0

Note: The pressure setings shown in the chart refer to the SPX power team pump that is currently shipped with the PPDLH tool. Please review the instructions sent with your specific tool.

Application Tooling Manual PPHHLS

19286-0117

Putt Pump
Hydraulic Head Crimper for Insulated and Non-Insulated Terminals and Splice



Features and Benefits

- Multiple crimping dies available for a wide wire range, which provides production flexibility
- Crimping dies are easily and quickly interchanged to reduce production downtime
- Lightweight system that allows the tool to be moved and stored easily

Specifications

Pneumatic: Supply Pressure—100 psi
Air Pressure—125 psi max.
Cycle Time: 15 seconds

Tool Order No.	Wire Gauge (AWG)	Die Set for the PPDLH 19286-0117	
		VersaKrimp™ Terminals and Splices	NylaKrimp™/InsulKrimp™ Terminals and Splices
19286-0117	8	19290-0001	19289-0001
	6	19290-0004	19289-0004
	4	19290-0007	19289-0007
	2	19290-0010	19289-0010
	1		
	1/0	19290-0011	19289-0011
	2/0	19290-0012	19289-0025
	3/0	19290-0028	19289-0028
	4/0	19290-0031	19289-0031

Description	Order No.	Used With
Hydraulic Hand Crimp Tool	19286-0117	Insulated and non-insulated terminals and splices 8 AWG-4/0
Bench Adapter	19286-0051	PPHHLS

Application Tooling

19286-0107
DDLH Manual Crimp Hand Tool Dieless



Features and Benefits
- Hand-held tool with 360° swivel head that permits use in confined areas
- Crimps a wide range of terminals for production flexibility
- External pressure adjustment allows operator to change setting easily
- Insulated fiberglass handles reduce shock hazard
- Steel carrying case included to prevent damage to the tool

Mechanical
Dimensions: Width—146mm (5.75")
Length—554mm (22.00")
Weight: 5.22kg (11.50 lb)
Force Output: 6.2 tons at 10,000 psi

Tool Order No.	Wire Gauge (AWG)	Pressure Setting
19286-0107	8	3.0
	6	3.5
	4	4.0
	2	4.5
	1	6.0
	1/0	6.0
	2/0	6.5
	3/0	7.0
	4/0	7.0

Description	Order No.	Used With
Hand Crimp Tool	19286-0107	Insulated and non-insulated terminals and splices 8 AWG-4/0

Application Tooling

64001-3900
Heavy-duty Crimper



Features and Benefits
- Heavy-duty cable crimping tool with hand-held precision
- Handles insulated and non-insulated terminals in wire sizes 2 to 8 AWG
- Perfect for maintenance and lower-volume requirements
- A ratchet feature is standard
- Long handles give maximum mechanical advantage

Description	Order No.	Used With
Crimp Hand Tool	64001-3900	Insulated and non-insulated terminals, 2-8 AWG

Application Tooling

19284-0034
E-406
Manual Crimp Hand Tool



Features and Benefits
- Three interchangeable die sets come with the tool and are stored on the handle when not in use, which provides flexibility
- High-quality construction will provide longevity with proper care of the hand tool

Specifications
Weight: 1.81kg (4.0 lb)
Size: Height: 457mm (18.0")

Tool Order No.	Wire Gauge (AWG)	Die Insert
19284-0034	8	Insert A
	6	
	4	
	2	Insert C
	1	
	1/0	Insert B
	2/0	
	3/0	No Insert
	4/0	

Description	Order No.	Used With
Hand Crimp Tool	19284-0034	Insulated and non-insulated terminals and splices 8 AWG-4/0

Note: On some standard and minimum gauge cables, recrimping the asembly with the next smaller insert may be advisable for maximum circuit efficiency.

ATP-301
Air Tape Press

19228-0030



The ATP-301 air crimping press is an economical, electrically-controlled, air-powered termination machine. It is designed to provide an effective method for low cost, high-quality terminations of all Molex mylar tape carried products, sizes 8 to 26 AWG. It is extremely versatile and works in many manufacturing environments.

Features and Benefits

- Accepts multiple, inexpensive die sets, which provides production flexibility
- Die set and product changeovers are quick and easy, reducing production down time
- Compact design and light weight make this unit ideal for a production environment
- Double index feature allows products with double spacing to process through this unit with the proper die set
- Meets ISO standards

Specifications

Air Pressure: 95-100 psi (at the press)
6.55 / 7.58 Bar
Air Volume: 1 Press 1.5 scfm (.00071m^3/s)

Electrical

Voltage: 120V AC, 60 Hz

Mechanical

Dimensions (With 24" Reel Mounting):
Height—889.00mm (35.00")
Width—1009.60mm (39.75")
Dimensions (Without Reel Mounting):
Height—355.60mm (14.00")
Width—355.60mm (14.00")
Depth—279.40mm (11.00")
Weight: Gross—115kg (52 lb)
Unpacked—97kg (44 lb)
Tape Reel Sizes: 355.60mm (24.00")
635.00mm (24.00")

Production Rate

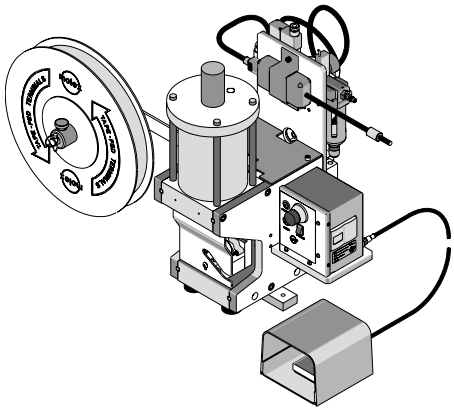
Dependent on terminal product selection and operator skill
Single Index—2800 per hour
Double Index—2500 per hour

Description	Order No.	Used With
ATP-301 Air Crimp Press	19228-0030	Tape Carried Product, 8-26 AWG*

*Some tool kits available for 6 AWG product; however, the press is recommended to 10 AWG. 6 AWG and 8 AWG product should be for small prototype runs only—not production. Proceed at your own risk. For 4 to 8 AWG insulated and non-insulated terminal production runs, please see the 19047-0001 (ATP-201) Air Tape Press.

ATP-201™ Air Tape Press

19047-0001



The ATP-201 (19047-0001) Air Tape Press is an economical, electrically controlled, air powered termination machine. It is designed to provide an effective method for low cost, high quality terminations of Molex tape carried products including 4 to 8 AWG insulated and non-insulated terminals and 2 to 8 AWG non-insulated BCL series lugs.

Features and Benefits

- Accepts multiple, inexpensive die sets, which provide production flexibility
- Die set and product changeovers are quick and easy, reducing production down time
- Compact design and light weight make this unit ideal for a production environment
- Double index feature allows products with double spacing to process through this unit with the proper die set
- Meets ISO standards

Electrical

Voltage: 120V AC, 60 Hz

Air Pressure

95-110PSI (At the press)
6.55/7.58 Bar

Air Volume

1 Press 1.5 scfm (.00071m^3/s)

Mechanical

Dimensions (With 24" Reel Mounting):
Height—889.00mm (35.00")
Width—1009.60mm (39.75")
Dimensions (Without Reel Mounting):
Height—491.50mm (19.35")
Width—355.60mm (14.00")
Depth—279.40mm (11.00")
Weight: Gross—220.4kg (100 lbs.)
Unpacked—165.4kg (75 lbs.)
Tape Reel Sizes: 355.60mm (14.00")
635.00mm (24.00")

Production Rate

Dependent on terminal product selection and operator skill
Single Index—2800 per hour
Double Index—2500 per hour

Description	Order No.	Used With
*ATP-201 Air Tape Press	19047-0001	Tape Carried Product, 4-8 AWG insulated and non-insulated terminals and 2-8 AWG non-insulated BCL lugs

*Press accepts multiple die sets (not ATP-301 die sets). Review Molex tape product part number on Molex website to see the proper die set for ATP-201 that is linked. If unable to find the proper die set, please call 1-800-786-6539 and speak with a Molex Inside Sales representative

MagKrimp™ Application Tooling

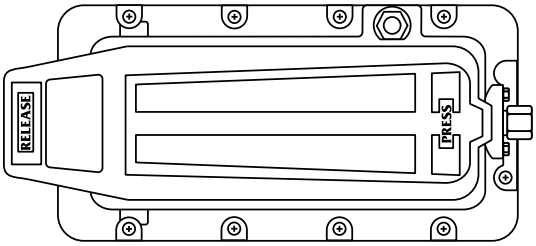
19286
Hydraulic Pump

Features and Benefits

- Air-driven hydraulic pump with foot actuator
- Pump, hold and release modes of operation
- Equipped with pioneer male hydraulic coupler
- Torqued for 6.35mm (.250") NPT air hose fitting (not supplied)
- For light- to medium-duty OEM applications
- Operates all hydraulic installing heads

Specfications

Pressure: 10,000 psi max.
Recommended Operation Pressure: 9600 to 10,000 psi at 90 to 95 psi
Minimum Air Operating Pressure: 90 psi
Maximum Air Operating Pressure: 120 psi
Reservoir Capicity: 17 lb
Size: 10" L by 5" W by 7-3/4"



Description	Order No.
Hydraulic Putt Pump	19286-0059
6 Foot Hydraulic Hose	19286-0041
10 Foot Hydraulic Hose	19286-0042

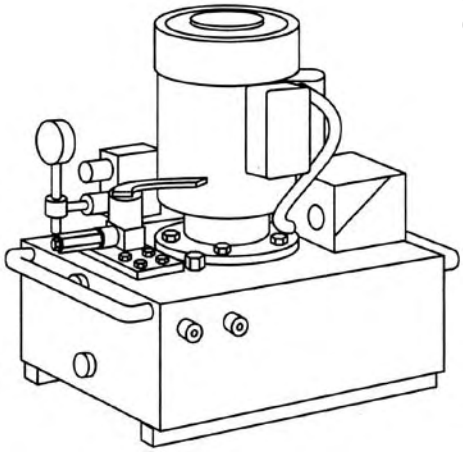
Electric Hydraulic Pump

19078-0160

This high-pressure, heavy-duty hydraulic pump is used with single action cylinders and tools rated for 10,000 PSI operation. This pump is equipped with a special control circuit that requires full hydraulic pressure to be developed before the crimping will open. This assures that a proper crimp is made independent of operator judgment.

Specfications

Motor Rating: 1-1/2 H.P. 115 Volts - 60 Hz - 23 Amps
Maximum Pressure: 10,000 psi
Pumping Capacity: 235 cu. in/min. at 200 psi
61 cu. in/min. at 8,000 psi
Reservoir Volume: 2 gal (1-1/4 gal useable) hydraulic oil (ASTM1 viscosity grade of 215)
Overall Dimensions: Four 1/2-20NF mounting holes, 10" by 8"
Pump is equipped with casters which snap into mounting holes to permit easy movement.
Weight: 60 lb without oil
Applications: Pump is suitable for use with all Molex hydraulic tools



Description	Order No.
Electric Hydraulic Pump	19078-0160
6 Foot Hydraulic Hose	19286-0041
10 Foot Hydraulic Hose	19286-0042
Rebutt Electric Hydraulic Pump	64001-0081
Accessories: Hand Switch	19078-0197
Accessories: Foot Switch	19078-0196

MagKrimp™ Application Tooling

19078

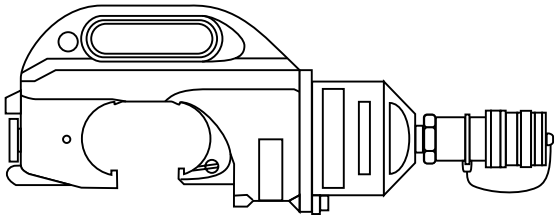
Hydraulic Head (Open Yoke) 12 Ton 14 AWG to 230,000 CMA

Features and Benefits

- Crimp taps, butt and parallel splices and terminals
- Can be hand-held, suspended from above or bench mounted

Physical

Overall Length: 11-1/2"
Width: 4-1/4"
Operating Pressure: 10,000 psi max.
Weight: 10 lb
Output: 24,000 lb nominal



Description	Order No.
Includes Head 19078-0129, Pump 19253-0079 and Hoses. Light to medium duty applications.	19078-0122
Includes Head 19078-0129, Heavy Duty Electric Hydraulic Pump 19078-0160 Hoses and Foot Pedal. Heavy duty applications.	19078-0192
Accessories: Optional Bench Mount Bracket	19286-0051

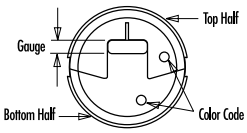


Fig. 1

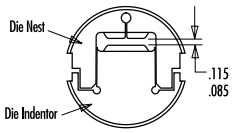


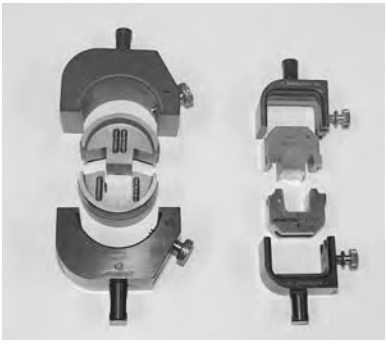
Fig. 2

Die Order No.	Fig.	Color Code	Terminal Order No.	Die Gauging	
				Maximum	Minimum
19078-0130	1	Red	19195-1012 19195-1006 19195-1022 19195-1002 19195-1115	.174	.162
19078-0131	1	Blue	19195-1004 19195-1007 19195-1035 19195-1021 19195-1037 19195-1011 19195-1019	.246	.234

Die Order No.	Fig.	Color Code	Terminal Order No.	Die Gauging	
				Maximum	Minimum
19078-0132	1	Green	19195-1027 19195-1056 19195-1085 19195-1136 19195-1138	.470	.464
19078-0133	1	White	19195-1018	.112	.097
19078-0134	1	Yellow	19195-1005	.194	.179
19078-0176	1	Orange	19195-1032	.374	.359
19078-0135	2	None	19195-1023, 1034, 1031, 1040, 1041, 1044, 1047	*	

* Dies do not bottom. Gauge height will depend on number and size of wires in barrel. Pump must deliver 9800 psi.

Adapter Sets



Molex adapter die sets consists of two nests, upper and lower, which are interchangeable. One set is to be used only with AMP's hydraulic tool 69082. The dies fit into the AMP tool the same way as AMP's dies fit into the 69082 crimp head. The second set is for AMP's tool 69099.

Die Order No.	Description	AMP Tool No.
19078-0818	Adapter die set Individual upper/lower die set	69082
19078-0819		
19078-0825		69099
19078-0826		

The Molex adapter die sets are designed for the following MagKrimp dies only.

Die Order No.	Description	AMP Tool No.
19078-0130	Red	69082
19078-0131	Blue	
19078-0132	Green	
19078-0133	White	
19078-0134	Yellow	
19078-0135	None	
19078-0176	Orange	
19078-0800	Red	69099
19078-0803	Blue	
19078-0806	White	
19078-0809	Yellow	

MagKrimp™ Application Tooling

19078

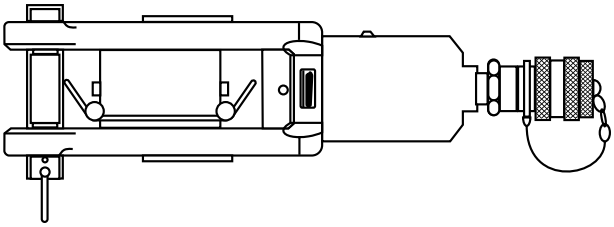
Hydraulic Head (Closed Yoke)
12 Ton
14 AWG to 215,000 CMA

Features and Benefits

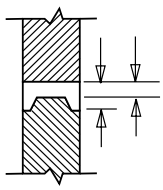
- Crimps butt splices, parallel splices and terminals
- Can be hand held or bench mounted
- Offers maximum clearance for crimping short leads or tight spaces

Physical

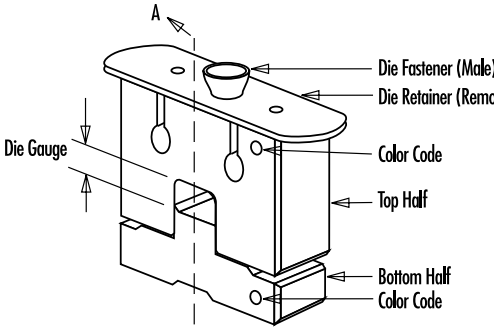
Overall Length: 14-1/2"
Width: 3-5/16"
Operating Pressure: 10,000 psi max.
Weight: 15 lb
Output: 24,000 lb nominal



Description	Order No.
Includes Head 19078-0136, Pump 19253-0079 and Hoses Light to medium duty applications	19078-0123
Includes Head 19078-0136, Heavy Duty Electric Hydraulic Pump 19078-0160, Hoses and Foot Pedal Heavy duty applications.	19078-0194



Gaugings Section A-A
for 19078-0141



Die Order No.	Color Code	Terminal Order No.	Die Gauging	
			Maximum	Minimum
19078-0137	Red	19195-1022	.174	.162
		19195-1006		
		19195-1012		
		19195-1115		
		19195-1002		
19078-0138	Blue	19195-1004	.246	.234
		19195-1019		
		19195-1011		
		19195-1007		
		19195-1035		
		19195-1021		
		19195-1037		
19078-0139	Green	19195-1056	.470	.464
		19195-1085		
		19195-1136		
		19195-1138		
19078-0140	Yellow	19195-1005	.190	.183
19078-0141	White	19195-1018	A.108	.102
			B.122	.114

MagKrimp™ Application Tooling

19078

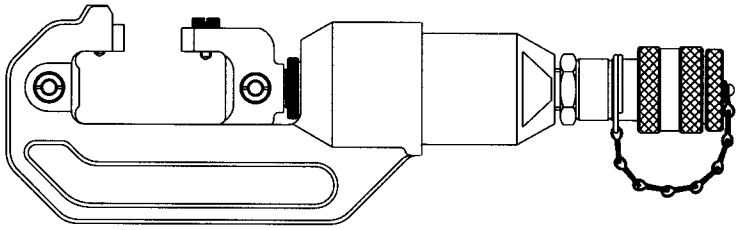
Hydraulic Head (Open Yoke) 6 Ton

Features and Benefits

- Crimp taps, butt and parallel splices and terminals
- Can be hand held, suspended from above or bench mounted

Physical

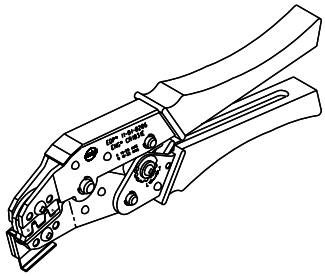
Overall Length: 13.5"
Width: 3.55"
Operating Pressure: 10,000 psi max.
Weight: 7 lb
Output: 12,000 lb nominal

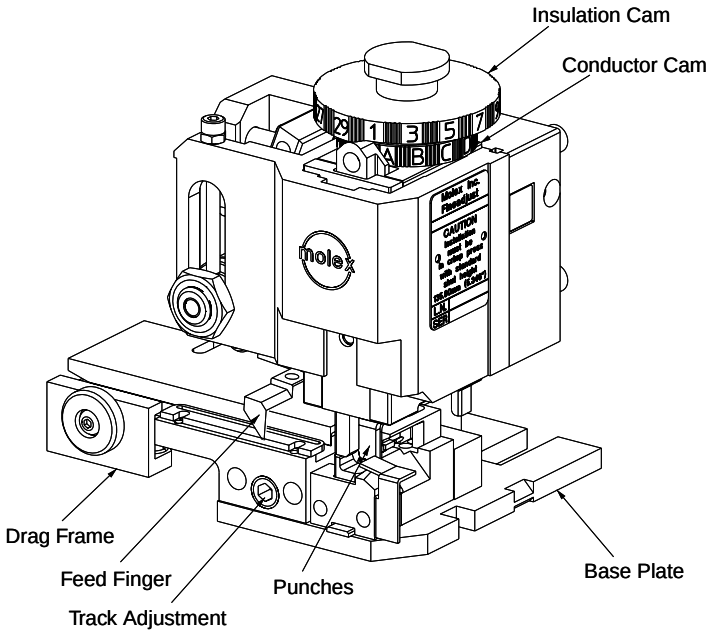


Description	Order No
Open Yoke 6 Ton Head	19078-0789

Die Order No.	Color Code	Terminal Order No.	Die Gauging	
			Maximum	Minimum
19078-0800	Red	19195-1012	.174	.162
		19195-1006		
		19195-1022		
		19195-1002		
19078-0803	Blue	19195-1004	.246	.234
		19195-1007		
		19195-1035		
		19195-1021		
		19195-1037		
		19195-1011		
		19195-1019		
19078-0806	White	19195-1018	.112	.097
19078-0809	Yellow	19195-1005	.194	.179

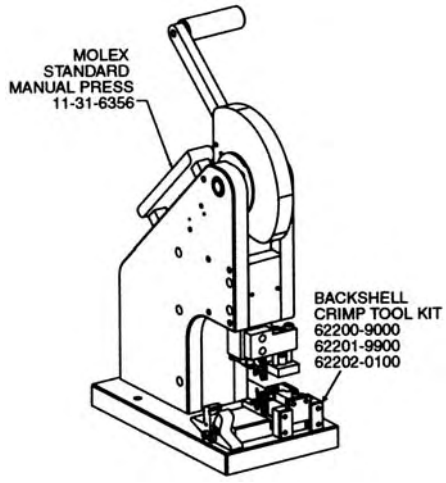
Application Tooling
Commercial Micro-D Crimp Tooling for Contact





Description	Order No.	Product No.
Hand Tool	63811-4800	83000
FineAdjust Applicator	63862-2000	
TL Terminator Die	63852-2000	

Commercial Micro-D Strain Relief Crimp Tooling



Circuits	Description	Order No.	Product No.
9	Hand Tool	62100-0900	83421
15		62100-4100	83442
25		62100-4200	83424
9	Press and Tool Kit	62200-8900	83421
15		62201-9800	83442
25		62202-0000	83424
9	Tool Kit Only	62200-9000	83421
15		62201-9900	83442
25		62202-0100	83424
All	Press Only	11-31-6356	All

Insulation Displacement Technology (IDT) Tooling Hand Tools

Manual RF Coaxial and Ferrule Hand Tool

- For low-volume or portable applications
- Common tool frame with interchangeable dies
- High-quality, high-leverage tool frame
- Eccentric adjustment for closing force
- Full-cycle ratchet for complete crimp
- Ferrule crimp tools have 2 positions, 1 for large diameter and 1 for small diameter requiring 2 actuations to complete a ferrule crimp



Handle



Complete Tool



RF Dies



Ferrule Crimp Die

Description	Order No.		Connector Series	Ferrule Part No.	Ferrule Size (OD)
	Complete Tool	Dies Only			
Hand Tool Frame Only	11-31-6379				
Hand Tool for RF	Order dies and frame separately	11-31-9025	BNC, TNC, for RG/U 55, 58, 141A, 142B	RF Connector	
		11-31-9026	BNC, TNC, for RG/U 59, 62		
		11-31-9027	BNC for RG/U Cable 174, 188, 316		
Ferrule Crimp Hand Tool	Order dies and frame separately	11-32-4152	SEMCONN™ 4 circuit	89-00-3104	7.72/6.45 (.304/.254)
		11-32-4153	SEMCONN 6 circuit	89-00-3106	8.36/7.09 (.329/.279)
		11-32-4154	SEMCONN 8 circuit	89-00-3108	8.86/7.57 (.349/.298)
		11-32-4155	SEMCONN 16 circuit	89-00-3116	10.47/9.19 (.412/.362)
	62100-0100	62100-0101	LFH™	71256-0001	12.17/6.96 (.479/.274)
	62100-0200	62100-0201	LFH	71256-0002	12.17/10.64 (.479/.419)

Insulation Displacement Technology Tooling

Modular Discrete Wire and Ribbon Cable Hand Tools

- Single tool handle with series of snap-on modules for a variety of connectors
- Most modules for discrete wire automatically index to the next position
- A complete tool requires that both a handle and a module be ordered
- Full cycle ratchet feature to assure complete terminations
- For low volume, prototyping and repair
- Pneumatic adapters available



Modular System



A—Hand Tool Handle



Complete Tool



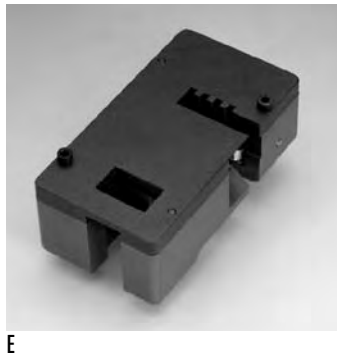
B



C



C



E



F



G



H

Description	Order No.	Type	Use With
Hand Tool Handle	63600-0478	A	Required for all modules

Discrete Wire, Feed-To Only, Self-Indexing			
Description	**Order No.**	**Type**	**Use with Molex Connector**
Module for 2.00mm	11-39-0273	B	30452
Module for 2.50mm SPOX™	69008-0290		42219, 42254
Module for 2.50mm "User Friendly"			90650, 90652
Module for 2.50mm (.098") and 2.54mm (.100")	69008-0225	C	7720, 7720S, 7745, 8951, 40555, 40775, 40798, 40922
Module for 2.54mm (.100")	11-21-5196		7674, 7675, 8633, 40119,40749, 40791, 40915, 41101
Module for 3.96mm (.156")			
Module for 5.00mm (.197") and 5.08mm (.200")	69008-0270		6952, 7823, 7933, 7935
Module for 2.54mm (.100")	62100-0700	B	70400, 70475, 90187
	62100-0300		71178

Discrete Wire, Feed-To and Feed-Through, Self-Indexing			
Description	**Order No.**	**Type**	**Use with Molex Connector**
Module for 4.19mm (.165")	11-39-0303	B	71690, 71694
Module for 3.96mm (.156")	62100-0400	D	7674, 7675

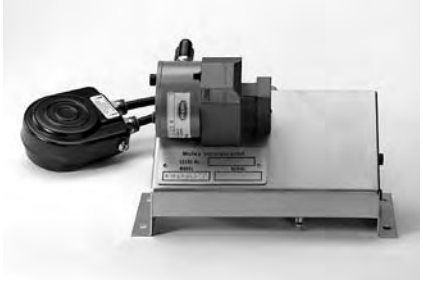
Discrete Wire, Mass Terminate, No Index			
Description	**Order No.**	**Type**	**Use with Molex Connector**
Module for 5.08mm (.200")	11-21-9756	E	70156
	11-32-6027	E	71156

Ribbon Cable, Mass Terminate, No Index			
Description	**Order No.**	**Type**	**Use with Molex Connector**
Module Power Adapter and Table Clamp*	11-31-3337	F	Required for all ribbon cable modules
Module for 1.27mm (.050") MX50™/QF50™ Connectors	69008-0250	G	5320, 5321, 40312
Module for 1.27mm (.050") MX50 Connectors	11-31-3339		70121, 71898
Module, Cable Shear	11-31-3340	H	Cable Shear
Module, Milligrid	62100-2000	Not Shown	87568

* Module power adapter includes 2 bottom bars to accommodate all ribbon cable modules

Insulation Displacement Technology Tooling Pneumatic Hand Tool Adapters

Low Force for Single Wire Feed-To Modules



Features

- For low-volume users
- Utilizes modules from Molex hand tool
- Includes foot pedal and filter for air supply line

Specifications

Size: Width—180mm (7")
Depth—75mm (3")
Height—100mm (4")
Weight: 0.9kg (2 lb)
Pneumatics: Pressure—4 BAR (60psig)
Consumption—2.8L per minute (0.1 CFM)
Rate: Up to 750 cycles per hour, dependent on operator speed and application

Description	Order No.		Use with Molex Connector
	Module	Adapter	
For 2.50mm (.098") and 2.54mm (.100") pitch connectors	69008-0225	11-20-0739	7720, 7745, 7795, 8951, 40775, 40798, 40922
For 2.50mm (.098") pitch connectors	69008-0290		42219, 42254
For 2.54mm (.100") pitch connectors	11-21-5196		40555
For 3.96mm (.156") pitch connectors			7674, 7675, 8633, 40119, 40749, 40791, 40915, 41101
For 5.00mm (.197") and 5.08mm (.200") pitch connectors	69008-0270		7823, 7933, 7935

High Force for Ribbon Cable, Mass Terminating and Feed Through Modules



Features

- For low-volume users
- Utilizes modules from Molex hand tool that require high force and/or feed-through terminations
- Allows user to position module in various orientations
- Clamps to workbench (up to 3" thick)

Specifications

Size: Width—130mm (5")
Depth—180mm (7")
Height—330mm (13")
Weight: 3.2kg (7 lb)
Pneumatics: Pressure—4 BAR (60psig)
Consumption—6L per minute (0.2 CFM)
Rate: Up to 750 cycles per hour, dependent on operator speed and application

Description	Order No.		Use with Molex Connector
	Module	Adapter	
For 2.54mm (.100") pitch connectors	62100-0700	11-31-1570	70400, 70475, 90187
Module for 5.08mm (.200") pitch connector	11-21-9756		70156
	11-32-6027		71156
Module for Mini-Fit IDT	11-39-0303		71694, 71690

Insulation Displacement Technology Tooling Low Force Manual Presses

For Ribbon Cable



Features

- For medium-volume users
- Feed-through or feed-to assembly
- Lightweight and portable

Specifications

Size: Width—152mm (6")
Depth—305mm (12")
Height—254mm (10")
Weight: 8.1kg (18 lb)

Description	Order No.	Use with Molex Connector
.100" Pitch Manual Press	11-20-0179	7720, 40555
.156" Pitch Manual Press	11-20-0314	7674, 7675
.098" Pitch Manual Press*	11-20-0436	8160
.156" Pitch Manual Press	11-20-0815	7660/7664

*For use with connector 8160—up to 20 circuits (terminates feed-to only)

Manual Low Force Press and Interchangeable Tool Kits for QF-50™ for Ribbon Cable



Features

- For medium volume users
- Feed-through or feed-to assembly
- Lightweight and portable
- Cable shearing capabilities
- Interchangeable tooling that is compatible with most competitive presses

Specifications

Size: Width—203mm (8")
Depth—305mm (12")
Height—360mm (14")
Weight: 6.9kg (15 lb)

Description	Order No.	Tool Change Kit Order No.	Use with Molex Connector
Manual Press (Press Only)	11-21-0679		All .050" pitch Molex connectors
Universal Adapter Plate*	11-31-2176		70121, 70625, 71247, 71891
		11-31-2187	5360 Qik Flecs™
		11-31-2335	5320 Qik Flecs

*If customer already has Universal Adapter Plate Assembly, all that is required for each above connector is the appropriate tool change kit
Customer Application Note: If application requires terminating the 71007, 70121, 40312 or 5320 connector above 60 circuits, the customer is advised to check the manual press platen length. All new manual presses are shipped with extended platens measuring 3.75". However, if the customer already has a manual press, it is possible the platen length is 3.25". The platen is a black aluminum "T" shaped piece located at the bottom end of the manual press ram. If the customer expects to terminate 64 circuit connectors, the extended platen (3.75") may be ordered using rder No. 11-10-1055.

Insulation Displacement Technology Tooling
Low Force Manual Presses

Modular Euro Manual Press



Features

- For medium-volume users
- Feed-through or feed-to assembly
- Lightweight and portable

Specifications

Size: Width—152mm (6")
Depth—305mm (12")
Height—457mm (18")
Weight: 7.8kg (17.2 lb)

Description	Order No.	Use with Molex Connector
Manual Press	69020-0660	All equipment listed below
Cable Shear Module	69020-0900	To shear ribbon cable of all sizes
Assembly Module	69020-0680	5320
	69020-0710	5350, 5360, 5370, 5380 QF50
Termination Fixture	69020-0320	7720, 7720S
	69020-0770	7674, 7675
	69020-0785	7790
	69020-1902	90327, 90584
	69020-1908	91577

Insulation Displacement Technology Tooling High Force Manual Press

High Force Manual Press



Features

- For medium-volume users
- Low handle force to reduce operator fatigue
- Portable
- Accepts a large number of connector-type tool kits
- Full-cycle ratchet
- Quick tooling changeover
- Termination height fine adjustment with lock screw

Specifications

Size: Width—152mm (6")
Depth—533mm (10.5")
Height—267mm (21")
Weight: 23kg (50 lb)
Maximum Force: 13.3kN (3000 lb)
Shut Height: 42.00mm (1.650")
Stroke Length: 43.00mm (1.690")

Description	Order No.
Manual Press Only (No Tooling)	11-31-6356

Tooling Kits for High Force Manual Press

Single Termination Discrete Wire



A



B

Connector	Description	Order No.		Figure
		Complete Manual Press	Tool Kit	
30452—2.00mm	Feed-To Only, Manual Index	11-20-1298		A
2.50mm—SPOX™		11-20-1278	11-39-0001	B
2.50mm—"User Friendly"		11-21-9963	11-21-9998	

Mass Termination Discrete Wire Tooling



C

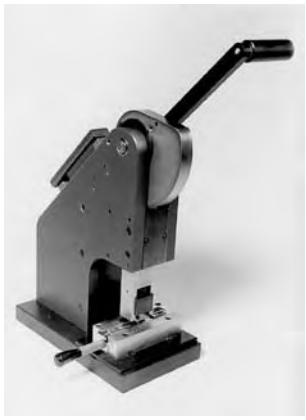


D

Connector	Description	Order No.		Figure
		Complete Manual Press	Tool Kit	
71156	Feed-To or Feed-Trough, No Index—4 Wire	11-20-1286	11-39-0034	C
70156		11-20-1317	11-39-0119	
71690, 71694	Feed-To or Feed-Trough, No Index	11-20-1328	11-39-0277	D

Insulation Displacement Technology Tooling
Tooling Kits for High Force Manual Press

Mass Termination
Ribbon Cable



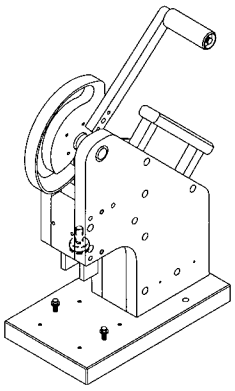
E



F

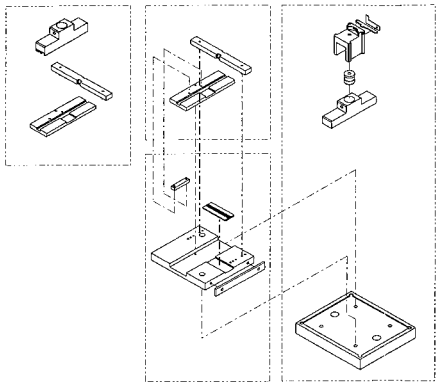
Connector	Description	Order No.		Figure
		Complete Manual Press	Tool Kit	
30452—2.00mm	Feed-To Only	11-20-1327		E
2.50mm—SPOX		11-21-9757	11-32-1956	F
2.50mm—"User Friendly"		11-20-1277	11-39-0002	
87568 MilliGrid 2.00mm	Feed-To and Feed-Through		62100-3200	Not Shown

Mass Termination
Ribbon Cable .050 and .025"

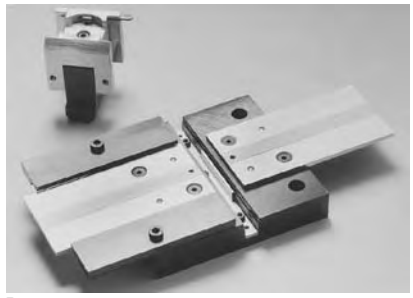


A

D



C B



E

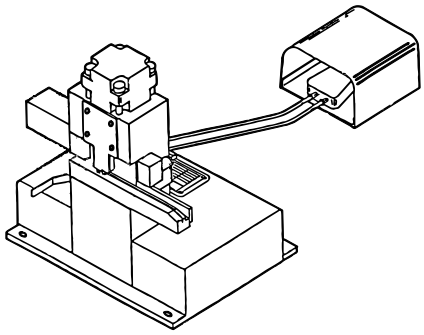
Tooling Accessories		
Description	Order No.	Figure
Universal Adapter Plate	11-31-2176	C
Ribbon Cable Tooling Adapter	11-20-0947	B
Manual Press with Tooling Adapter	11-20-1170	A + B
Universal Adapter Plate and Ribbon Cable Adapter	11-21-9933	B + C

Connector	Description	Order No.		Tool Kit Figure
		Complete Manual Press	Tool Kit Only*	
71522 DL50 Plug	1.27mm (.050") Ribbon Cable Feed-To, Feed-Through	11-20-1163		D
71521 DL50 Receptacle		11-20-1164		
71527, 71528, 71530, 71531 D-Sub		11-20-1165	11-21-9391	
5360 QF50™		11-20-1168	11-31-2187	
5320 QF50		11-20-1169	11-31-2335	
70720, 70721 DL50			11-21-9746	
79058 SCSI+	0.63mm (.025") Ribbon Cable Feed-To, Feed-Through	62200-5500	62200-4600	E
70498 SCSI+				
EBBI 71660				

* If you already own a press, only tool kit is necessary

Insulation Displacement Technology Tooling

PB13 Pneumatic Terminator



Features

- For processing hand-placed connectors, discrete wire
- Automatic connector indexing after termination
- Pneumatically operated cycle timer ensures stroke completion
- Leaves operator free to work with both hands

Specifications

Size: Width—250mm (9.8")
Depth—150mm (5.9")
Height—215mm (8.5")
Weight: 11kg (24.3 lb) approx.
Pressure: 6 BAR (90psig)

Description	Module Order No.	Use with Molex Connector
Hand Placed Connectors	69012-0750	7675
Side Loader	69012-0600	7720
Hand-Placed Connectors	69012-0700	
	69012-0350	52051
	69012-0280	90153, 90154, 90175

Manual Telephone Plug Tooling



A



B



C



D



F



E

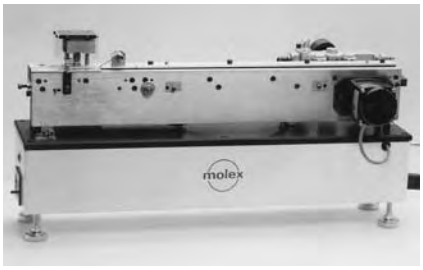
Description	Order No.	Figure
Adapter for 90075	11-21-9933	A
Adapter for 87031	11-31-7559	B

Connector	Size	Order No.	
		Complete Manual Press	Dies Only
		Figure C	Figure D
90075	4/4-6/6	11-20-1273	
	8/6-8/8	11-20-1274	69020-0140
		Figure E	Figure F
87031	4/4	11-20-1270	11-32-4767
	6/6	11-20-1271	11-32-4768
	6/2-6/4	11-20-1272	

Note: The above listed tools require loose piece telephone plugs

Insulation Displacement Technology Tooling Semi-Automatic Terminators

Semi-Automatic Mini-Cam for Discrete Wire



Features

- Can terminate feed-to, feed-thru or reverse feed-to*
- Quick and easy tooling change from feed-to to feed-thru
- Feed-to configuration has positive wire stop
- Adjustable wire length stop for daisy chain applications
- "CE" certified for Europe

Specifications

Size: Width—605mm (23.81")
Depth—138mm (5.43")
Height—307mm (12.12")
Weight: 21.0kg (46.3 lb)
Pneumatic: 5 to 6 BAR (80 to 90psi)
7L per minute (0.25 CFM)
Electrical: 110V, 60 Hz or 220V, 50 Hz
Connector to Connector Spacing: 38mm (1.5") for daisy chain
Rate: Up to 1200 terminations per hour dependent on operator speed and application

Description	Order No.	Use with Molex Connector
Mini-Cam IV Semi-Automatic Termination Machine for .156" KK	62300-0156	7674, 7675 and 40590
Mini-Cam IV Semi-Automatic Termination Machine for .100" KK	62300-0100	7720, 7795, 40555 and 41162
Mini-Cam IV Semi-Automatic Termination Machine for Mini-Fit IDT	62300-0200	71690, 71694

*Caution: For reverse feed-to configuration on either KK product families it is necessary for the terminated wires to protrude outside of the connector. If your application does not allow for this condition, do not use the reverse feed-to termination.

Semi-Automatic IDT Machine for Discrete Wire or Ribbon Cable 2.00mm and 2.50mm



Features

- "CE" Certified
- Assembles either discrete wire or cable
- Connector packaged in "Ammo-Pak" and linked together by terminal carrier strips
- Automatic connector loading
- Automatic carrier break off
- Programmable void capability
- Foot-pedal operated
- Tooling supplied for both ribbon cable and discrete wire (2 cable blades supplied for largest circuit size require alteration to your specific application circuit size, see machine manual for ordering information on specific circuit size tools)

Specifications

Size: Width—760mm (30")
Depth—480mm (19")
Height—480mm (19")
Weight: 70kg (150 lb)
Pneumatics: Pressure—5 BAR (80psig)
Consumption—28L per minute (1 CFM)
Electrical: Voltage—120V AC, 60 Hz or 220V AC, 50 Hz
Current—2A at 120V or 1A at 220V
Rate: Up to 1200 terminations per hour (discrete) and 350 assemblies per hour (cable), dependent on operator speed and wire length

Description	Order No.	Use with Molex Connector
Hawk Terminator for SPOX™—Discrete Wire or Ribbon Cable	62300-0700	42219, 42254
Hawk Terminator for "User Friendly"—Discrete Wire or Ribbon Cable	62300-0500	90650, 90652
Hawk Terminator for 2.00mm—Discrete Wire or Ribbon Cable	11-20-1293	30452

Insulation Displacement Technology Tooling Semi-Automatic Terminators

Semi-Automatic Ribbon Cable Terminator for PCB Connectors



Features

- Terminates prenotched cable to pre-assembled connectors
- Bench mounted and operator controlled
- Feeding of connectors from machine's magazine
- Pneumatically operated
- Feed-to or feed-through capabilities

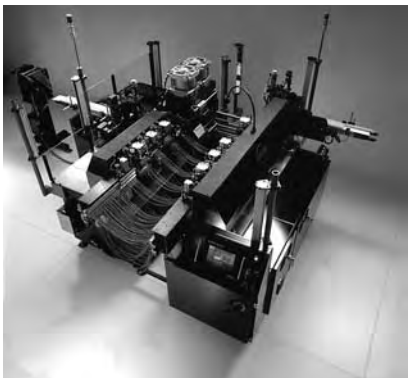
Specifications

Size: Width—203mm (8")
Depth—305mm (12")
Height—432mm (17")
Weight: 13.5kg (30 lb)
Pneumatics: Pressure—5 BAR (80psig)
Consumption—14L per minute (0.5 CFM)
Rate: Up to 550 assemblies per hour, dependent on operator speed and application

Description	Order No.	Use with Molex Connector
.100" Pitch Cable Terminator	11-20-0412	7720
.100" Pitch Cable Terminator with Backwalls	11-20-0771	7720, 40555
.100" Pitch Cable Terminator	11-20-1004	7720S
.100" Pitch Cable Terminator (Edge Card)	11-20-0411	7822
.156" Pitch Cable Terminator	11-20-0418	7674, 7675
.098" Pitch Cable Terminator	11-20-0498	8160
.098" Pitch Cable Terminator (Edge Card)	Contact Molex	
Terminator for 77955 Connector	11-20-0435	77955

Insulation Displacement Technology Tooling

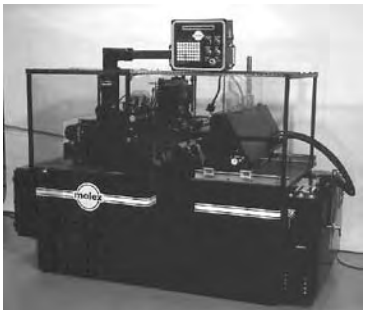
Special Machines 62900-0000



Molex can quote special machines upon request with optional features that parallel the Phoenix/Eagle Series. In general, these machines differ by the manner in which connector termination and wire handling are accomplished. Additionally, daisy chain and different connector orientations can be accomplished.

Insulation Displacement Technology Tooling Fully Automatic Harness Assembly Machines

Eagle™ Series 62600-0000



Contact Molex to Order

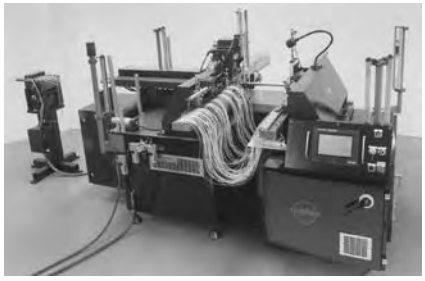
Features

- Fully-automatic mass terminating machines for high-volume applications (minimum estimated annual usage of 10 million terminations)
- Dereel systems for discrete wire or cable available
- Double end having single-ended harness capabilities without strip
- Full strip for discrete wire
- Strip and retain for cable
- Single-ended harness capability with strip (38mm/1.5" max.) (Harness length of 76mm/3" min. to 610mm/24" max.)
- Up to 64 terminations per cycle (dependent on circuit size)
- User friendly solid state controller
- Self-diagnostic with program storage
- Large variety of value-added options (maximum of 2 secondary operation stations)

Specifications

Size: Width—1800mm (71")
Depth—915mm (36")
Height—1500mm (59")
Weight: 1370kg (2800 lb)
Pneumatics: Pressure—5 BAR (80psig)
Consumption—142L per minute (5 CFM)
Electrical: Voltage—220V AC, 50 Hz or 240V AC, 60 Hz
Current—40.0A (dependent on wire feed option)
Rate: 300 cycles per hour average, dependent on harness length
The Eagle machine is defined in this series by having wire length capability up to 610mm (24") max. and up to 2 secondary operator stations.

Phoenix™ Series 62700-0000



Contact Molex to Order

Features

- Fully-automatic mass terminating machines for high-volume applications
- Dereel systems for discrete wire or cable availability
- Double end having single-ended harness capabilities without strip
- Single-ended harness capability with strip (38mm/1.5" max.)
- Full strip for discrete wire
- Strip and retain for cable
- Up to 64 terminations per cycle (dependent on circuit size)
- Discrete wire with equal wire length capability (Harness length of 76mm/3" min. to 3048mm/120" max.)
- Various connector packaging options
- User friendly solid state controller (touch screen)
- Self-diagnostic with program storage
- Large variety of value-added options

Specifications

Size: Width—2300mm (91")
Depth—1800mm (71")
Height—1500mm (59")
Weight: 1800kg (4000 lb)
Pneumatics: Pressure—5 BAR (80psig)
Consumption—142L per minute (5 CFM)
Electrical: Voltage—220V AC, 50 Hz or 240V AC, 60 Hz
Current—40.0A (dependent on wire feed option)
Rate: 300 cycles per hour average, dependent on harness length
The Phoenix machine is defined in this series by having wire length capability up to 3048mm (120") and/or more than 2 secondary operator stations.

Optional Features for Eagle and Phoenix Series

- Wire dereeler systems: Up to 32 barrel capacity and up to 32 reel capacity
- Missing wire detection
- Wire splice detection
- Full strip for discrete wire
- Variable wire length capability: For single-end Eagle series: 76mm (3") min. to 610mm (24") max. For double-end Eagle series: 152mm (6") min. to 610mm (24") max.
- Discrete wire with variable wire length capability:
  —For single-end Phoenix series: Harness length of 152mm (6") min. to 3048mm (120") max. and maximum wire length within harness equal to approximately 4 times minimum length
  —For double-end Phoenix series: Harness length of 152mm (6") min. to 3048mm (120") max.
- Single or multiple notching or slitting for ribbon cable applications

Housing load:
—Magazine style for bulk packaging
—Single detuber for extruded tube packaging
—Manual track for operator loading
—Welded film dereeler for mylar reel packaging
—Welded film unloader for mylar "Ammo Pak"
—Vibratory or centrifugal bowl feeding for continuous loading
—Tape dereeler for continuous tape packaging
Full strip and strip/retain for discrete wire and ribbon cable
Terminal insertion into housings (SL)
Continuity testing for double-ended assemblies

Product marking:
—Hot stamping
—Ink pad printing
—Ink jet printing
—Automatic labeling
Data storage for recall on floppy disk media through a personal computer

Technical Wire Information

Definitions

CMA — Circular Mil Area is a unit of area equal to that of a circle whose diameter is one Mil.

MIL — One mil equals .001 inches.

.001 inch = 1 mil
.030 inch = 30 mils
.125 inch = 125 mils

Changing Inches to Mils

1. Multiply inches by 1000
2. Move decimal point 3 places to right
3. Change terminology,
   i.e. .032 in. = 32 thousandths or 32 mils

Computation of CMA

Round Solid Conductor: Change diameter from inches to mils, then multiply the diameter in mils by itself.
CMA = D mils x D mils

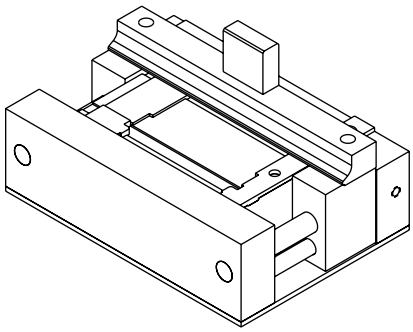
Stranded Conductor: Find CMA of a single strand and multiply the result by the total number of strands.
CMA = (D x D) x Number of Strands of one Strand

AWG-CMA Table	
Terminal Size	**CMA Range**
22-26	202-810
20-24	320-1,020
18-22	509-2,600
16-22	509-3,260
14-16	2,050-5,180
12-14	3,260-8,213
10-12	5,180-13,100
8	13,100-20,800

AWG-CMA Table	
Terminal Size	**CMA Range**
6	20,800-33,100
4	33,100-52,600
2	52,600-83,700
1/0	83,700-119,500
2/0	119,500-150,500
3/0	150,500-190,000
4/0	190,000-231,100

Application Tooling

FPC Insertion Tool



Features

- Easily adjustable from 6 to 30 circuits
- Tooling assures proper orientation of components for quality assembly
- Hand-operated tool which requires no air or electric

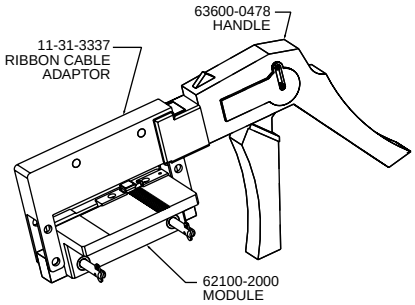
Specifications

Height: 50mm (2.00")
Weight: 1kg (2.2 lb)

Description	Order No.	Product No.
FPC Insertion Tool	62100-0800	54281

Application Tooling

Manual Hand Tool Handle for Milli-Grid 2.0



Features

- Terminates Milli-Grid 2.0mm dual row connectors
- Full-cycle ratchet
- Provides easy termination of flat ribbon cable
- Adjustable for circuit sizes from 10 to 50
- Adjustable cable stop
- Designed to produce feed-to or feed-through harnesses
- For low-volume, prototype and field repair

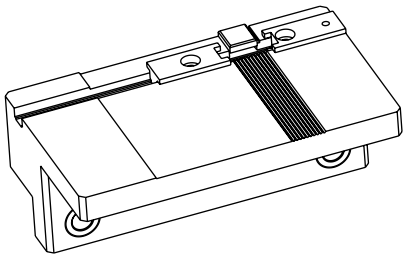
Description	Order No.	Used with Molex Connectors
Hand Tool Module	62100-2000	87568
Hand Tool Handle	63600-0478	
Ribbon Cable Power Adapter	11-31-3337	

If a complete tool is required, both of the parts above must be ordered.

Specifications

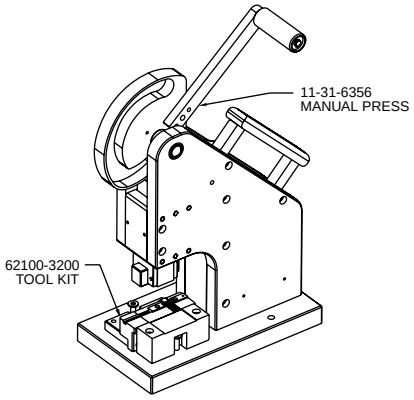
Rate: Approximately 150 terminations per hour, dependent on operator skill and application
Wire: Accepts 1mm pitch, flat cable

Manual Hand Tool Module for Milli-Grid 2.0



62100-2000 HAND TOOL MODULE

Manual Standard Press



Features

- Terminates Milli-Grid 2.0mm dual row connectors
- Full-cycle ratchet
- Provides easy termination of flat ribbon cable
- Adjustable for circuit sizes from 10 to 50
- Adjustable cable stop
- Designed to produce feed-to or feed-through harnesses
- For low-volume, prototype and field repair

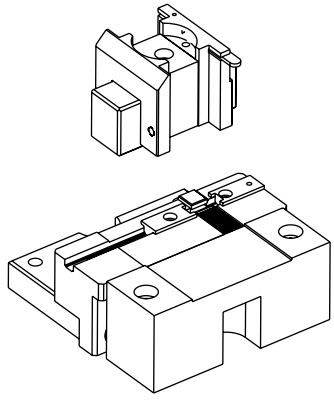
Description	Order No.	Used with Molex Connectors
Standard Manual Press	11-31-6356	87568
Tool Kit Only	62100-3200	

If a complete tool is required, both of the parts above must be ordered.

Specifications

Rate: Approximately 150 terminations per hour, dependent on operator skill and application
Wire: Accepts 1mm pitch, flat cable

Manual Hand Tool Module for Milli-Grid 2.0



Manual IDT Hand Tool for Mi II™



Description	Order No.	Product No.
Manual IDT Tool	57325-5000	52484, 52478, 52693
	57834-5000	54596

Features

- Manually terminates discrete wire into Mi II IDT terminals
- Primarily for prototype work
- Tool complete with change parts for 3 connector styles

Semi-Automatic Pneumatic Bench Top Machine for Mi II™



Description	Order No.	Product No.
Press	57222-7000	
Die Set	57226-7000	52691
	57225-7000	52484, 52478, 52693
Press with Die Set	57827-7100	54596

Features

- Pneumatic press coupled with die set for specific product designed for low- to medium-volume IDT terminations
- Nest holds up to 30 circuits allowing smaller circuit sizes to be run in multiples
- Best for ribbon cable and jacketed cable applications
- Die sets are field interchangeable

Specifications

Size: Width—390mm (15.3")
Depth—435mm (17.1")
Height—424mm (16.7")
Weight—60kg (132.2 lb)
Electrical: Voltage—110V AC, 50 or 60 Hz
Current—1A at 110V AC
Pneumatics: 4.4 BAR (71psi) at 10L per minute (.35 CFM)
Rate: 2 Circuit—Approximately 150 assemblies per hour depending on operator skill
15 Circuit—Approximately 200 assemblies per hour depending on operator skill

Semi-Automatic Electrical Bench-Top Air Press for Mi II™



Description	Order No.	Product No.
Electrical Bench-Top Air Press Terminator	57225-7100	52484

Features
- Can terminate up to 15 discrete wires
- Easily fits on small desktop for space savings
- Stable cut-and-terminate process

Specifications
Size: Width—320mm (12.60")
Depth—240mm (9.45")
Height—270mm (10.63")
Weight: Approximately 16kgf (35.3 lb)
Rate: Approximately 28 harnesses (15 circuits each end) per hour

Semi-Automatic Electrical Bench-Top Air Press for Mini Mi II™

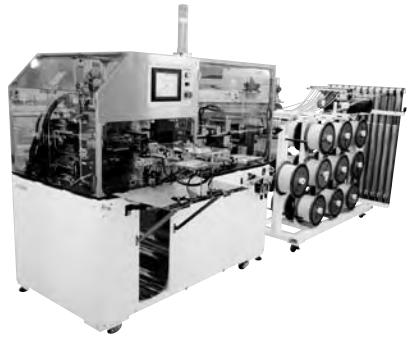


Description	Order No.	Product No.
Electrical Bench-Top Air Press Terminator	57827-7100	54596

Features
- Can terminate up to 20 discrete wires
- Easily fits on small desktop for space savings
- Stable cut-and-terminate process

Specifications
Size (Machine): Width—320mm (12.60")
Depth—240mm (9.45")
Height—270mm (10.63")
Weight: Approximately 18kgf (39.7 lb)
Rate: Approximately 20 wires per shot every 2 seconds

SA-XELOM Mini Mi II™ and Mi II Semi-Automatic IDT Harness Machine



Description	Order No.	Product No.
Semi-Automatic IDT Harness Machine	57894-7000	54596, 52484

Features
- Termination options: 1.25-1.25mm pitch; 1.25-2.00mm pitch; 2.00-1.25mm pitch; 2.00-2.00mm pitch
- Automatically measures discrete wire to specified lengths and terminates both ends of wire
- Can accommodate 170 to 3,000mm length harnesses
- Can terminate various multi-harness options

Specifications
Size (Machine): Width—4050mm (159.45")
Depth—1900mm (74.80")
Height—1600mm (63.00")
Weight: Approximately 960kgf (38.80 lb)
Rate: Approximately one 20-wire connector (1000mm wire) every 15 seconds

Application Tooling

Manual IDT Discrete Wire Hand Tool for Spox™ and User-Friendly 2.50mm Pitch Connectors

Features

- Full cycle ratchet to assure complete termination
- For prototype and repair
- Automatic indexing to next position after insertion of discrete wire



Pistol



Module

Description	Order No.	Use with Molex Connector
Pistol	63600-0478	
Module for 2.50mm SPOX	69008-0290	42219
Module for 2.50mm "User Friendly"	69008-0290	90650, 90652

Manual IDT Discrete Wire Standard Press for Spox™ and User-Friendly 2.50mm Pitch Connectors

Features

- Full-cycle ratchet to assure complete termination
- For low-volume requirements
- Manual index to next position after termination



Description	Order No.		Use with Molex Connector
	Press Assembly	Tooling Only	
Manual Press for 2.50mm SPOX	11-20-1278	11-39-0001	42219
Manual Press for 2.50mm "User-Friendly"	11-21-9963	11-21-9998	90650, 90652

Manual IDT Ribbon Cable Standard Press for Spox™ and User-Friendly 2.50mm Pitch Connectors

Features

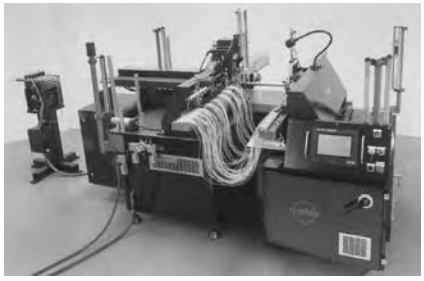
- Full-cycle ratchet to assure complete termination
- For low- to mid-volume needs
- Mass termination of prepared cable-to-connector



Description	Order No.		Use with Molex Connector
	Press Assembly	Tooling Only	
Manual Press for 2.50mm SPOX	11-21-9757	11-32-1956	42219
Manual Press for 2.50mm "User-Friendly"	11-20-1277	11-39-0002	90650, 90652

See Application Tooling section for additional information on these tools

Fully Automatic IDT Harness Assembly Machine for Spox™ and User-Friendly 2.50mm Pitch Connectors*



Features

- Dereel system for discrete wire or cable available
- Double- or single-ended harness capabilities without strip
- Single-ended harness capabilities with strip (38.00mm/1.15" max.)
- Full strip for discrete wire
- Strip and retain for cable
- Discrete wire with variable-wire length capability (Harness length of 152mm/6" min. to 2400mm/95" max.)
- Missing wire and splice detector
- Welded-film unloader for mylar ammo pack
- Carrier strip break off
- Continuity testing (double-ended assemblies)
- Hot stamp marking
- Reject station to segregate rejected assemblies
- "CE" certified

Specifications

Pneumatics: Pressure—5 BAR (80psig)
Consumption—142L per minute (5 CFM)
Electrical: Voltage—120V AC, 60 Hz or 220V AC, 50 Hz
Current—30A at 120V or 15A at 220V
Rate: 300 cycles per hour average, dependent on harness length, up to 60 terminations per cycle, dependent on circuit size

Description	Order No.	Use with Molex Connector
Fully Automatic Mass Terminator for Discrete Wire and Ribbon Cable	Contact Molex	42219, 90650, 90652

*Due to the special nature of these machines, contact Molex for information related to specific harness requirements

Application Tooling

Manual IDT Discrete Wire "T" Handle Insertion Hand Tool for PCB Connectors

Features

- For prototype and repair



Description	Order No.	Connector
"T" Tool for 2.50mm (.098") and 2.54mm (.100") pitch connectors	11-02-0016	7720, 7720S, 40555
"T" Tool for 3.96mm (.156"), 5.00mm (.197") and 5.08mm (.200") pitch connectors	11-02-0015	7674, 7675
Manual termination hand tool for mini-fit® IDT	11-02-0023	71690, 71694

Manual IDT Discrete Wire Hand Tool for PCB Connectors

Features

- For prototype and repair
- Auto indexing to next position after insertion of discrete wire



Description	Order No.	Connector
Pistol	63600-0478	
Module for 3.96mm (.156") pitch connectors, feed-to only	11-21-5196	7674, 7675
Module for 3.96mm (.156") pitch connectors, feed-to or feed-through	62100-0400	
Module for 2.50mm (.098") and 2.54mm (.100") pitch connectors, feed-to only	69008-0225	7720, 7720S, 40555

Semi-Automatic Discrete Wire Machine for SL™



Features

- Terminates C-Grid SL 70400 and 70475 product
- Connectors are fed from preloaded tubes; no manual handling
- Automatically inserts terminals into connector
- Automatic carrier removal system
- Simple setting for different circuit sizes
- Programmable setting for running voids
- Display prompting operator for wire color sequence
- Electronic controller for machine operation
- Foot pedal operated
- CE certified

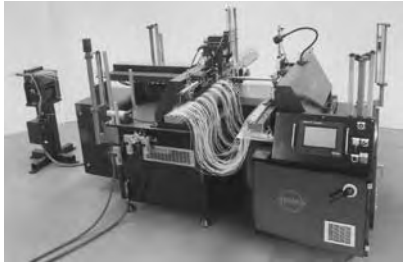
Specifications

Size: Width—965mm (38.00")
Depth—457mm (18.00")
Height—432mm (17.00")
Weight: 47kg (103 lb)
Pneumatics: Pressure—5 BAR (80psig)
Consumption—14L per minute (0.5 CFM)
Electrical: Voltage—120V, 60 Hz or 220V, 50 Hz
Current—2.0A at 120 or 1.0A at 220
Insulation Diameter: 0.80 to 1.35mm (.032 to .053")
Rate: Up to 1000 terminations per hour, dependent on operator speed and application

Description	Order No.	Use with Molex Connector
Discrete Wire Terminator (Tube Feed)	62300-3100	70400, 70475
Rebuilt US only*	11-20-1337	
Rebuilt CE approved*	62300-4900	

* Subject to availability

Fully-Automatic Discrete Wire Harness Assembly Machines for SL™



Features

- Terminates C-Grid SL 70400 and 70475 product
- Fully-automatic mass terminating machines for high-volume applications (minimum estimated annual usage of 10 million terminations)
- Double end having single-ended harness capabilities without strip
- Full strip for discrete wire
- Strip and retain for cable
- Single-ended harness capability with strip (38mm/1.5" max.); harness length of 76mm (3") min. to 610mm (24") max.
- Discrete wire with variable wire length capability; harness length of 152mm (6") min. to 2400mm (95") max.
- Up to 64 terminations per cycle, dependent on circuit size
- Terminal insertion into connector
- Carrier break off

Specifications

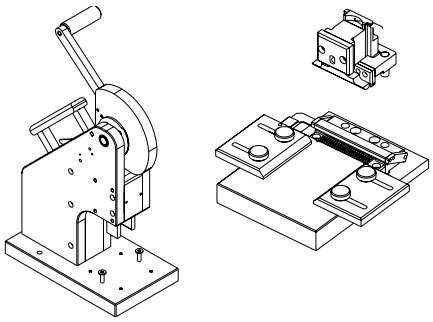
Pneumatics: Pressure—5 BAR (80psig)
Consumption—142L per minute (5 CFM)
Electrical: Voltage—220V AC, 50 Hz or 240V AC, 60 Hz
Current—40.0A (dependent on wire feed options)
Rate: 300 cycles per hour average, dependent on harness length

Description	Order No.	Use with Molex Connector
Fully-Automatic Mass Terminator for Discrete Wire and Ribbon Cable	Contact Molex	70400, 70475

Note: Due to the special nature of these machines, contact Molex for information related to specific harness requirements

Application Tooling

Manual Ribbon Cable Standard Press and Tool Kit for SL™



Features

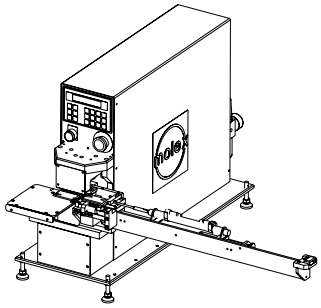
- Adjustable for 2 to 25 circuits for all connector styles
- Tool kit installs in all 11-31-6356 Molex standard presses
- Full-cycle ratchet assures quality termination
- Adjustable cable guides and stop for repeatable cable/connector alignment
- Feature to assure proper connector position

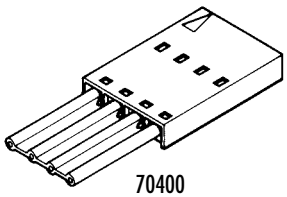
Specifications

Weight (With Press): 24.1kg (53 lb)
Size (With Press): Height—498mm (19.6")
Width—269mm (10.6")
Depth—152.4mm (6")
Weight (Tooling Only): 2.5kg (5.5 lb)
Size (Tooling Only): Height—51mm (2.00")
Width—127mm (5.00")
Depth—178mm (7.00")
Rate: Up to 180 terminations per hour, dependent on operator skill

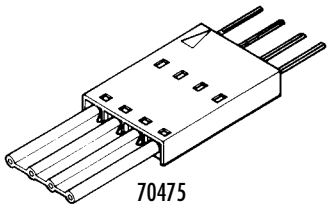
Description	Order No.
Tool Kit for Molex Manual Standard Press	62201-6600
Molex Manual Standard Press	11-31-6356

Semi-Automatic Ribbon Cable Machine





70400



70475

Features

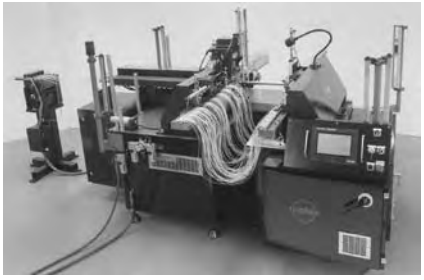
- Can be used with flat flexible cable and pre-notched ribbon cable; this allows for production flexibility and lowers overall cost
- Automatic loading of connectors from tube packaging, which will reduce operator handling and increase production output
- Operator interface keypad for data entry, such as setting batch size or displaying an operator fault message, to help ensure proper operation
- Automatic carrier strip breakoff available, which can be factory ordered or field installed and will reduce operator's handling of product
- Meets OSHA safety requirements and is totally enclosed for operator safety
- Available in 220 volts and has been CE certified for use in Europe

Specifications

Size: Width—494mm (19.50") (without feet)
Depth—945mm (37.25")
Height—914mm (36.00")
Weight: 48.1kg (103 lb) (unpacked)
Pneumatics: Pressure—5 BAR (80psig)
Consumption—14L per minute (0.5 CFM)
Electrical: Voltage—110V, 50 Hz or 220V, 60 Hz
Current—1.0A (foot switch activated)
Rate: 750 connectors per hour, depending on operator's skill. Up to 950 connectors per hour with special order magazine tube loader. Consult factory for more information.

Description	Order No.	Header Series	Voltage/Hz
Ribbon Cable Terminator	62300-3000	70400, 70475	110/220V AC 50/60 Hz
Ribbon Cable Terminator with Breakoff	62300-5300		

Fully-Automatic Ribbon Cable Harness Assembly Machines for SL™



Features

- Terminates C-Grid SL 70400 and 70475 product
- Fully-automatic mass terminating machines for high-volume applications (minimum estimated annual usage of 10 million terminations)
- Double end having single-ended harness capabilities without strip
- Full strip for discrete wire
- Strip and retain for cable
- Single-ended harness capability with strip 38mm (1.50") max., harness length of 76mm (3.00") min. to 610mm (24.00") max.
- Discrete wire with variable wire length capability, harness length of 152mm (6.00") min. to 2400mm (95.00") max.
- Up to 64 terminations per cycle, dependent on circuit size
- Terminal insertion into connector
- Carrier break off

Specifications

Pneumatics: Pressure—5 BAR (80psig)
Consumption—142L per minute (5 CFM)
Electrical: Voltage—220V AC, 50 Hz or 240V AC, 60 Hz
Current—40.0A (dependent on wire feed options)
Rate: 300 cycles per hour average, dependent on harness length

Description	Order No.	Use with Molex Connector
Fully-Automatic Mass Terminator for Discrete Wire and Ribbon Cable	Contact Molex	70400, 70475

Note: Due to the special nature of these machines, contact Molex for information related to specific harness requirements

Manual Hand Header Cutting Tool for SL™

Features

- Manually operated
- Interchangeable nests included for various header types



Description	Order No.	Header Series
Tool Assembly	69008-0350	8624, 42375, 42377, 70203, 70216, 70260, 70268, 70287, 70289, 70345, 70524
Replacement Blade—Upper	69008-0078	

Manual Bench Top Header Cutting Tool for SL™

Features

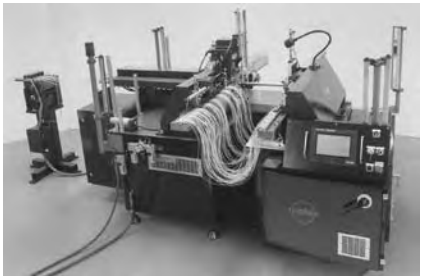
- Bench tool for 2.54mm (.100") pitch header cutting to length
- Incorporates a graduated slideway and stop for presetting of required header length; maximum length of header that can be cut is 40 position



Description	Order No.	Header Series
Tool Assembly	11-20-1230	8624, 42375, 42377, 70203, 70216, 70260, 70268, 70287, 70289, 70345, 70524, 79168, 71308
Replacement Blade—Upper	11-32-4306	
Replacement Blade—Lower	11-32-4307	

Application Tooling

Fully Automatic Harness Assembly Machine for KK Series IDT Connectors



Features

- Dereel system for discrete wire or cable available
- Double- or single-ended harness capabilities without strip
- Single-ended harness capabilities with strip; 38mm (1.150")
- Full strip for discrete wire
- Strip and retain for cable
- Up to 56 terminations per cycle (dependent on circuit size)
- Discrete wire with variable length capability; harness length of 152mm (6") min. to 2400mm (95") max.
- Missing wire and splice detector
- Magazine feed for connector loading
- Continuity testing (double-ended assemblies)
- Hot stamp marking
- Reject station to segregate rejected assemblies
- "CE" certified

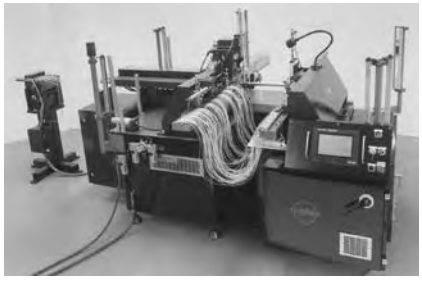
Specifications

Pneumatic: Pressure—5 BAR (80psig)
Consumption—142L per minute (5 CFM)
Electrical: Voltage—120V, 60 Hz or 220V, 50 Hz
Current—30A at 120V or 15A at 220V
Rate: 300 cycles per hour average, dependent on harness length

Description	Order No.	Connector
Fully Automatic Mass Terminator for Discrete Wire and Ribbon Cable	Contact Molex	KK® Series IDT

*Due to the special nature of these machines, contact Molex for information related to specific harness requirements

Fully Automatic Harness Assembly Machine for KK Series IDT Connectors



Features

- Dereel system for discrete wire or cable available
- Double- or single-ended harness capabilities without strip
- Single ended harness capabilities with strip; 38mm (1.150")
- Full strip for discrete wire
- Strip and retain for cable
- Up to 56 terminations per cycle (dependent on circuit size)
- Discrete wire with variable length capability; harness length of 152mm (6") min. to 2400mm (95") max.
- Missing wire and splice detector
- Magazine feed for connector loading
- Continuity testing (double-ended assemblies)
- Hot stamp marking
- Reject station to segregate rejected assemblies
- "CE" certified

Specifications

Pneumatic: Pressure—5 BAR (80psig)
Consumption—142L per minute (5 CFM)
Electrical: Voltage—120V, 60 Hz or 220V, 50 Hz
Current—30A at 120V or 15A at 220V
Rate: 300 cycles per hour average, dependent on harness length

Description	Order No.	Connector
Fully Automatic Mass Terminator for Discrete Wire and Ribbon Cable	Contact Molex	KK® Series IDT

Due to the special nature of these machines, contact Molex for information related to specific harness requirements

Manual .156" Pitch Cutter for Breakaway Headers



Features

- Manually operated
- Tool indexes and cuts parts to variable lengths with simple set-up adjustment

Description	Order No.	Header Series
Tool Assembly	11-20-0901	41661, 41662, 41671, 41672, 41681, 41682, 41701, 41711, 41721
Replacement Blade	11-31-7504	

Manual Hand Cutting Tool for Breakaway Headers



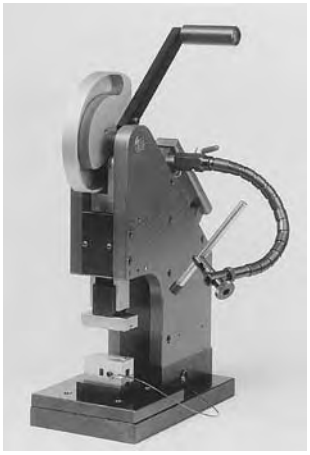
Features

- Hand tool for 2.54mm (.100") and 3.96mm (.156") pitch header cutting to length
- Incorporates a graduated slideway and stop for presetting of required header length. Maximum length of header which can be cut is 40 position.

Description	Order No.	Header Series
Tool Assembly	69008-0350	8624, 70203, 70343, 70344, 42225, 42226, 42227, 42228, 42375, 42376, 42377, 42624, 41661, 41662, 41671, 41672, 41681, 41682
Replacement Blade—Upper	69008-0078	

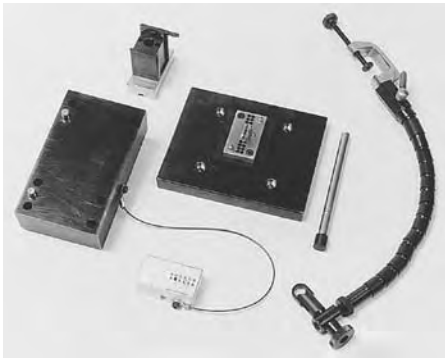
Application Tooling

43879
Manual Standard Press and Insertion Tool for Mini-Fit CPI™



Manual Standard Press and Tool Kit

Features
- Accommodates 4 to 24 circuits
- Tool rotates to allow four separate connector orientations
- Laser locator included for accurate board positioning
- Accommodates left- and right-handed operators
- Full-cycle ratchet insures proper seating
- Fits in Molex Standard Manual Press (11-31-6356)
- Adjustable for PCB thickness of 2.3mm (.090") to 6.3mm (.250")



Tool Kit Only

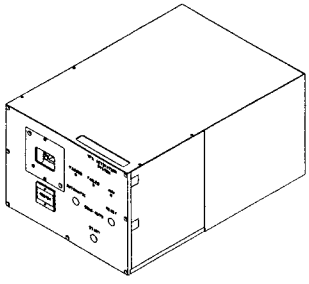
Specifications
Weight: Including press 24.1kg (53 lb)
Size: Including press
Height—498mm (19.6")
Length—269mm (10.6")
Depth—152.4mm (6.0")
Rate: 120 connectors per hour dependent on operator skill

Description	Order No.
Manual Standard Press and Tool Kit	62200-6900
Tool Kit Only	62200-5800
Flatrock Press Tool (Not Shown)*	62200-9400

*For backplane applications in industry standard presses

Terminal Activation Unit

For Sabre Terminals 43375 and 43178



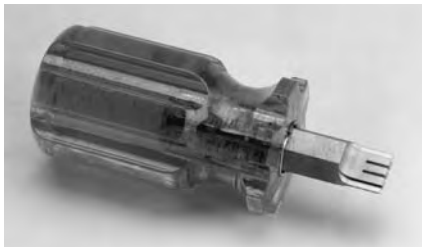
Features
- Automatic cycle when housing is present
- 100% terminal push out test
- Available in bench top design or TSK test board integratable modules
- Dip switch control panel allows users to customize the machine to select voided circuits
- Each circuit size requires one unit

Specifications
Size (Bench/Board):
Width—317mm (12.5")/100mm (4.0")
Depth—556mm (22.3")/270mm (10.7")
Height—254mm (10.0")/100mm (4.0")
Weight (Bench/Board): 16.8kg (37 lb)/7.9kg (17.5 lb)
Pneumatics: 5.9 BAR (85psi) at 2.8L per minute (.100 CFM)
Electric: 110V, 50/60 Hz, 1A
Rate: Up to 360 terminal activations per hour, dependent on operator skill

Contact Molex for ordering information
Full harness testing activation equipment available through:
TSK Innovations Co.
1057 Doniphan Park Circle
Suite H
El Paso, TX 79922
(915) 581-9718

Application Tooling

Manual Termination and Extraction Hand Tool for Mini-Fit IDT™



Features
- For prototype and repairs

Description	Order No.	Connector
Manual Termination Hand Tool for Mini-Fit IDT	11-02-0023	71690, 71694
Extraction Tool*	11-03-0044	

*Not shown

Manual Standard Press for Mass Termination of Discrete Wire for Mini-Fit IDT™



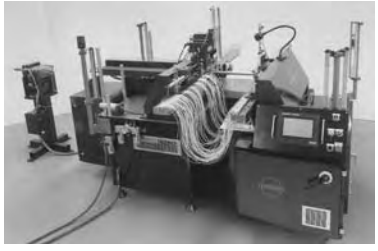
Features
- Mass termination for discrete wires
- Feed-to or feed-through capability
- Full-cycle ratchet to assure complete termination

Specifications
Size: Width—270mm (10.5")
Depth—150mm (6.0")
Height—530mm (21.0")
Weight: 18kg (40 lb)
Rate: Up to 700 terminations per hour, dependent on operator speed and application

Description	Order No.	Connector
Manual Standard Press	11-31-6356	
Tool Kit for Mini-Fit IDT	11-39-0277	71690, 71694
Complete Press Assembly	11-20-1328	

Application Tooling

62700-XXXX
Fully-Automatic Termination Machine for Mini-Fit IDT*



Features
- Dereel or debarrel systems for discrete wire available
- Double- or single-ended harness capabilities without strip
- Single-ended harness capabilities with full or partial strip
- Up to 48 terminations per cycle, dependent on circuit size (multi-up on smaller circuit sizes)
- Discrete wire with variable length capability
- Missing wire and splice detector
- Vibratory bowl feed for connector loading
- Continuity testing (double-ended assemblies)
- Ink Jet programmable marking
- Reject station to segregate assemblies
- "CE" certified for Europe

Specifications
Pneumatics: Pressure—5 BAR (80psig)
Consumption—142L per minute (5 CFM)
Electrical: 120V, 60 Hz or 220V, 50 Hz
Rate: 300 cycles per hour average, dependent on harness length

Description	Order No.	Connector
Fully-Automatic Mass Terminator for Discrete Wire	Contact Molex	71690, 71694

*Due to the special nature of these machines, contact Molex for information related to specific harness requirements

Manual Standard Press Tool Kit for FFC and FPC Connectors



Description	Order No.
Tool Kit with Molex Manual Standard Press	62200-7800
Tool Kit for Molex Manual Standard Press	62200-7400
Molex Manual Standard Press	11-31-6356

Features

- Adjustable for 2 to 16 circuits for all connector styles
- Tool kit installs in all 11-31-6356 Molex standard presses
- Full-cycle ratchet assures quality termination
- Adjustable cable guides and stop for repeatable cable/connector alignment
- Feature to assure proper connector position
- Feature to assist with insertion of terminals and carrier strip break-off to complete assembly

Specifications

Weight (With Press): 24.1kg (53 lb)
Size (With Press): Height—498mm (19.6")
Width—269mm (10.6")
Depth—152.4mm (6")
Weight (Tooling Only): 1.8kg (4 lb)
Size (Tooling Only): Height—45mm (1.77")
Width—114mm (4.48")
Depth—237mm (9.33")
Rate: Up to 180 terminations per hour, dependent on operator skill

Semi-Automatic TM42™ Press for FFC and FPC Connectors



Description	Order No.
Tool Kit with TM42 Press	62202-0800
Tool Kit for TM42 Press	62201-8700
TM42 Press	69002-5001

*Not adaptable to Model TM40™ presses

Features

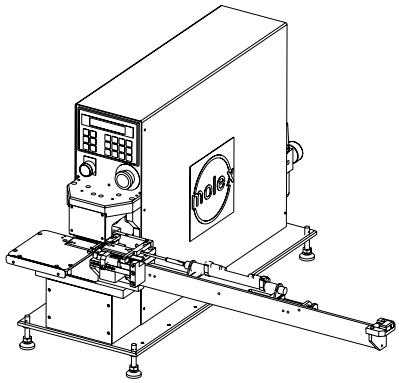
- Adjustable for 2 to 20 circuits for all connector styles
- Tool kit installs in all TM42 presses*
- Press may be easily converted back to standard crimp mode
- Adjustable cable guides and stop for repeatable cable/connector alignment
- Feature to assure proper connector position
- Feature to assist with insertion of terminals and carrier strip break-off to complete assembly
- Adjustable cable guides and stop for repeatable cable/connector alignment
- New guard included
- Powered press reduces operator fatigue

Specifications

Weight (With Press): 100kg (220 lb)
Size (With Press): Height—1150mm (45")
Width—540mm (21.2")
Depth—330mm (13")
Weight (Tooling Only): 1.8kg (4 lb)
Size (Tooling Only): Height—45mm (1.77")
Width—114mm (4.48")
Depth—237mm (9.33")
Rate: Up to 240 terminations per hour, dependent on operator skill

Application Tooling

Flat Flexible Cable Machine



Features

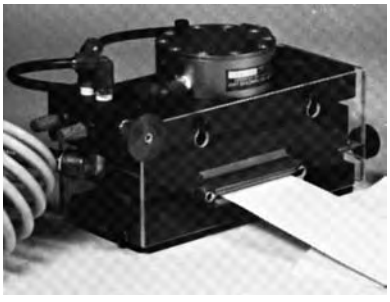
- Can be used with flat flexible cable and pre-notched ribbon cable, allowing for production flexibility and lowering overall cost
- Automatic loading of connectors from tube packaging, reducing operator handling and increasing production output
- Operator interface keypad for data entry, such as setting batch size or displaying an operator fault message, to help ensure proper operation
- Automatic carrier strip breakoff available, which can be factory ordered or field installed and will reduce operator's handling of product
- Meets OSHA safety requirements and is totally enclosed for operator safety
- Available in 220V and has been CE certified for use in Europe

Specifications

Voltage: 110/220 VAC, 50/60 Hz, 1.0A
Size: Width—945mm (37.25")
Depth—914mm (36")
Height—494mm (19.50") (without feet)
Weight: 48.10kg (103 lb) (unpacked)
Pneumatics: 5 BAR (80psig) at 14L per minute (0.5 CFM)
Rate: 750 connectors per hour, dependent on operator skill. Up to 950 connectors per hour with special order magazine tube loader. Consult factory for more information.

Description	Order No.	For Use With	Voltage/Hz
FFC Terminator	62300-2900	70430, 70431, 40556	110/220V AC 50/60 Hz
FFC Terminator with Breakoff	62300-5200		
FFC Tooling required for changeover from ribbon cable	62300-5100		

Air-Operated Punch For 4850



Features

- Punches 3 slots at each cycle
- Adjustable punch locations
- Adjustable edge guide
- Processes FFC/FPC cable or switch tails

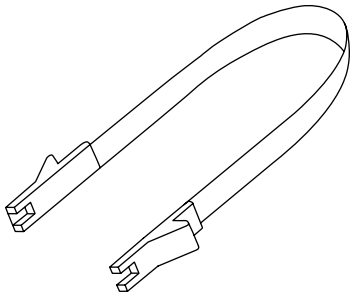
Specifications

Size: Width—203mm (8")
Depth—102mm (4")
Height—152mm (6")
Weight: 6.75kg (15 lb)
Pneumatics: 5 BAR (80psig) at 5.6L per minute (0.2 CFM)
Rate: Up to 650 cables per hour, dependent on operator skill

Description	Order No.
Multiple Hole Punch Bench Tool	11-10-1044

Application Tooling

Manual Extraction Tool for Picoflex™



This extraction tool is used to unmate the Picoflex connector 90327 from its header

Features

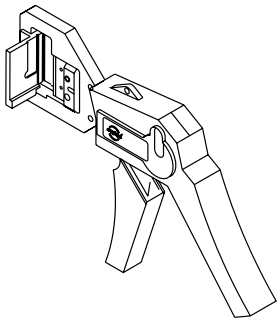
- Steel and plastic construction with moulded heads
- Long life spring steel handle
- Designed for "in the field" use, will help prevent damage to termination area and to connectors
- Suitable for all circuit sizes 4 to 26

Specifications

Size: (open) 105 by 110 by 12mm
Weight: 0.05kg approximate

Description	Order No.	Used with Molex Connector
Extraction Tool for 4 to 26 circuits	69008-1070	90327

Manual Handtool for Picoflex™



Features

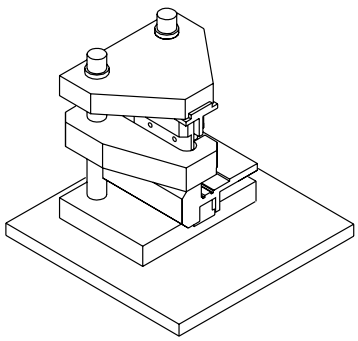
- Terminates Molex connectors 90327 and 90584, 4 to 26 circuits
- Designed for prototype: small batch and field repair applications
- Daisy chain and jumper harnesses can be made on this handtool with a small amount of adjustment
- Parallel Action Handtool with cable guide

Specifications

Size: 260 by 150 by 50mm
Weight: 0.75kg
Working Services: None
Engineering Number: 69008-1080

Description	Order No.	Used with Molex Connector
Picoflex Hand Tool for 4 to 26 circuits	69008-1090	90327, 90584

Manual Press Tool Kit for Picoflex™



Allows manual termination of pre-cut ribbon cable in an Arbor press

Features

- Fully-manual operation—requires no electrical or air supply
- Hand loading of connector and cable
- Cable guide
- Fits into Arbor press number 69020-0660
- Optional connector clamp 69020-1935
- Feed-to and feed-through application
- Suitable for all circuit sizes 4 to 26
- Terminates 90327 and 90584 series

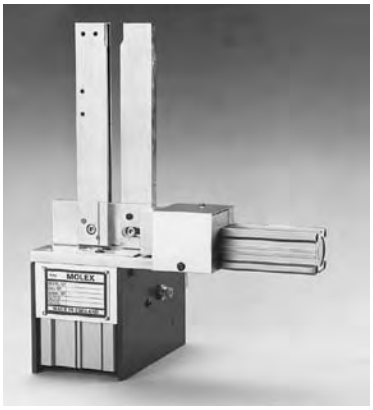
Specifications

Weight: 1kg
Dimensions: 15.5 by 110 by 90mm
Working Services: None
Engineering Number: 69020-1902

Description	Order No.	Used with Molex Connector
Tool Kit 4 to 26 circuits	69020-1902	90327, 90584
Manual Press for Tool Kit	69020-0660	
Optional Connector Clamp	69020-1935	

Application Tooling

Semi-Automatic PB14 Pneumatic Machine for Picoflex™



Features

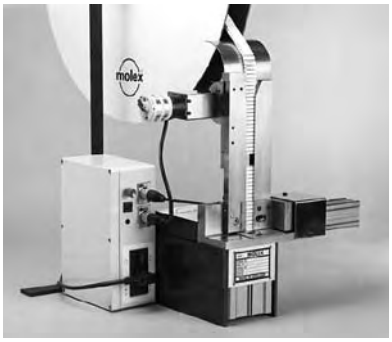
- For Picoflex 90327 connector (4 to 26 circuits)
- Fully pneumatic
- Cable triggers termination
- Production rate: 520 per hour
- Magazine feed
- Cable guidance
- Quick adjustment for different circuit sizes

Specifications

Weight: 12kg (26.45 lb)
Pneumatics: Pressure—6 BAR
Size: Width—210mm (8.26")
Depth—30mm (1.18")
Length—330mm (12.99")

Description	Order No.	Connector
PB14 Terminator for 4 to 26 circuits	69127-1001	90327

Semi-Automatic PB14T Tape Feed Machine for Picoflex™



Features

- Automatic tape feed which increases the production capabilities of the PB14 terminator
- Cable entry triggers termination
- Quick adjustment between circuit sizes
- Sensor automatically keeps magazine track full, allowing the operator to concentrate on production

Specifications

Weight: 25kg (55.12 lb)
Pneumatics: Pressure—6 BAR
Size: Width—280mm (11.00")
Depth—330mm (12.99")
Height—500mm (19.69")
Electrical: 220V—50 Hz
120V—60 Hz
Rate: Up to 2100 connectors per hour, dependent on operator speed and cable length

Description	Order No.	Connector
PB14 Terminator (220V) for 4 to 26 circuits	69127-1004	90327
PB14 Terminator (120V) for 4 to 26 circuits	69127-1024	

Semi-Automatic PB16 Tube Feed Pneumatic Machine for Picoflex™



Description	Order No.	Connector
PB16 Terminator	69127-1010	90584

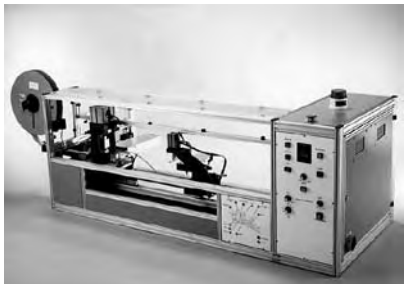
Features

- For Picoflex 90584
- Fully pneumatic
- Automatic connector reloading
- Tube feed with connector orientation
- Timer to ensure complete termination
- Cable entry triggers termination

Specifications

Weight: 25kg (55.12 lb)
Pneumatics: Pressure—6 BAR (90psig)
Size: Width—125mm (4.92")
Depth—175mm (6.89")
Length—700mm (27.56")

Automatic Desktop (PDT) Machine for Picoflex™



Description	Order No.	Connector
Picoflex Desktop Machine	Contact Molex	90327, 90584

Features

- Medium volume, with fully-automatic means of termination
- Pneumatically actuated
- Continuity testing built in
- Wire straightener
- PLC control
- Harness collection tray

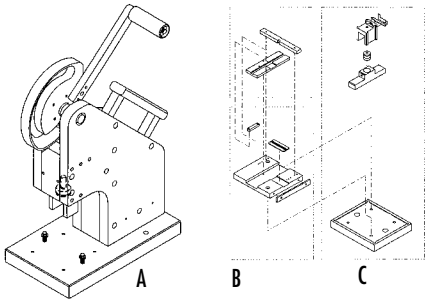
Specifications

Weight: 140kg (308 lb)
Electrical: 240V, 50 Hz single phase
Pneumatics: Pressure—6 BAR (90psig)
Consumption—6L per minute (0.22 CFM)
Rate: Up to 360 harnesses per hour, dependent on operator speed and application

Manual High Force Standard Press and Interchangeable Tool Kits for QF-50™ Ribbon Cable

Features
- Modular interchangeable tooling
- Quick tooling changeovers
- Ratchet terminator assures completion of full cycle
- Lightweight and portable

Specifications
Size: Width—152mm (6")
Depth—533mm (10.5")
Height—267mm (21")
Weight: 23kg (50 lb)
Max. Force: 13.3kw (3000 lb)
Shut Height 42.00mm (1.650")
Stroke Length: 43.00mm (1.690")



Basic Press and Tooling Order No.	Press Tool Kits Order No.	Tool Change Kits Order No.	Terminates Connector
11-20-1168	11-21-9652	11-31-2187	5360 QF 50™
11-20-1169	11-21-9653	11-31-2335	5320 QF 50

Description	Order No.	Reference
Basic Manual Press	11-31-6356	A
Ribbon Cable Tooling Adapter	11-20-0947	B
Basic Press with Tooling Adapter	11-20-1170	A, B
Universal Adapter Plate	11-31-2176	C

Semi-Automatic PB15 Pneumatic Machine for QF-50 Ribbon Cable

Features
- Automatic connector reloading
- Magazine feed with connector orientation
- Timer to ensure complete termination
- Cable guide
- Quick adjustment between circuit sizes
- Foot pedal operation
- Automatic tape feed—optional

Specifications
Weight: 28kg
Pneumatics: Pressure—6 BAR (90psig)
Consumption—14L per minute (0.5 CFM)



Description	Order No.	Connector
PB15 Magazine	69127-1050	90635, 40312
PB15 Tape	69127-1100	

Modular Euro Arbor Press for Ribbon Cable Connectors



Features

- Lightweight, portable, reliable assembly
- Cable shearing capabilities
- Feed-to or feed-through

Specifications

Size: Width—153mm (6")
Depth—305mm (12")
Height—457mm (18")
Weight: 7.8kg (17.2 lb)
Rate: Up to 110 assemblies per hour, dependent on operator speed and cable length

Description	Order No.	Type	For Use With
Manual Press	69020-0660	Manual Press Modular System	All equipment listed below
Cable Shear Module	69020-0900	Cable Preparation	To shear ribbon cable of all sizes
Arbor Press Fixture	69020-0680	Termination Tooling	Connectors 5320, 90635
	69020-0710		Connectors 5350, 5370 and 5380 QF 50
	69020-1902		Connectors 90327, 90584
			Custom 91577

Application Tooling VHDM®

Ordering Instructions

In order to insert a typical row of connectors (excluding the daughtercard modules), it is necessary to select the individual insertion tools and then pick the appropriate tooling holder (See also examples below):

1. Determine the combination of signal modules and power modules to be inserted.
2. Select the proper insertion modules from the tooling list and descriptions that appear before the repair tools in this section. Remember to include the appropriate alignment block(s).
3. In the description of each tool is the tool length; write down the length of each tool selected (IF YOU REQUIRE 4 OF A PARTICULAR TOOL, MAKE SURE YOU WRITE DOWN ITS LENGTH 4 TIMES).
4. Total up these lengths.
5. Using the length just calculated, select the next largest tooling holder. The tooling holder can be shorter than the total tooling but not more than 0.50mm (.020") per side.
6. All of the tools selected above must be ordered separately.

Ordering Daughtercard Tooling

1. Do steps 1, 3 and 4 above.
2. Using the total length just calculated, select the next longest daughtercard insertion tool.

Examples

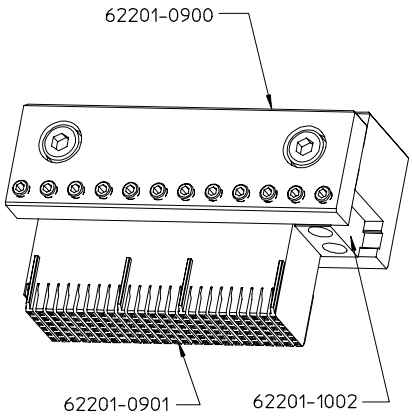


Figure A

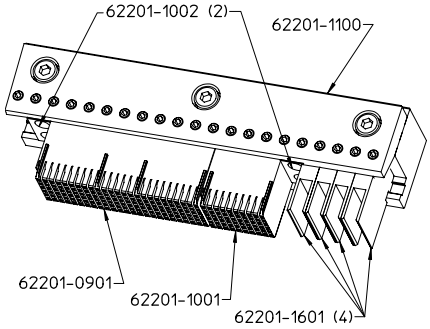


Figure B

The following are some examples showing how to select the proper tooling:

Example 1

To be inserted: 1 No. 74059-2501 6 by 25 backplane signal module (with locating pins on one end).

1. Look at the tooling list that appears before the repair tools in this section and find the required tool. In this case it would be 62201-0901.
2. Since the connector has locating pins on one end, an alignment block will also be required. From the list, pick the 6 row alignment block, Order No. 62201-1002.
3. From the descriptions of these tools get the lengths; 62201-0901 = 50.00mm (1.968") and 62201-1002 = 7.00mm (.275")
4. Add these two values for a total of 57.00mm (2.244")
5. From the 6 Row Tooling Holder description pick the 65.00mm (2.559") long holder, Order No. 62201-0900.
6. The order to Molex should thus include the following:

Quantity	Order No.	Description
1	62201-0901	6 by 25 Header Insertion Module
	62201-1002	6 Row Alignment Block
	62201-0900	6 Row 65.00mm (2.559") Long Tooling Holder

Figure A shows the assembled unit.

Example 2

The following combination is to be inserted:

1	74058-2501	6 by 25 Signal Module, locating pins on left
1	74059-1001	6 by 10 Signal Module, locating pins on right
4	74029-6000	6 Row Power Modules.

1. From the tooling list pick two 62201-1002, one for each signal module since both have locating pins.
2. Next pick a 62201-0901 for the first module.
3. A 62201-1001 will be needed for the second module.
4. Now pick four (4) 62201-1601 power module tools.
5. Get the length information from the descriptions.
6. Total up the lengths:

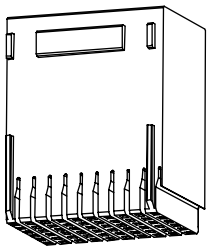
62201-1002	7.00mm (.276")	Total = 105.60mm (4.157")
62201-0901	50.00mm (1.968")	
62201-1001	20.00mm (.787")	
62201-1002	7.00mm (.276")	
62201-1601	5.40mm (.213")	
62201-1601	5.40mm (.213")	
62201-1601	5.40mm (.213")	
62201-1601	5.40mm (.213")	

7. Using this total length, pick the 62201-1100 Tooling Holder, as this is 115.00mm (4.528") long.
8. Therefore the purchase order should contain the following:

Quantity	Order No.	Description
2	62201-1002	6 Row Alignment Block
1	62201-0901	6 by 25 Header Insertion Module
	62201-1001	6 by 10 Header Insertion Module
4	62201-1601	6 Row Power Module Inserter
1	62201-1100	6 Row, 115.00mm (4.528") Long Tooling Holder

Figure B shows the assembled insertion tooling.

6 by 10 Header Insertion Module



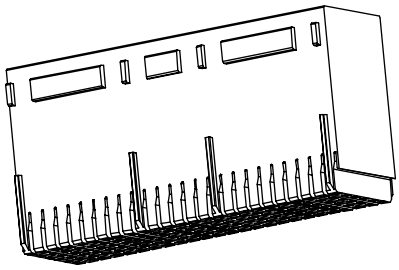
Features
- This tool is for inserting the 74057, 74058 and 74059 series, 6 row, 10 terminals to a row, connector into a printed circuit board

Specifications
Length: 20.00mm (.787")

Order No.	Description
62202-0207	6 by 10 Header Insertion module, low profile
62202-0216	HSD only 6 by 10 male press-in module

Note: This tool module is to be used with a suitable tooling holder.
See ordering instructions.

6 by 25 Header Insertion Module



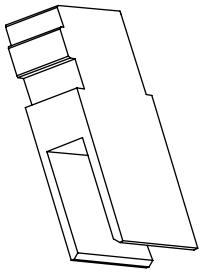
Features
- This tool is for inserting the 74057, 74058 and 74059 series, 6 row, 25 terminals to a row, connector into a printed circuit board

Specifications
Length: 50.00mm (1.970")

Order No.	Description
62202-0208	6 by 25 Header Insertion module
62202-0217	HSD only 6 by 25 male press in module

Note: This tool module is to be used with a suitable tooling holder.
See ordering instructions.

6 Row Power Module Inserter



Features
- This module is used for inserting the 74029-6XXX series 6 row power modules into a printed circuit board

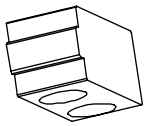
Specifications
Length: 5.40mm (.213")

Order No.	Description
62202-0211	6 and 8 Row Power Module Inserter

Note: This tool module is to be used with a suitable tooling holder.
See ordering instructions.

Note: VHDM is a registered trademark of Amphenol Corporation

6 Row Alignment Block

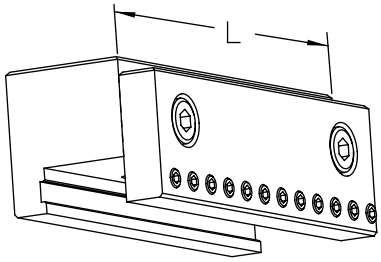


Features
- This module is used together with a 6 row module above for inserting the 74058 and 74059 series 6 row connectors with locating pins, into a printed circuit board

Specifications
Length: 7.00mm (.276")

Order No.	Description
62202-0212	Universal Alignment Block

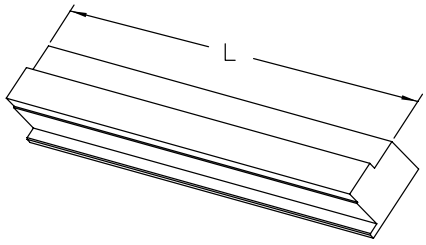
6 Row Tooling for Header Insertion Modules



Features
- These holders are used to hold the various insertion modules required for a particular application. See below for more detail.

Order No.	Description	Dimension (L)
62201-9502	6 Row Module Holder	72.00
62201-9503		156.00

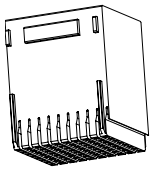
6 Row Daughtercard Press-In Tool



Features
- This tool is used to press in 74030-XXXX daughtercard assemblies (composed of 74031 wafers, 74037 guidance and 74026 power modules) to a printed circuit board

Order No.	Description	Dimension (L)
62202-0213	5 and 6 Row Daughtercard Press Tool	100.00

8 by 10 Header Insertion Module



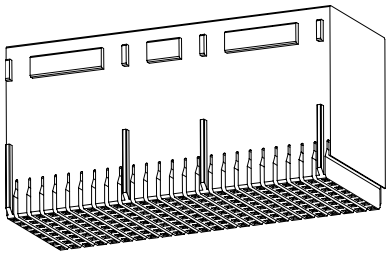
Order No.	Description
62202-0209	8 by 10 Header low-profile insertion module

Note: This tool module is to be used with a suitable tooling holder.
See ordering instructions.

Features
- This tool is for inserting the 74060, 74061 and 74062 series, 8 row, 10 terminals to a row, connector into a printed circuit board

Specifications
Length: 20.00mm (.787")

8 by 25 Header Insertion Module



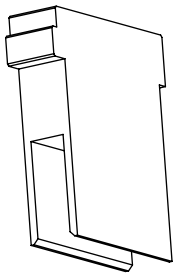
Order No.	Description
62202-0210	8 by 25 Header low-profile insertion module

Note: This tool module is to be used with a suitable tooling holder.
See ordering instructions.

Features
- This tool is for inserting the 74060, 74061 and 74062 series, 8 row, 25 terminals to a row, connector into a printed circuit board

Specifications
Length: 50.00mm (1.970")

8 Row Power Module Inserter



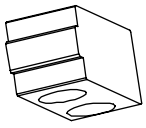
Order No.	Description
62202-0211	8 Row Power Module Inserter

Note: This tool module is to be used with a suitable tooling holder.
See ordering instructions

Features
- This module is for inserting the 74029-8XXX series 8 row power modules into a printed circuit board

Specifications
Length: 5.40mm (.213")

8 Row Alignment Block



Order No.	Description
62202-0212	8 Row Alignment Block

Note: This tool module is to be used with a suitable tooling holder.
See ordering instructions

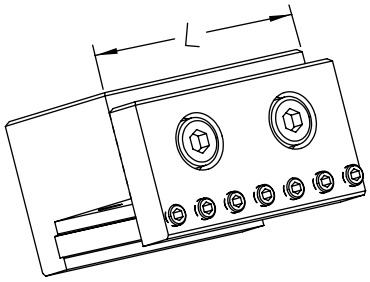
Note: VHDM is a registered trademark of Amphenol Corporation

Features
- This module is used together with an 8 row tool above for inserting the 74061 and 74062 series 8 row connectors with locating pins, into a printed circuit board

Specifications
Length: 7.00mm (.276")

Application Tooling
VHDM®

8 Row Tooling for Header Insertion Modules

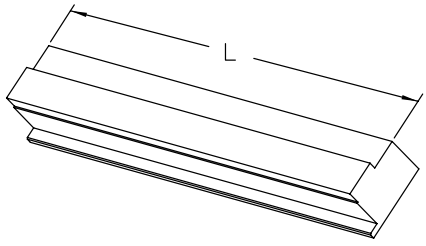


Order No.	Description	Dimension (L)
62201-9502	Tooling Holder	72.00
62201-9503		156.00

Features

- These tools are used to hold the various insertion tools required for a particular application. See below for more detail.

8 Row Tooling for Header Insertion Modules

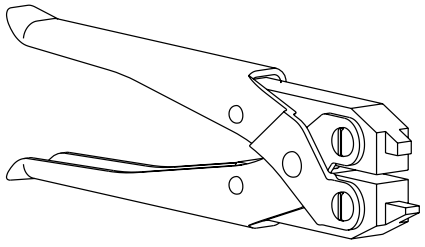


Order No.	Description	Dimension (L)
62202-0214	8 Row Daughtercard Insertion Module	100.00

Features

- These tools are used to press in 74040-XXXX daughtercard assemblies (composed of 74041 wafers, 74039 guidance and 74026 power modules) to a printed circuit board

Manual Insertion Tooling for VHDM Joiner Modules



Order No.
62100-3800

Connector Order No.	Description	Insertion Tool
74057, 74058 and 74059	6 by 10 Signal Module	62202-0207
74073	6 by 11 Signal Module (Special)	62201-1101
74057, 74058 and 74059	6 by 25 Signal Module	62202-0208
74060, 74061, 74062	8 by 10 Signal Module	62202-0209
	8 by 25 Signal Module	62202-0210
74029-6XXX	6 Row Power Module	62202-0211
74029-8XXX	8 Row Power Module	
74058 and 74059 with Pins	6 Row Alignment Block	62202-0212
74061 and 74062 with Pins	8 Row Alignment Block	

Features

- These tools are used to insert joiner modules onto the daughtercards after they have been pressed into a printed circuit board.

Note: VHDM is a registered trademark of Amphenol Corporation

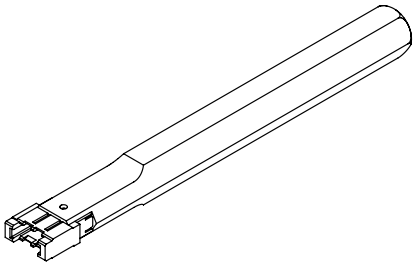
Application Tooling
VHDM®

VHDM Repair Tools

Features

Molex has developed a line of VHDM repair tools. These repair tools are used to remove and replace individual VHDM parts that may have been damaged at any point in the board assembly and/or handling process. With these repair tools, a VHDM user will not have to reject an entire connector and/or PC board. Users will have the ability to repair an individual connector, which will reduce scrap, plus save time and money.

6 Row Power Insulation Inserter Repair Tool



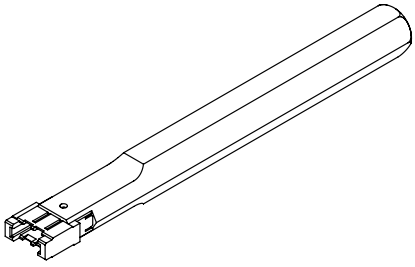
Features

This repair tool is used to insert a 74029 series, 6 row, 2 circuit, backplane power module insulator onto pins, on a printed circuit board.

Note: Plastic hammer and slip joint pliers required to properly replace and repair a power insulator. These products are readily available through your local industrial supplier and are not supplied by Molex.

Order No.	Description
62100-3500	6 Row Power Insulator Repair Tool

8 Row Power Insulation Inserter Repair Tool



Features

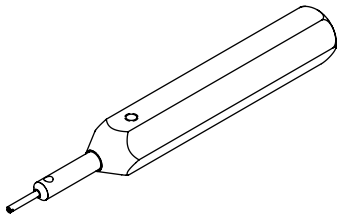
This repair tool is used to insert a 74029 series, 8 row, 3 circuit, backplane power module insulator onto pins, on a printed circuit board.

Note: Plastic hammer and slip joint pliers required to properly replace and repair a power insulator. These products are readily available through your local industrial supplier and are not supplied by Molex.

Order No.	Description
62100-3600	8 Row Power Insulator Repair Tool

Note: VHDM is a registered trademark of Amphenol Corporation

Single Pin Inserter Repair Tool



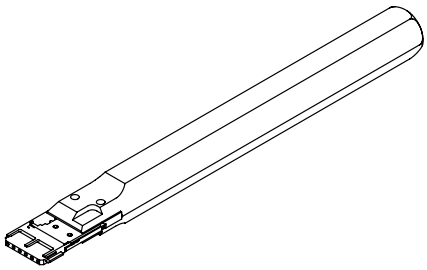
Features

This repair tool is used to insert an individual signal pin into a VHDM backplane header.

Note: Miniature needle nose pliers and tweezers required to properly replace and repair single pins. These products are readily available through your local industrial supplier and are not supplied by Molex.

Order No.	Description
62201-5700	Single Pin Insulator Repair Tool

6 Row Pin and Shield Repair Tool



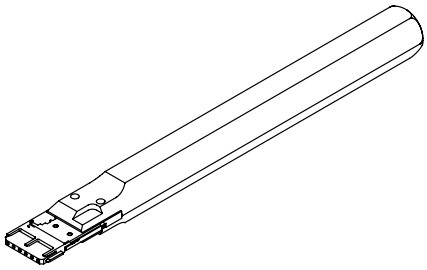
Features

This repair tool is used to insert multiple signal pins and/or individual shields into a 6 row VHDM backplane header.

Note: Plastic hammer required to properly insert shields. This product is readily available through your local industrial supplier and is not supplied by Molex.

Order No.	Description
62201-5800	6 Row Pin and Shield Repair Tool

8 Row Pin and Shield Repair Tool



Features

This repair tool is used to insert multiple signal pins and/or individual shields into a 8 row VHDM backplane header.

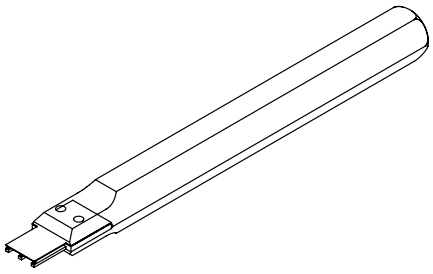
Note: Plastic hammer required to properly insert shields. This product is readily available through your local industrial supplier and is not supplied by Molex.

Order No.	Description
62201-5900	8 Row Pin and Shield Repair Tool

Note: VHDM is a registered trademark of Amphenol Corporation

Application Tooling VHDM®

6 Row Shield Extraction Repair Tool

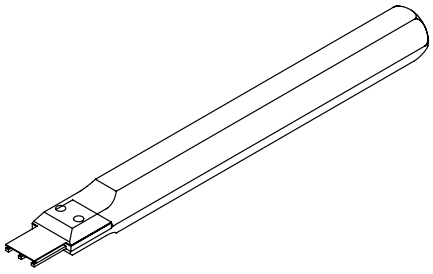


Features

This repair tool is used to remove damaged shields from 6 row VHDM backplane headers.

Order No.	Description
62201-6000	6 Row Shield Extraction Repair Tool

8 Row Shield Extraction Repair Tool

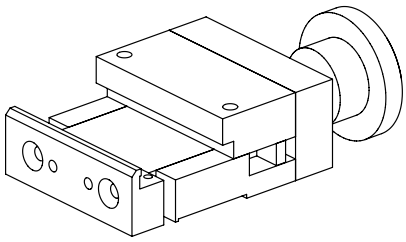


Features

This repair tool is used to remove damaged shields from 8 row VHDM backplane headers.

Order No.	Description
62201-6100	8 Row Shield Extraction Repair Tool

Stiffener Press Repair Tool

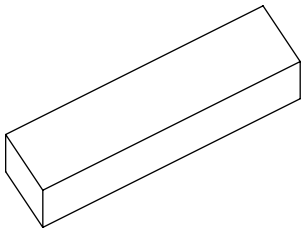


Features

These repair tools are used to remove and replace the stiffener from, and repair the VHDM daughtercard and power module receptacles assemblies.

Note: Plastic hammer, miniature needle nose pliers, two starrett feeler gauges .004 thick by 4" long and a pallet to support the PC board are required to properly repair a single wafer and power module. These products are readily available through your local industrial supplier and are not supplied by Molex.

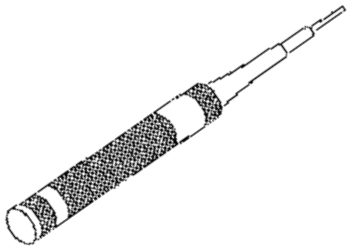
Press Block Repair Tool



Order No.	Description
62201-6200	Stiffener Press Repair Tool
62201-6250	Press Block Repair Tool

Note: VHDM is a registered trademark of Amphenol Corporation

Manual Backplane Single Contact Insertion Tool for HDM®

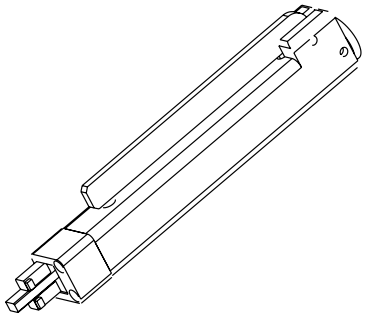


Features
- Inserts a single HDM backplane signal contact into a backplane module mounted to a PC board
- Intended use for field repairs of damaged backplane contacts

Specifications
Size: Diameter—15.00mm (.590")
Length—122.02mm (4.80")
Weight: .4kg (1 lb)

Description	Order No.	Product No.
Single Contact Insertion Tool	62100-1400	73642, 73643, 73644, 73942, 73943, 73944, 73770

Manual Daughtercard Module Removal Tool for HDM

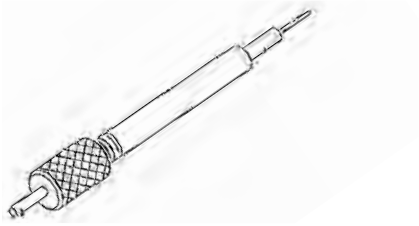


Features
- Separates modules from the stiffener assembly

Specifications
Size: Diameter—19.00mm (.750")
Length—150.00mm (6.00")
Height—32.00mm (1.25")
Weight: .7kg (1.5 lb)

Description	Order No.	Product No.
Daughtercard Module Removal Tool	62100-1300	73670

Manual Backplane Signal Pin Knockout Tool for HDM



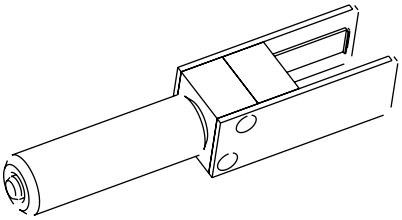
Features
- For the removal of backplane signal contacts from the PC board

Specifications
Size: Diameter—8.00mm (.300")
Length—80.00mm (3.00")
Weight: .1kg (.2 lb)

Description	Order No.	Product No.
Single Pin Knockout Tool	62100-1000	73642, 73643, 73644, 73942, 73943, 73944, 73770

Note: VHDM is a registered trademark of Amphenol Corporation

Manual Backplane Power Module Removal Tool for HDM®

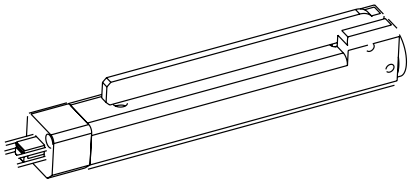


Features
- For removal of the backplane power module insulator

Specifications
Size: Length—83.00mm (3.20")
Width—15.00mm (.600")
Height—18.00mm (.700")
Weight: .2kg (.4 lb)

Description	Order No.	Product No.
Power Module Removal Tool	62100-1100	73656

Manual Backplane Power Contact Removal Tool for HDM

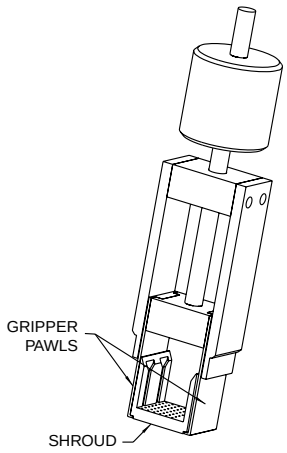


Features
- Removes the backplane power contact after the insulator is removed

Specifications
Size: Length—150.00mm (6.00")
Width—19.00mm (.750")
Height—32.00mm (1.25")
Weight: 7kg (1.5 lb)

Description	Order No.	Product No.
Power Contact Removal Tool	62100-1200	73656

Manual Shroud Removal Tool for HDM



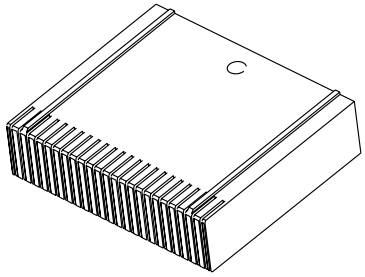
Features
- Hand-operated repair tool designed to remove shrouds from damaged HDM connectors so that repairs can be made to the connector

Description	Order No.	Product No.
48 Position Shroud Removal Tool	62100-3300	73087-0
72 Position Shroud Removal Tool	62100-3400	

Note: VHDM is a registered trademark of Amphenol Corporation

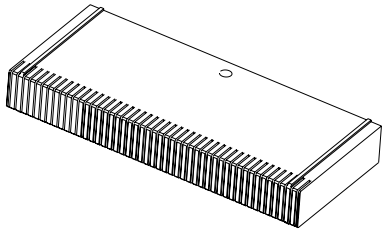
Application Tooling

Backplane Insertion Tools



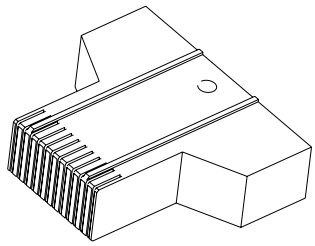
62200-5703

Features
- Inserts HDM connector to PC board
- For use with Press 62200-6400, 62200-8200, 62201-3800 or standard Arbor press



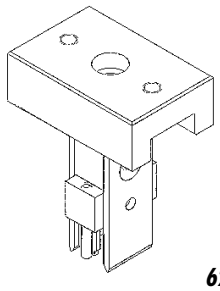
62200-5704

Specifications
Size: Length—100.00mm (4.00")
Width—14.00mm (.550")
Height—41.00mm (1.60")
Weight: .9kg (2 lb)



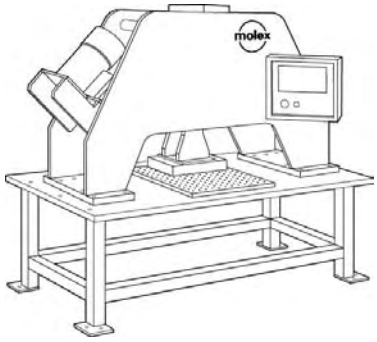
62200-5705

Description	Order No.	For Use with Product No.
Power Module Insertion Tool	62200-5711	73642, 73643, 73644, 73656, 73942, 73943, 73944, 73797, 73798, 73799, 73769, 73770, 73771, 73781, 73782, 73783, 738800, 73801, 73802
288 Position Insertion Tool	62200-5705	
144 Position Insertion Tool	62200-5703	
72 Position Insertion Tool	62200-8502	



62200-5711

Electric Press for HDM®

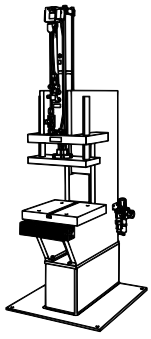


Features
- Variable speed AC drive
- Accommodates PCB sizes 600 by 760mm
- Handles board thickness from 1.27 (.050") to 6mm (.236")
- Accuracy within 0.05mm
- Touch screen control system
- PCB surface sensor to prevent board damage
- Optional features available: position sensing controls, data acquisition interface, load sensing controls, x-table or x-y table

Specifications
Size: Length—2006.00mm (79.00")
Width—965.00mm (38.00")
Height—2235.00mm (88.00")
Weight: 2497kg (5500 lb)
Electrical: 240V AC, 3-Phase, 50/60 Hz, 30A
Rate: 240 terminations per hour depending on operator skill

Description	Order No.
Electric Press—15 Ton	Contact Molex

Pneumatic Press for HDM



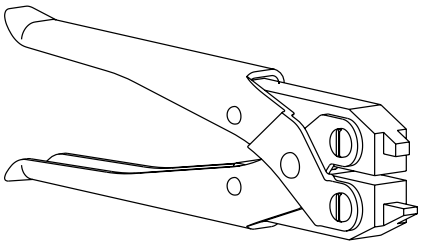
Features
- Ram guide for upper tooling plate
- Anti-rotation feature
- Mounting holes tapped for Molex tooling options
- Anti-tie down feature
- "CE" certified

Specifications
Size: Length—762.00mm (30.00")
Width—762.00mm (30.00")
Height—1676.00mm (66.00")
Weight: 1589kg (3500 lb)
Electrical: 110V AC
Air: 6.3kgf/cm^2 (90psi), 6 BAR
Rate: 240 terminations per hour depending on operator skill

Description	Order No.
Pneumatic Press—8 Ton	62200-8200
HDM Tool Kit	62201-3700
Press with Tool Kit	62201-3800

Note: VHDM is a registered trademark of Amphenol Corporation

Manual Insertion Tooling for HDM® Joiner Modules

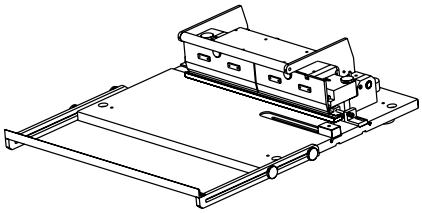


Order No.
62100-3800

Features

These tools are used to insert joiner modules onto the daughtercards after they have been pressed into a printed circuit board

Manual Stiffener Placement Tool for HDM



Description	Order No.	For Use with Product No.
HDM Stiffener Repair Tool	62201-5600	73670

Features

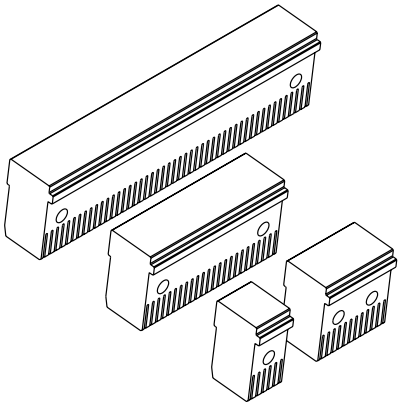
- The Stiffener Repair Tool will remove and replace a stiffener rail on a PCB, which requires an operator to obtain and use one tool, plus reduces their overall cost and learning curve
- Accommodates printed circuit boards up to 457.00 by 457.00mm (18.00 by 18.00") allowing for a wide range of repair capability
- Can remove and replace rails up to 406.40mm (16.00") long, providing repair flexibility
- All operations are manual and require no air or electric feeds—this provides energy savings and requires no machine installation, which lowers costs
- Lightweight design—this provides for easy storage and relocation

Specifications

Size: Height—254.00mm (10.00") fully open
Width—584.00mm (23.00")
Depth—445.00mm (17.50") base plate
635.00mm (25.00") with support rail fully extended
Unpacked Weight: 21.30kg (47 lb)

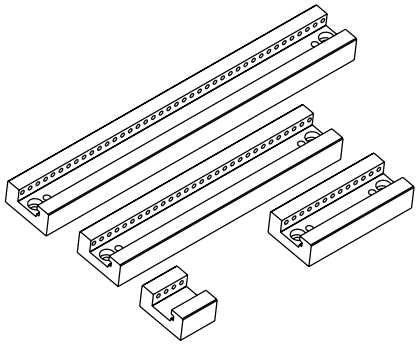
Application Tooling
MFB™ (Futurebus+)

Header Insertion Modules



Description	Length	Order No.	Product No.
5 by 6 (30 circuit)	12.00mm (.480)	62201-9505	54884
5 by 12 (60 circuit)	24.00mm (.940)	62201-9506	
5 by 24 (120 circuit)	48.00mm (1.890)	62201-9507	
5 by 48 (240 circuit)	96.00mm (3.780)	62201-9508	

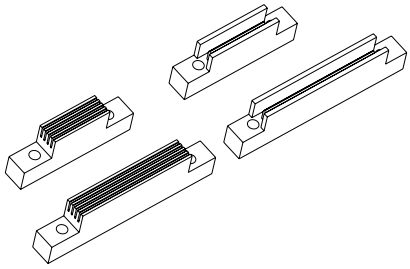
Module Holders

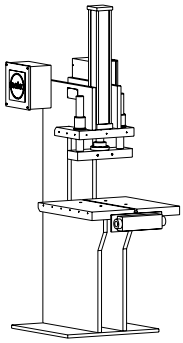


Description	Length	Order No.
60 circuit max.	24.00mm (.940)	62201-9501
180 circuit max.	72.00mm (2.830)	62201-9502
390 circuit max.	156.00mm (6.140)	62201-9503
540 circuit max.	216.00mm (8.500)	62201-9504

Application Tooling

Semi-Automatic Press Tooling for SCA-2





Features

- Tooling is simple to use
- Tooling can be purchased individually, allowing customization
- Tooling available for 40 and 80 circuit Molex connectors
- Tooling requires no lubrication

Description	Order No.	Use with Molex Connector
Lower Support for 40 circuit	62100-2501	73826-0002, 73829-0002
Top Aligner for 40 circuit	62100-2502	
Lower Support for 80 circuit	62100-2601	73826-0003, 73826-0001, 73829-0001
Top Aligner for 80 circuit	62100-2602	
Mounting Plate	62100-2900	All above connectors
Pneumatic Press only	62200-8200	
Pneumatic Press with Adapter Kit installed	62201-3800	
Pneumatic Press Adapter Kit only	62201-3700	

Manual Standard Press and Tool Kit for EBBI™ 50D Ribbon Cable



Complete Manual Press



Tool Kit

Features

- Connector accurately nested
- Feed-through or feed-to capability
- Termination has antibackup ratchet to ensure full termination cycle
- Accurate cable location
- Includes all change parts necessary to run EBBI IDT, 79058 and 70498 SCSI+ IDT plug in all circuit sizes

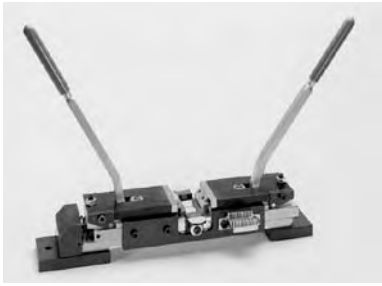
Specifications

Size: Width—230mm (9")
Depth—457mm (18")
Height—457mm (18")
Weight: 27kg (60 lb)
Rate: Approximately 250 connectors per hour, dependent on operator speed and application

Description	Order No.	Use with Molex Connector
Ribbon Cable Manual Press and Tool Kit	62200-5500	15-92-3XXX, 71660-35XX
Tool Kit only	62200-4600	

Application Tooling

Manual Bench Tool Double-Sided for Modular IC Socket System



Features

- Forms both sides of IC chip to carrier in 1 cycle
- Provisions for static grounding
- Interchangeable inserts for 24, 28 and 32 circuit carriers
- Compact and lightweight
- Minimal operator effort required

Specifications

Size: Width—114mm (4.5")
Depth—330mm (13")
Height—165mm (6.5")
Weight: 2.63kg (5 lb)
Rate: Up to 400 assemblies per hour, dependent on operator speed and application. Annual capacity of 800,000 assemblies.

IC Size	Order No.		
	Base Machine with Tool Kit	Tool Kit Only	Base Machine Only
24 Circuit	11-20-0976	11-20-0662	11-20-0647
28 Circuit	11-20-0977	11-20-0663	
32 Circuit	11-20-0978	11-20-0951	
40 Circuit	11-20-1353	11-20-0664	

Customer must supply 12 ICs with order to assure proper operation

Semi-Automatic Terminal Cutter for 50020 and 50002 Terminals



Order No.	Description	Terminal No.
11-20-1219	Terminal Cutter	50002, 50020

Application Tooling

Sealing Fixture for PC, CF and CardBus Cards



Features

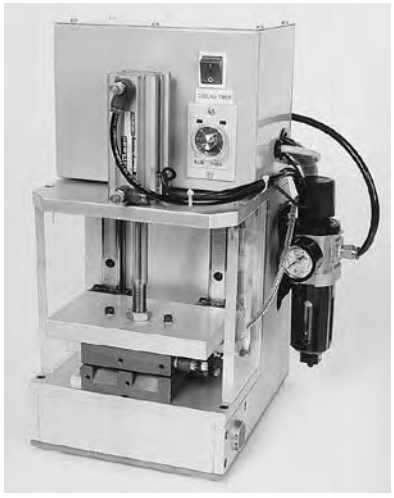
- Tooling holds all card kit parts in alignment for sealing
- Automatic control of termperature and dwell time for optimal sealing
- Change tooling for all card configurations

Specifications

Size: Width—279mm (11.0")
Depth—279mm (11.0")
Height—472mm (18.6")
Weight: 18.6kg (41 lb)
Electrical: 110V AC, 10A
Pneumatic: 3 BAR (80psig), 6L per second (.2 CFM)
Rate: 180 sealed cards per hour dependent on operator skill

Order No.	Description
67084-0111	Upper Die for Frame—89434, Cover—89436
67084-0112	Lower Die for Frame—89434, Cover—89436
67084-0211	Upper Die for Frame—89201, Cover—89248
67084-0212	Lower Die for Frame—89201, Cover—89248
67084-0311	Upper Die for CardBus Card Kit
67084-0312	Lower Die for CardBus Card Kit
67084-0411	Upper Die for CF Card Kits Frame—67045, Cover—67046
67084-0412	Lower Die for CF Card Kits Frame—67045, Cover—67046

Cooling Fixture for PC, CF and CardBus Cards



Features

- Quick cooling of sealed cards
- Automatic cooling cycle
- Change tooling for all card configurations

Specifications

Size: Width—279mm (11.0")
Depth—279mm (11.0")
Height—432mm (17.0")
Weight: 18.6kg (41 lb)
Electrical: 110V AC, 10A
Pneumatic: 3 BAR (80psig), 8L per second (.3 CFM)
Rate: 200 per hour dependent on operator skill

Order No.	Description
67084-0121	Upper Die for Frame—89434, Cover—89436
67084-0122	Lower Die for Frame—89434, Cover—89436
67084-0221	Upper Die for Frame—89201, Cover—89248
67084-0222	Lower Die for Frame—89201, Cover—89248
67084-0321	Upper Die for CardBus Card Kit
67084-0322	Lower Die for CardBus Card Kit
67084-0421	Upper Die for CF Card Kits Frame—67045, Cover—67046
67084-0422	Lower Die for CF Card Kits Frame—67045, Cover—67046

Separating Fixture for PC, CF and CardBus Cards



Features

- Used for repair or rework
- Process assists in removing card covers
- Change tooling for all card configurations

Specifications

Size: Width—305mm (12.0")
Depth—269mm (10.6")
Height—610mm (24.0")
Weight: 18.2kg (40 lb)
Electrical: 110V AC, 10A
Pneumatic: 3 BAR (80psig), 6L per second (.2 CFM)

Order No.	Description
67084-0131	Upper Die for Frame—89434, Cover—89436
67084-0132	Lower Die for Frame—89434, Cover—89436
67084-0231	Upper Die for Frame—89201, Cover—89248
67084-0232	Lower Die for Frame—89201, Cover—89248
67084-0331	Upper Die for CardBus Card Kit
67084-0332	Lower Die for CardBus Card Kit
67084-0431	Upper Die for CF Card Kits Frame—67045, Cover—67046
67084-0432	Lower Die for CF Card Kits Frame—67045, Cover—67046

Memory Card Manual Press For Cover 71139



Features

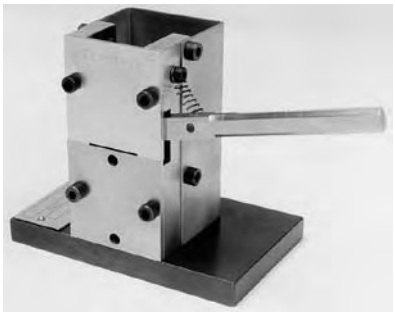
- Closes cover and crimps in 1 operation
- Adjustable closing force
- Audible "click" indicates cycle completion
- Card cover crimping nest slides out of press for easy loading

Specifications

Size: Width—150mm (6")
Depth—330mm (13")
Height—450mm (18")
Weight: 15kg (33 lb)
Rate: Up to 100 assemblies per hour, dependent on operator speed and application

Order No.	Description	Product
62200-1400	Manual Press for Memory Card Cover	71139

Manual 2-Circuit Stick Trim Fixture for MicroCross™ 71197 Series



Order No.	Product No.	Description
62200-3400	71197-9001	2-Circuit Stick Trim Fixture

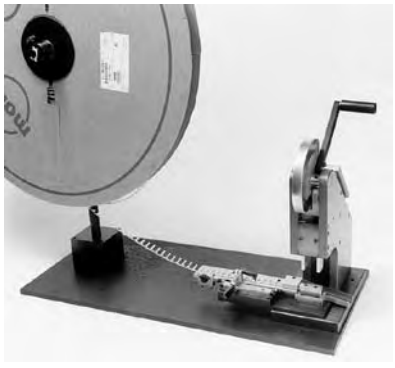
Features

- Stand-alone unit
- Separates 2-circuit strips from carrier stick
- Cutoff blades have multiple cutting edges for extended life
- Easily converts for right or left hand operators

Specifications

Size: Width—125mm (4.90")
Depth—75mm (3.00")
Height—112.7mm (4.48")
Weight: 1.8kg (4 lb)
Rate: Approximately 700 parts per hour dependent on operator skill

Manual Ground Blade Shear Fixture for MicroCross™ 71198 Series



Order No.	Description
11-31-6356	Manual Standard Press
62200-3350	Ground Blade Shear Fixture and Press

*Specifications are for complete set, including tool kit and press

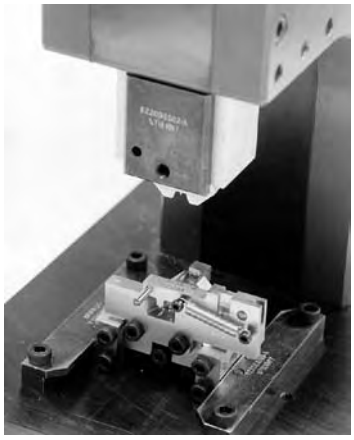
Features

- Separates ground blades (4) from carrier strip
- Adjustable stop for precise positioning
- For use in standard press Part #11-31-6356
- Full-cycle ratchet assures quality
- Tool kit includes: fixture, reel support and base plate

*Specifications**

Size: Width—800mm (31.50")
Depth—381mm (15.00")
Height—610mm (24.00")
Weight: 40.9kg (90 lb)
Rate: Approximately 900 parts per hour dependent on operator skill

Manual Ground Blade Crimp Fixture for MicroCross™ 71198 Series



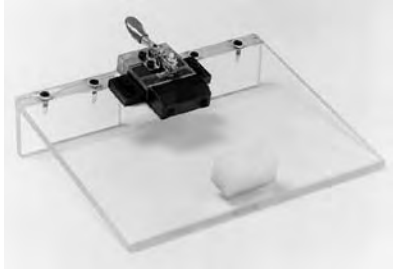
Features
- Crimps 3 to 4 coax style conductors onto MicroCross ground blade
- Crimps upper and lower braid clips simultaneously
- Built-in guides for loading and positioning coax wires before terminating
- For use in standard press Part #11-31-6356
- Full-cycle ratchet assures quality

Specifications*
Size: Width—270mm (10.63")
Depth—150mm (5.90")
Length—530mm (21.00")
Weight: 23.1kg (51 lb)
Rate: Approximately 130 parts per hour dependent on operator skill

Order No.	Description
11-31-6356	Manual Standard Press
62200-3850	Ground Blade Crimp Fixture and Press

*Specifications are for complete set, including Ground Blade Crimp Fixture and press

Manual 10-Circuit Soldering Fixture for MicroCross™ 73623



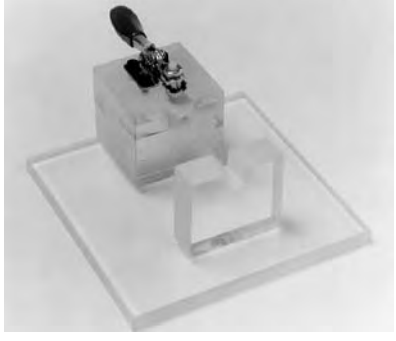
Features
- Holds 10-circuit P&D-A/P&D contact stick
- Easy setup and operation

Specifications
Size: Width—250mm (9.80")
Depth—197mm (7.75")
Length—100mm (3.90")
Weight: 0.9kg (2 lb)
Rate: Approximately 30 assemblies per hour dependent on operator skill

Order No.	Description
62200-6200	10-Circuit Sticks

*Specifications are for complete set, including Ground Blade Crimp Fixture and press

Manual 2-Circuit and Ground Blade Soldering Fixture for MicroCross™ 71198 and 71197 Series



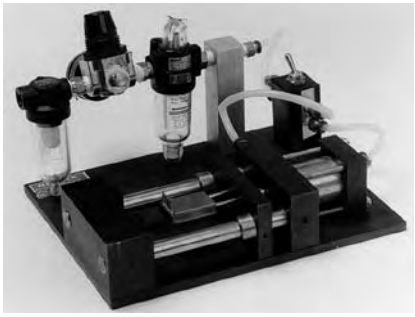
Features
- Holds MicroCross ground blade and 2-circuit stick
- Assists users in easily soldering wires in reversible holder to MicroCross ground blade and 2-circuit sticks

Specifications
Size: Width—250mm (9.80")
Depth—197mm (7.75")
Height—100mm (3.90")
Weight: 0.9kg (2 lb)
Rate: Approximately 30 assemblies per hour dependent on operator skill

Order No.	Description
62200-6300	MicroCross Ground Blade and 2 Circuit

Application Tooling

Stick Insertion Fixture for MicroCross™



Features

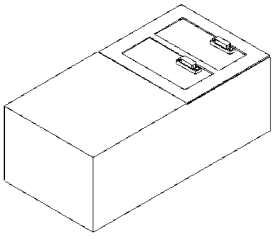
- Pneumatic operation
- Available as three P&D-A/P&D 10-circuit sticks, or a MicroCross ground blade and 2-circuit stick
- Assembles into P&D-A plug assembly

Specifications

Size: Width—257mm (10.10")
Depth—230mm (9.10")
Height—150mm (5.90")
Weight: 8kg (17.6 lb)
Air: Pressure—5.6 BAR (80psig)
Consumption—2.8L per minute (0.1 CFM)
Rate: Approximately 50 plug assemblies per hour dependent on operator skill

Order No.	Product No.	Description
62200-6600	71754-2000	10-circuit sticks

MicroCross™ Continuity and Hi-pot Tester



Features

Molex MicroCross tooling offers a tester kit which includes a standard commercial tester and two custom adapters. This tester is a Cirris model 1000H+ and the adapter model is a DVI-30. The adapter card supports DVI-A, DVI-D and DVI-I. The continuity and hipot test automatically perform a connection resistance test and an insulation resistance/ dielectric test on harness and cables. Test results are given audibly, visually and can be printed. DVI is an interface standard which provides an industry specification for a digital visual/video interface between a host device and a display device. Molex MicroCross is the industry standard for digital video. The rate of this tester is approximately 100 assemblies per hour.

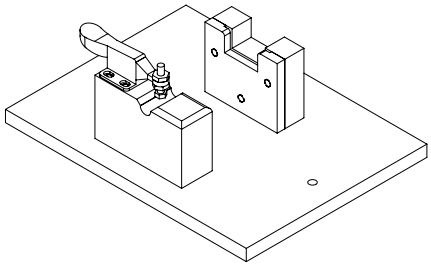
Specifications

Voltage: 105-134V AC, 60Hz
Dimensions: Height—127.00mm (05.00")
Width—330.20mm (13.20")
Depth—165.10mm (06.50")
Weight: Unpacked—3.4kg (7.5 lb)
Rate: Approximately 100 assemblies per hour, depending on operator skill level

Tester Order Number	Adapter Order Number	Kit and Tester Order Number
63600-0518	63600-0936	62201-7200*

This order number includes two adapter cards, which are required for double end testing

MicroCross™ Soldering Fixture



Features

The Molex MicroCross™ Digital Visual Interface soldering fixture supports a male plug and cable for soldering. This process allows the operator to securely place the plug and cable in the fixture and then use both hands to solder the wires to the terminals. This fixture accepts the connector in two orientations for quick soldering of all rows. The cable clamp is adjustable to accommodate all popular cable sizes. This soldering fixture allows for approximately 30 assemblies per hour, depending on operator skill level.

Specifications

Dimensions: Height—81.30mm (3.20")
Width—200.00mm (07.90")
Depth—150.00mm (05.90")
Weight: Unpacked—0.9kg (2.0 lb)
Rate: Approximately 30 assemblies per hour, depending on operator skill level

Order No.	Product No.	Description
62100-3700	74323-2001, 74323-2002, 74323-2003, 74323-2004, 74323-2011, 74323-2012, 74323-2031, 74323-2032, 74323-2033, 74323-2034	Soldering Fixture

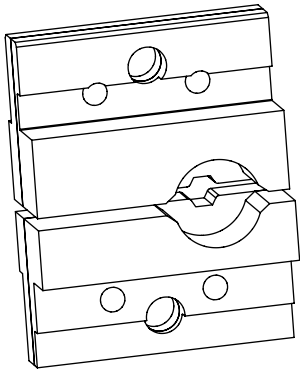
MicroCross™ Ferrule Crimp Tooling

Features

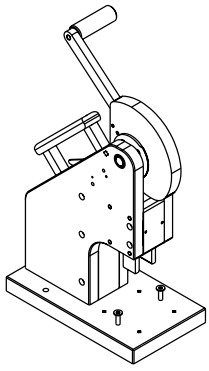
Molex MicroCross tooling offers a ferrule crimp tool that is designed to crimp both the large and small diameters of the ferrule simultaneously. There are two die sets to cover the two ferrules (see list below). The crimp tool works in conjunction with the Molex Standard Manual Press.

Mechanical

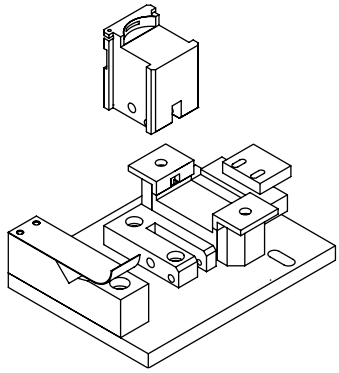
Dimensions (includes Press): Height—530.00mm (21.00")
Width—270.00mm (10.63")
Depth—150.00mm (05.90")
Weight: Unpacked—24.60 kg (55.00 lb)
Rate: Approximately 180 assemblies per hour, depending on operator skill level



Die Set



Manual Standard Press



Die Fixture

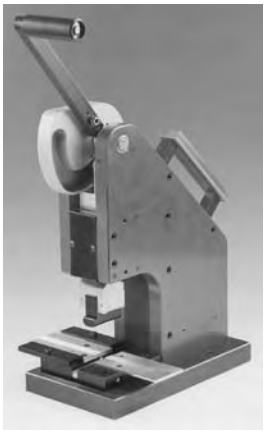
Order No.	Description
11-31-6356	Manual Standard Press
62200-4401	Die Fixture

Order No.	Cable Range	EMI Can	Description
62200-6700 62200-6701 62200-6702	6.25-7.31 (.246-.288)	88789-9332 88789-9333	Die Set Die Fixture + Die Set Press + Die Fixture + Die Set
62200-4431 62200-4441 62200-4443	8.18-8.99 (.322-.354)	88789-9332 88789-9333	Die Set Die Fixture + Die Set Press + Die Fixture + Die Set

Note: For all other crimp ferrule options contact Molex.

Application Tooling

Manual Standard Press for SCSI+ Shielded I/O for 0.63mm (.025") Pitch Ribbon Cable



Features

- Cable is located before termination
- Feed-through and feed-to capability
- Press has full-cycle ratchet to ensure complete termination
- Connectors may be spaced as close as 35mm (1.4")

Specifications

Size: Width—230mm (9")
Depth—457mm (18")
Height—457mm (18")
Weight: 27kg (60 lb)
Rate: Up to 150 connectors per hour, dependent on operator speed and application
Application Specification: AS70498-001

Order No.		Connector	Description
Press with Tooling	Tool Kit Only*		
62200-5500	62200-4600	70498-5068	Press for SCSI+ All Circuit Sizes

*If you already own a press, only tool kit is necessary

Manual Discrete Wire Press for SCSI+ Shielded I/O





Features

- Separate loading fixture allows user to load nests off-line to increase productivity
- Tool kits available for 50 and 68 circuit product, minimizing the investment needed to terminate different circuit sizes
- Low force to cut-off wires and terminate the plug
- Safety posts assure the operator cannot terminate unless nests are together reducing the risk of damaging tooling
- Designed to be used either as a complete lace, cut and terminate tool or one cut and terminate press will support up to 5 lacing fixtures

Specifications

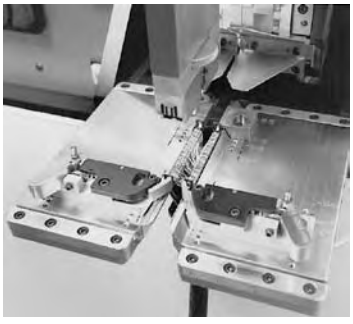
Size:
Width: Press—254mm (10.00")
Fixture—61mm (2.5")
Depth: Press—392mm (16.00")
Fixture—135mm (5.5")
Height: Press—466mm (19.00")
Fixture—123mm (5.0")
Weight: Press—81.4kg (37 lb)
Fixture—3.3kg (1.5 lb)
Production Rate:
Loading—Able to load nine 50 circuit housings per hour, dependent on operator skill
Termination—Able to trim and terminate 60 plug ends per hour, dependent on operator skill
Application Specification: AS79058-001

Order No.	Connector	Description
62200-0000	71295	Manual Press Only*
62200-0100		Manual Press Tooling for 50 Circuit Plug
62200-0200		Manual Press Tooling for 68 Circuit Plug
62200-2800		Complete Press with Tooling for 50 Circuit Plug†
62200-2500		Complete Press with Tooling for 68 Circuit Plug†
62200-0300		Loading Fixture for 50 Circuit Upper Housing
62200-0400		Loading Fixture for 68 Circuit Upper Housing
62200-0500		Transfer Clamp for 50 Circuit Upper Housing
62200-0600		Transfer Clamp for 68 Circuit Upper Housing
62200-2600		Loading Fixture and Transfer Clamp for 50 Circuit
62200-2700		Loading Fixture and Transfer Clamp for 68 Circuit

*Manual press requires specific tooling for corresponding circuit size
†Complete press includes manual press, tooling for one circuit size, loading fixture and transfer clamp

Semi-Automatic Terminator for SCSI+ Shielded I/O for Jacketed Multi-Conductor Cable





Order No.	Connector*	Description
62300-4200†	15-87-1050, 15-87-1068	Semi-Automatic Press for Jacketed Cable

*Terminator is furnished with tooling to process 50 and 68 position connectors
†Unless otherwise specified, terminator will be delivered to operate at 120V AC. If 220V is specified, machine will be delivered with US standard plug.

Features

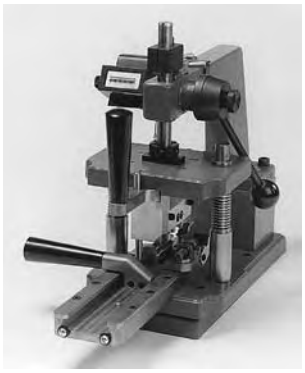
- All-electric operation; no air required
- Easy to set up and operate
- Up to 25 different jobs can be saved in memory
- Optional speech synthesizer to announce wire color
- Keypad with display shows operator connector position, number of connectors made and diagnostic faults messages

Specifications

Size: Width—560mm (22")
Depth—660mm (26")
Height—580mm (23")
Weight: 55kg (120 lb)
Electrical: Voltage—110/220V AC, 50/60 Hz
Current—10.0A at 120V or 5.0A at 220V
Rate: Up to twenty 50 circuit (or fifteen 68 circuit) plugs per hour, dependent on operator speed and application
Application Specification: AS79058-001

Application Tooling
Ultra+™ VHDCI

Termination Press



Order No.
62200-4500

Features

The Ultra+ Terminating Press was designed as a stand-alone unit capable of doing all the steps necessary to terminate a VHDCI connector. It is ideally suited for low-volume, manual applications.

Specifications

Size: Width—203mm (8.0")
Depth—457mm (18.0")
Height—355mm (14.0")
Weight: 18.0kg (40 lb.)
Rate: 4 complete 68 circuit plugs per hour depending on operator skill

Raptor II Semi-Automatic Termination Machine



Order No.
62300-4100

Features

The Raptor II Machine will do all the steps necessary to terminate a VHDCI connector. The wire holding covers are positioned in the machine and the prepared cable is clamped in place. Then the tool automatically indexes to receive each pair of wires. Each pair of wires, when positioned, is automatically pushed into the covers and cut off. When all the wires are loaded, the plug is manually placed in the tool and terminated by activating the lever on the side of the machine.

Specifications

Size: Width—505mm (19.9")
Depth—660mm (26.0")
Height—575mm (22.6")
Weight: 90.8kg (200 lb.)
Electrical: Voltage—110/220V AC
Current—5/2.5A
Power Supply Current Frequency—50/60 Hz
Rate: 12 complete 68 circuit plugs per hour depending on operator skill

Application Tooling

Manual Ferrule Crimp Hand Tool for LFH™



Order No.	Description
62100-0100	Ferrule Hand Tool with Dies
62100-0200	
11-31-6379	Untooled Hand Tool
62100-0101	Ferrule Crimping Die
62100-0201	

Features

- Crimp die has 2 positions to crimp the large and small diameter in a 2 step operation
- For low volume, prototype or repairs



Standard Manual Press for Ferrule Crimp LFH™



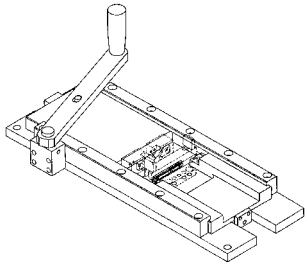
- Able to crimp both large and small diameter of the ferrule in 1 step
- Ratchet terminator assures completion of full cycle
- Modularity, able to use same press for stick prep and ferrule crimp with a simple die change





Order No.	Ferrule No.	Description
62200-1295	71256-0001	Ferrule Crimp Manual Press with Fixture and Dies
62200-1395	71256-0002	
62200-1200	71256-0001	Fixture and Dies Only
62200-1300	71256-0002	
62200-1202	71256-0001	Manual Press Ferrule Crimp, Dies Only
62200-1301	71256-0002	

Manual Stick Loading Tool for LFH™



Features

- Used for inserting terminated LFH sticks into LFH connector housing
- All 4 sticks are simultaneously inserted
- Stick-holding nest has feature to prevent loading sticks upside down
- Insertion lever has positive stop for consistent insertions
- Holes provided for mounting to workbench

Specifications

Size: Width—400mm (16")
Depth—250mm (10")
Height—130mm (5")
Weight: 11.3kg (25 lb)
Rate: Up to 60 plugs per hour, dependent on operator speed and application

Order No.		Use with Molex Connector	Description
Complete Tool	Tool Kit Only		
62200-1500	62200-0800	70929-2000	Stick Insertion Tool, 60-Circuit Plug
62200-1600	62200-0900	71691-0003	Stick Insertion Tool, 60-Circuit Receptacle
62200-1700	62200-1000	71624-3000	Stick Insertion Tool, 160-Circuit Plug

Application Tooling

Cable Selector Machine 1.00 and 1.27mm Series for I/O Cable



Features

- Lightweight
- Programmable
- After one end is terminated, machine automatically indicates what circuit other end should be placed in
- Automatically cuts off ends once inserted into nest
- 1.00mm, 120 circuit requires 2 machines to complete

Specifications

Size: Width—310mm (12.20")
Depth—545mm (21.46")
Height—220mm (8.66")
Weight: 15kg (33.6 lb)
Electrical: Voltage—100V, 50/60 Hz, Current—3.0A
Rate: 1.00mm series, 10 circuit—22 ends per hour
1.00mm series, 26 circuit—11 ends per hour
1.00mm series, to 120 circuit—2 ends per hour
1.27mm series, 20 circuit—14 ends per hour
1.27mm series, to 80 circuit—4 ends per hour
depending on operator skill

Order No.	For Connector Series	Description
57846-7000	52316	1.00mm Cable Selector 10 to 68 Circuits
57868-7000		1.00mm Cable Selector-120P(A)
57869-7000		1.00mm Cable Selector-120P(B)
57847-7000		1.27mm Cable Selector

Manual Wiring Jig 1.00 and 1.27mm I/O Series



Features

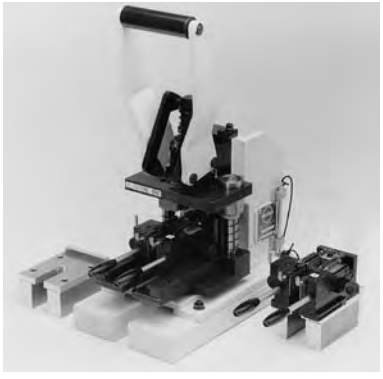
- Presses wires into upper housing and cuts off the ends
- Manual version of the selector machine
- Available in dedicated circuit sizes only

Specifications

Size: Width—180mm (7.09")
Depth—380mm (14.96")
Height—440mm (17.32")
Weight: 16kg (35.8 lb)
Rate: 1.00mm series, 10 circuit—15 ends per hour
1.00mm series, 26 circuit—8 ends per hour
1.27mm series, 20 circuit—8 ends per hour
1.27mm series, to 50 circuit—6 ends per hour

Order No.	For Connector Series	Description
57859-5000	52316	1.00mm Manual Wiring Jig for 10 Circuit
57879-5000		1.00mm Manual Wiring Jig for 20 Circuit
57849-5000		1.00mm Manual Wiring Jig for 26 Circuit
57883-5000		1.00mm Manual Wiring Jig for 50 Circuit
57874-5000		1.00mm Manual Wiring Jig for 68 Circuit
57883-5000		1.00mm Manual Wiring Jig for 80 Circuit
57826-5000		1.27mm Manual Wiring Jig for 20 Circuit
57837-5000		1.27mm Manual Wiring Jig for 26 Circuit
57843-5000		1.27mm Manual Wiring Jig for 36 Circuit
57862-5000		1.27mm Manual Wiring Jig for 50 Circuit
57835-5000		1.27mm Manual Wiring Jig for 68 Circuit
57856-5000		1.27mm Manual Wiring Jig for 80 Circuit

Manual Wiring Jig, 1.00mm, 1.20 Circuit for I/O Series



Features

- Manual tool for pressing wires into 120 circuit upper housing and cutting off ends
- Comes with "A" and "B" nests which are loaded outside the press then inserted for trimming

Specifications

Size: Width—180mm (7.09")
Depth—380mm (14.96")
Height—440mm (17.32")
Weight: 16kg (35.8 lb)
Rate: 2 ends per hour depending on operator skill

Circuits	Order No.	For Connector Series
120	57832-5000	55032

Manual Wire Terminator 1.00 and 1.27mm Series



Features

- Presses upper housing into plug assembly
- All wires terminated simultaneously
- Modular and portable
- 1.00mm, 120 circuit requires both an "A" and a "B" tool to complete a cable end

Specifications

Size: Width—180mm (7.09")
Depth—380mm (14.96")
Height—440mm (17.32")
Weight: 16kg (35.8 lb)
Rate: 82 ends per hour
120 circuit—41 ends per hour depending on operator

Order No.	For Shell Body Series	Description
57860-5000	52660	1.00mm Cable Wire Terminator for 10 Circuit
57850-5000		1.00mm Cable Wire Terminator for 26 Circuit
57833-5000	53584	1.00mm Cable Wire Terminator for 120 Circuit (A)
57848-5000		1.00mm Cable Wire Terminator for 120 Circuit (B)
57827-5000	52316	1.27mm Cable Wire Terminator for 20 Circuit
57838-5000		1.27mm Cable Wire Terminator for 26 Circuit
57844-5000		1.27mm Cable Wire Terminator for 36 Circuit
57863-5000		1.27mm Cable Wire Terminator for 50 Circuit
57836-5000		1.27mm Cable Wire Terminator for 68 Circuit
57857-5000		1.27mm Cable Wire Terminator for 80 Circuit

Manual Shell Crimping Press 1.00 and 1.27mm Series



Features

- Modular and portable
- Crimps the shell onto the loaded plug assembly

Specifications

Size: Width—180mm (7.09")
Depth—380mm (14.96")
Height—440mm (17.32")
Weight: 16kg (35.8 lb)
Rate: 72 ends per hour depending on operator

Order No.	For Connector Series	Description
57863-5000	52661	1.00mm Cable Wire Shell Crimping Press for 10 Circuit
57851-5000		1.00mm Cable Wire Shell Crimping Press for 26 Circuit
57828-5000	52370	1.27mm Cable Wire Shell Crimping Press for 20 Circuit
57839-5000		1.27mm Cable Wire Shell Crimping Press for 26 Circuit
57845-5000		1.27mm Cable Wire Shell Crimping Press for 36 Circuit
57864-5000		1.27mm Cable Wire Shell Crimping Press for 50 Circuit
57858-5000		1.27mm Cable Wire Shell Crimping Press for 80 Circuit

Application Tooling

Manual Plug Hand Tool for 90075 Series

- For prototype and repairs
- Ratchet will not open until crimp action is completed
- Die sets can be changed to accommodate different circuit sizes



Description	Order No.	Plug	Plug Size and No. of Contacts
W.E. Plug, N.K.	69008-1120	90075-0003	4/4
		90075-0027	
	69008-1121	90075-0011	6/4
W.E. Plug, Key	69008-1121	90075-0035	
W.E. Plug, N.K.	69008-1122	90075-0007	6/6
		90075-0031	
	69008-1123	90075-0136/0145	8/6
	69008-1124	90075-0132/0141	8/8

This range of hand tools is for the application of loose part plugs only

Manual Shielded Plug Hand Tool for 95043 Series

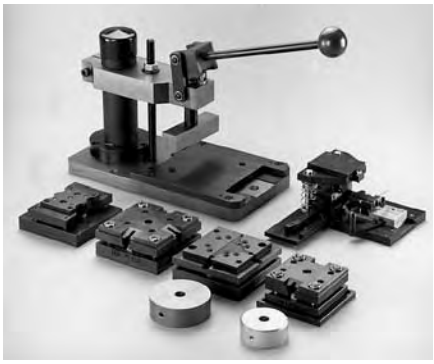
- For prototype and repairs
- Ratchet will not open until crimp action is completed
- Die sets can be changed to accommodate different circuit sizes



Description	Order No.	Plug
Shielded 5.40mm Cable	69008-1100	95043-2881
Shielded 6.00mm Cable	69008-1104	95043-5881

Application Tooling

Manual Press and Fixtures for 90075



Description	Order No.
Manual Press Only	69020-0660

Description	Order No.		Plug	Plug Size and No. of Contacts
	Terminator Die	Terminator Die Spare Tooling		
W.E. Plug, N.K.*	69020-0500		90075-0003	4/4
			90075-0027	
W.E. Plug, Key*			90075-0011	6/4
			90075-0035	
			90075-0012	
			90075-0036	
W.E. Plug, N.K.*			90075-0007	6/6
			90075-0031	
W.E. Plug, Key*			90075-0008	
			90075-0032	
W.E. Plug, N.K.*	69020-0140		90075-0128	8/6 S. Body
			90075-0136	
			90075-0145	
			90075-0124	8/8 S. Body
			90075-0132	
			90075-0141	

*These are terminated as loose parts only

Application Tooling

Shielded Modular Plug Auto Termination Machine for 95043 Series



Description	Order No.	Product No.
Shielded Modular Plug Auto-Termination	62300-1400	95043

Features

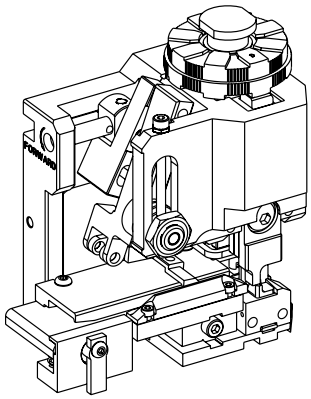
- High precision
- Easily changeable tooling
- Portable
- All electric operation
- Simple operation

Specifications

Weight: 10.5kg (23.2 lb)
Size: Width—150mm (5.9")
Depth—305mm (12")
Height—150mm (5.9")
Electrical: 110V, 60 Hz, 7A
Rate: 600 terminations per hour depending on operator skill

Application Tooling

Semi-Automatic
Mini-Mac Applicator
For 90075 Series Plugs



US Press			
Description	**Order No.**	**Volts**	**Used With**
TM-3000	63801-7200	110V	FineAdjust and Mini-Mac Applicators
	63801-7300	220V	

Europe Press			
Description	**Order No.**	**Volts**	**Used With**
P100 Bench Press	69014-0135	220V	FineAdjust and Mini-Mac Applicators
P107 Bench Press	69014-0092		

Plug Type	Mini-Mac Applicator	Mini-Mac Spare Tooling
90075 4/4	69037-1213	69037-2213
90075 6/2	69037-1228	69037-2228
90075 6/4	69037-1229	69037-2229
90075 6/6	69037-1183	69037-2183
90075 8/8	69037-1190	69037-2190

Application Tooling

Semi-Automatic TM-40/42
Terminator Dies
For 90075 Series



Description	Order No.	Volts	Used With
European TM-42 Press	69002-5000	220V	T2 and Terminator Dies
US TM-42 Press	69002-5001	110V	

Description	Order No.		Plug	Plug Size and No. of Contacts
	Terminator Die	Terminator Die Spare Tooling		
W.E. Plug, N.K.*	69017-0087	69017-0088	90075-0001	4/4
			90075-0025	
			90075-0049	4/3
			90075-0053	
	69017-0069	69017-0067	90075-0057	6/2
W.E. Plug, Key*	69017-0065	69017-0059	90075-0058	
W.E. Plug, N.K.*	69017-0069	69017-0067	90075-0061	6/3
W.E. Plug, Key*	69017-0065	69017-0059	90075-0062	
W.E. Plug, N.K.*	69017-0069	69017-0067	90075-0009	6/4
	69017-0065	69017-0059	90075-0033	
W.E. Plug, Key*			90075-0010	
			90075-0034	
W.E. Plug, N.K.*	69017-0068	69017-0066	90075-0005	6/6
			90075-0029	
W.E. Plug, Key*	69017-0060	69017-0058	90075-0006	
			90075-0030	
W.E. Plug, N.K.*	69017-0096	69017-0044	90075-0126	8/6 S. Body
			90075-0134	
			90075-0143	
	69017-0095	69017-0050	90075-0122	8/8 S. Body
			90075-0130	
			90075-0139	

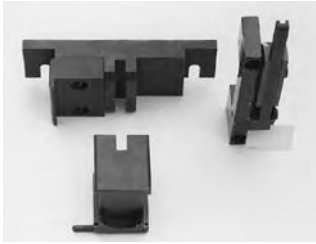
Application Tooling

Manual Standard Press For RF Coaxial Connectors



Features

- Fullcycle ratchet on manual press
- Employs same crimp dies as hand tools (not included)
- Complete tool requires press, fixture and a die
- Hand tools and die must be ordered separately



RF Tool Kit

Order No.	Description	RG/U Cable	Series
11-31-6356	Manual Press		
11-31-7559	Die Holder Fixture		
11-21-9507	Manual Standard Press and Fixture		
11-31-9025	Press Die	55, 58, 141A, 142B	BNC, TNC
11-31-9026		59, 62	

Crimp Application Tooling
Hand Crimpers
Cross Reference

Molex Japan Hand Tools



- Ideal for prototype work, small production volumes and field repair
- Ratchet release action determines correct crimp height repeatability
- Adjustable eccentric to allow for crimp pressure adjustment
- Wire stop and terminal locator on most tools
- Forms both conductor and insulation crimps in one action
- Competitively priced

Preferred Version in Japan—Not Available in the US

Terminal Series No.	Order No.			Modular Crimp Die	Wire Gauge AWG (mm^2)	Insulation Diameter	Strip Length
	Hand Tool	Extraction Tool	Insertion Tool				
1189/1190	JHTR1031C	11-26-0029	11-02-0003		14-20 (2.00-0.50)	1.9-3.8 (.075-.150)	3.7-4.2 (.146-.165)
1380/1381	JHTR1031C	11-26-0029	11-02-0003		18-24 (0.80-0.20)	1.5-3.18 (.059-.122)	3.7-4.2 (.146-.165)
1433/1434	JHTR2262	11-26-0029	11-02-0003		24-28 (0.20-0.08)	1.1-1.5 (.043-.059)	3.7-4.2 (.146-.165)
1560/1561	JHTR1719C	11-26-7034	11-02-0001		18-24 (0.80-0.20)	1.5-3.0 (.059-.118)	2.8-3.4 (.110-.134)
1854/1855	JHTR2262A	11-26-7034	11-02-0001		22-26 (0.35-0.12)	1.3-1.5 (.051-.059)	2.6-3.2 (.102-.126)
1854/1855	JHTR2262J	11-26-7034	11-02-0001		26-28 (0.12-0.08)	0.8-1.3 (.031-.051)	2.6-3.2 (.102-.126)
2477/2478	11-26-0010	11-26-0059			18-22 (0.08-0.35)	1.7-2.5 (.067-.098)	3.0-3.5 (.118-.138)
2578	11-26-0010	11-26-0059			24-26 (0.20-0.12)	1.2-1.5 (.047-.059)	3.0-3.5 (.118-.138)
2759	JHTR2262J	J5800-004	11-02-0004		26-28 (0.12-0.08)	0.8-1.3 (.031-.051)	2.8-3.4 (.110-.134)
5005/5006	JHTR1719C	J5800-002	11-02-0005		18-24 (0.80-0.20)	1.5-3.0 (.059-.118)	2.7-3.3 (.106-.130)
5008/5009	JHTR2262A	J5800-002	11-02-0005		24-26 (0.20-0.12)	1.3-1.7 (.051-.067)	2.7-3.3 (.106-.130)
5103	JHTR5907				22-28 (0.35-0.08)	1.2-1.9 (.047-.075)	2.6-3.2 (.102-.126)
5139	JHTR2262J	11-03-0022	11-02-0004		26-28 (0.12-0.08)	0.8-1.3 (.031-.051)	2.8-3.4 (.110-.134)
5159	JHTR2262J	J5800-004	11-02-0004		26-28 (0.12-0.08)	0.8-1.3 (.031-.051)	2.8-3.4 (.110-.134)
5167	JHTR2445A	J5800-004/57092-6000			18-22 (0.08-0.35)	1.7-2.5 (.067-.098)	3.0-3.5 (.118-.138)
5168	JHTR2445A	J5800-004/57092-6000			24-26 (0.20-0.12)	1.2-1.5 (.047-.059)	3.0-3.5 (.118-.138)
5175	JHTR1031C				16-22 (1.30-0.35)	1.7-3.1 (.067-.122)	3.7-4.3 (.146-.169)
5190-1				JM5865A			6.00-6.60 (.236-.260)
5190-01P				JM5865A			6.00-6.60 (.236-.260)
5194	JHTR5904	11-26-0100			18-24 (0.80-0.20)	1.3-3.0 (.051-.118)	3.0-3.5 (.118-.138)
5225	JHTR5906	11-26-0100			22-28 (0.35-0.08)	1.2-2.6 (.047-.102)	3.0-3.5 (.118-.138)
5241	JHTR2262J	11-26-0060			26-28 (0.12-0.08)	0.8-1.3 (.031-.051)	2.6-3.2 (.102-.126)
5263	JHTR5974				22-28 (0.35-0.08)	1.2-1.9 (.047-.075)	2.4-2.9 (.094-.114)
5294	11-26-0101	J5800-009				1.3-1.5 (.051-.059)	2.0-2.5 (.079-.098)
5298				JM5998A			4.70-5.30 (.185-.209)
5298T2				JM5998A			4.70-5.30 (.185-.209)
5378	57050-5000					1.5 (.059) max.	1.7-2.3 (.067-.091)
5394T2	57029-5000				20-22 (0.50-0.35)	2.1 (.083) max.	2.1-2.7 (.083-.106)
5479PBT2	57035-5000	57005-6000	57005-6000		30-34 (0.05-0.02)	0.5-0.9 (.020-.035)	1.2-3.0 (.047-.118)
5556/5558	57027-5000	57031-6000			18-24 (0.80-0.20)	2.3-3.1 (.091-.122)	3.0-3.5 (.118-.138)
5556T2/5558T2	57064-5000	57031-6000			22-28 (0.35-0.08)	0.9-1.8 (.035-.071)	2.8-3.3 (.110-.130)
5659	JHTR5972					1.1-1.7 (.043-.067)	2.5-3.0 (.098-.118)
8980-3C				57102-3000			5.00-5.50 (.197-.217)
8980-3C1				57102-3000			5.00-5.50 (.197-.217)
8980-4C				JM5866A			3.70-4.20 (.146-.165)
8980-4C1				JM5866A			3.70-4.20 (.146-.165)
8980-6C				JM5866A			3.70-4.20 (.146-.165)
50011	57032-5000	57105-6000			24-30 (0.20-0.05)	0.8-1.4 (.031-.055)	1.6-2.1 (.063-.083)
50012/50013	57046-5000				24-28 (0.20-0.08)	1.15 (.045) max.	1.7-2.3 (.067-.091)
50031	57075-5000	57105-6000			30-34 (0.05-0.02)	0.5-0.9 (.020-.035)	1.6-2.1 (.063-.083)
50034	57056-5000	57057-6000			26-30 (0.12-0.05)	0.8-1.4 (.031-.055)	1.4-1.9 (.055-.075)
50038/50039	57085-5000				AVS0.3	1.8 (.071) max.	2.0-2.5 (.079-.098)
50038/50039	57086-5000				CAVS0.5	1.8 (.071) max.	2.0-2.5 (.079-.098)
50051	57053-5000				30-33 (0.05-0.025)	0.56-0.85	1.7-2.3 (.067-.091)
50058	57068-5000	57072-6000			28-32 (0.08-0.03)	1.0 (.039) max.	1.4-1.9 (.055-.075)
50061	57070-5000	57072-6000			28-32 (0.08-0.03)	1.0 (.039) max.	1.4-1.9 (.055-.075)
50065		57094-6000					2.4-2.9 (.094-.114)
50079	57177-5000	57072-6000			26-28 (0.12-0.08)	1.0 (.039) max.	1.4-1.9 (.055-.075)
50080		57072-6000					1.4-1.9 (.055-.075)
50083	57036-5000	57033-6000	57033-6000		24-26 (0.20-0.12)	1.6 (.063) max.	3.0-3.5 (.118-.138)
50084	57036-5000	57033-6000	57033-6000		22-24 (0.35-0.20)	1.6 (.063) max.	3.0-3.5 (.118-.138)
50087	57036-5000	57033-6000	57033-6000		24-26 (0.20-0.12)	1.6 (.063) max.	3.0-3.5 (.118-.138)
50088	57036-5000	57033-6000	57033-6000		22-24 (0.35-0.20)	1.6 (.063) max.	3.0-3.5 (.118-.138)

Crimp Application Tooling
Hand Crimpers
Cross Reference

Molex Japan Hand Tools

Terminal Series No.	Order No.			Modular Crimp Die	Wire Gauge AWG (mm²)	Insulation Diameter	Strip Length
	Hand Tool	Extraction Tool	Insertion Tool				
50089		57094-6000					2.4-2.9 (.094-.114)
50095/50096	57097-5000	57120-6000			16 (1.30)	3.1-3.4 (.122-.134)	3.7-4.3 (.146-.169)
50097	57118-5000				20-24 (0.50-0.20)	1.4-2.1 (.055-.083)	2.5-3.0 (.098-.118)
50098	57119-5000				18-22 (0.08-0.35)	1.8-2.6 (.071-.102)	2.5-3.0 (.098-.118)
50099		57072-6000					1.4-1.9 (.055-.075)
50105/50106	57106-5000	57120-6000			22-24 (0.35-0.20)	2.2-2.5 (.087-.098)	3.7-4.3 (.146-.169)
50118/50119	57085-5000				AVS0.3	1.6 (.063) max.	2.0-2.5 (.079-.098)
50118/50119	57086-5000				CAVS0.5		2.0-2.5 (.079-.098)
50125	57140-5000	57072-6000			26-28 (0.12-0.08)	1.6 (.063) max.	1.4-1.9 (.055-.075)
50127/50128	57125-5000	57120-6000			20-24 (0.50-0.20)	1.15-1.87 (.045-.074)	3.7-4.3 (.146-.169)
50133	57139-5000	57072-6000			28-32 (0.08-0.03)	1.0 (.039)max.	1.4-1.9 (.055-.075)
50146	57168-5000	57161-6000				1.4-1.9 (.055-.075)	2.0-2.5 (.079-.098)
50147	57132-5000					1.4-1.9 (.055-.075)	2.0-2.5 (.079-.098)
50148	57132-5000					1.4-1.9 (.055-.075)	2.0-2.5 (.079-.098)
50156	57135-5000				AV-0.5F	2.2-2.3 (.087-.091)	2.0-2.5 (.079-.098)
50200	57174-5000	57105-6000			22 (0.35)	1.4 (.055) max.	1.6-2.1 (.063-.083)
50207	57187-5000						2.0-2.5 (.079-.098)
50212	57176-5000	57105-6000			24-30 (0.20-0.05)	1.1-1.4 (.043-.055)	1.3-1.8 (.051-.071)
50217	57189-5000	J5800-009			18-24 (0.80-0.20)	1.5-2.2 (.059-.087)	3.0-3.5 (.118-.138)
50217	57190-5000	J5800-009			18-24 (0.80-0.20)	2.3-3.0 (.091-.118)	3.0-3.5 (.118-.138)
50351	57295-5000	57309-6000		57293-3000	22-28 (0.35-0.08)	1.10-1.70 (.043-.067)	2.30-2.80 (.091-.110)
50397	57316-5000	57316-6100		57316-3000	22-28 (0.35-0.08)	1.10-1.70 (.043-.067)	2.60-3.10 (.102-.122)
50398	57316-5000	57316-6000		57316-3000	22-28 (0.35-0.08)	1.10-1.70 (.043-.067)	2.60-3.10 (.102-.122)
50419	57328-5000	57316-6000		57328-3000	18-24 (0.80-0.20)	1.50-2.20 (.059-.087)	3.00-3.50 (.118-.138)
50419	57328-5100	57316-6000		57328-3000	18-24 (0.80-0.20)	2.30-3.00 (.091-.118)	3.00-3.50 (.118-.138)
50516	57317-5000	57317-6000			28-32 (0.08-0.03)	1.00 (.040) max.	
50539	57189-5000	57183-6000		57183-3000	18-24 (0.80-0.20)	1.50-2.20 (.059-.087)	3.00-3.50 (.118-.138)
50539	57190-5000	57183-6000		57183-3000	18-24 (0.80-0.20)	2.30-3.00 (.091-.118)	3.00-3.50 (.118-.138)
50597/50599	57347-5200	57347-6000		57347-3000	16-18 (1.30-0.80)	2.00-2.60 (.079-.102)	2.70-3.30 (.106-.130)
50597/50599	57347-5300	57347-6000		57347-3000	16-22 (1.30-0.35)	2.30-3.30 (.091-.130)	2.70-3.30 (.106-.130)
50597/50599	57347-5400	57347-6000		57347-3000	16-20 (1.30-0.50)	2.00-2.50 (.079-.098)	2.70-3.30 (.106-.130)
50598/50600	57347-5000	57347-6000		57347-3000	20-26 (0.50-0.12)	1.20-1.90 (.047-.075)	2.70-3.30 (.106-.130)
50598/50600	57347-5100	57347-6000		57347-3000	24-26 (0.20-0.12)	2.10-2.40 (.083-.095)	2.70-3.30 (.106-.130)
50637/50638	57355-5000	57355-6000/57355-6100			14-16 (2.00-1.30)	3.2-3.8 (.126-.150)	3.9-4.4 (.154-.173)
50641	57352-5000				26-30 (0.12-0.05)	0.50-0.90 (.020-.040)	
50752	57385-5000				22-28 (0.35-0.08)	1.1-1.7 (.043-.067)	2.0-2.5 (.079-.098)
50753	57352-5100				30-32 (0.05-0.03)	0.40-0.55 (.016-.022)	
50802	JHTR5907			JM5857A	22-28 (0.35-0.08)	1.20-1.90 (.047-.075)	2.60-3.20 (.102-.126)
50837	57391-5000			57391-3000	22-28 (0.35-0.08)	1.00-1.80 (.039-.071)	2.30-2.80 (.091-.110)
56035	57399-5000	57399-6000			22-26 (0.35-0.12)	1.2-1.7 (.047-.067)	2.3-2.8 (.091-.110)
56086				57392-3000			1.60-2.10 (.063-083)
56187		57399-6000		57411-3000	18-20 (0.80-0.50)	1.80-2.30 (.071-.091)	2.80-3.20 (.110-.126)
56265		57399-6000		57411-3000	18-20 (0.80-0.50)	1.80-2.30 (.071-.091)	2.80-3.20 (.110-.126)
59370	57404-5000				22-28 (0.35-0.08)	0.9-1.5 (.035-.059)	1.6-2.1 (.063-.083)
70021-0004/0006	57037-5000	57033-6000	57033-6000		24-30 (0.20-0.05)	1.2 (.047) max.	3.0-3.5 (.118-.138)
70021-0021/0023	57036-5000	57033-6000	57033-6000		22-24 (0.35-0.20)	1.6 (.063) max.	3.0-3.5 (.118-.138)
70058-0004	57036-5000	57033-6000	57033-6000		24-28 (0.20-0.08)	1.15 (.045) max.	
70058-0006	57037-5000	57093-6000	57033-6000		24-28 (0.20-0.08)	1.15 (.045) max.	
70058-0022/0024	57036-5000	57033-6000	57033-6000		22-24 (0.35-0.20)	1.6 (.063) max.	3.0-3.5 (.118-.138)
87115/87116-XXX0	57206-5000						2.8-3.3 (.110-.130)
87115/87116-XXX1	57206-5000						2.8-3.3 (.110-.130)

Crimp Application Tooling
Molex Japan Crimp Tooling

M211A Crimp Press

Description	Order No.	For Use With
Mini Universal Crimp Press	57275-4000	Modular Crimp Die
Transformer from 110-240V to 110V	M15T-A	Mini Universal Crimp Press

Molex Japan Crimp Tooling Cross Reference

Preferred Version in Japan—Not Available in the US

Terminal Series No.	Order No.		Modular Crimp Die	Wire Gauge AWG (mm²)	Insulation Diameter	Strip Length
	Hand Tool	Extraction Tool				
1189/1190			11-26-0064	14-20 (2.00-0.50)	1.6-4.1 (.063-.161)	3.7-4.2 (.146-.165)
1380/1381			11-26-0064	18-24 (0.80-0.20)	1.5-3.1 (.059-.122)	3.7-4.2 (.146-.165)
1433/1434			11-26-0064	24-28 (0.20-0.08)	0.8-1.5 (.031-.059)	3.7-4.2 (.146-.165)
1560/1561			11-26-0072	18-24 (0.80-0.20)	1.5-3.1 (.059-.122)	2.8-3.4 (.110-.134)
1854/1855			11-26-0072	22-28 (0.35-0.08)	1.1-1.5 (.043-.059)	2.6-3.2 (.102-.126)
1881-2			JM5866A	16-24 (1.30-0.20)	1.5-3.1 (.059-.122)	3.7-4.2 (.146-.165)
2578			11-26-0092	22-28 (0.35-0.08)	1.2-1.7 (.047-.067)	3.0-3.5 (.118-.138)
2759			11-26-0107	22-28 (0.35-0.08)	1.2-1.7 (.047-.067)	2.8-3.4 (.110-.134)
40641-A			57153-3000	18-24 (0.80-0.20)	1.3-2.5 (.051-.098)	3.0-3.5 (.118-.138)
4809C			57156-3000	22-28 (0.35-0.08)	1.2-1.7 (.047-.067)	2.6-3.2 (.102-.126)
5005/5006			11-26-0034	18-24 (0.80-0.20)	1.3-3.0 (.051-.118)	2.7-3.3 (.106-.130)
5008/5009			11-26-0034	24-28 (0.20-0.08)	1.2-2.4 (.047-.094)	2.7-3.3 (.106-.130)
5103			11-26-0023	22-28 (0.35-0.08)	1.15-1.9 (.045-.075)	2.6-3.2 (.102-.126)
5139			JM5858A	22-28 (0.35-0.08)	1.2-1.7 (.047-.067)	2.8-3.4 (.110-.134)
5159			JM5858A	22-28 (0.35-0.08)	1.2-1.7 (.047-.067)	2.8-3.4 (.110-.134)
5167			JM5868A	18-24 (0.80-0.20)	1.3-2.5 (.051-.098)	3.0-3.5 (.118-.138)
5168			JM5868A	22-28 (0.35-0.08)	1.2-1.7 (.047-.067)	3.0-3.5 (.118-.138)
5175			11-26-0090	16-22 (1.30-0.35)	1.7-3.4 (.067-.134)	3.7-4.3 (.146-.169)
5190-1			JM5865A			6.00-6.60 (.236-.260)
5190-01			11-26-0093	22-26 (0.35-0.12)	1.3-1.7 (.051-.067)	6.0-6.6 (.236-.260)
5190-01P			JM5865A			6.00-6.60 (.236-.260)
5194			11-26-0028	18 (0.80)	1.3-3.2 (.051-.126)	3.0-3.5 (.118-.138)
5194			11-26-0028	20-24 (0.50-0.20)	1.3-3.2 (.051-.126)	3.0-3.5 (.118-.138)
5225			11-26-0028	22-28 (0.35-0.08)	1.2-2.6 (.047-.102)	3.0-3.5 (.118-.138)
5241			11-26-0050	22-28 (0.35-0.08)	1.15-1.9 (.045-.075)	2.6-3.2 (.102-.126)
5263			11-26-0117	22-28 (0.35-0.08)	1.15-1.9 (.045-.075)	2.4-2.9 (.094-.114)
5378			57007-3000	24-28 (0.20-0.08)	0.9-1.5 (.035-.059)	1.7-2.3 (.067-.091)
5298			JM5998A			4.70-5.30 (.185-.209)
5298T2			JM5998A			4.70-5.30 (.185-.209)
5394			11-26-0108	22-28 (0.35-0.08)	1.2-1.9 (.047-.075)	2.1-2.7 (.083-.106)
5479			11-26-0179	26-28 (0.12-0.08)	1.2-1.5 (.047-.059)	1.2-2.0 (.047-.079)
5479PBT2			57034-3000	30-32 (0.05-0.03)	0.6-1.2 (.024-.047)	1.2-3.0 (.047-.118)
5556/5558			57022-3000	18-24 (0.80-0.20)	1.3-2.2 (.051-.087)	3.0-3.5 (.118-.138)
8980-3C			57102-3000			5.00-5.50 (.197-.217)
8980-3C1			57102-3000			5.00-5.50 (.197-.217)
8980-4C			JM5866A			3.70-4.20 (.146-.165)
8980-4C1			JM5866A			3.70-4.20 (.146-.165)
8980-6C			JM5866A			3.70-4.20 (.146-.165)
50011			57030-3000	24-30 (0.20-0.05)	0.8-1.4 (.031-.055)	1.6-2.1 (.063-.083)
50012/50013			57045-3000	24-28 (0.20-0.08)	0.92-1.15 (.036-.045)	1.7-2.3 (.067-.091)
50031	57075-5000	57105-6000		30-34 (0.05-0.02)	0.5-0.9 (.020-.035)	1.6-2.1 (.063-.083)
50034	57056-5000	57057-6000		26-30 (0.12-0.05)	0.8-1.4 (.031-.055)	1.4-1.9 (.055-.075)
50038/50039	57085-5000			AVS0.3	1.8 (.071) max.	2.0-2.5 (.079-.098)
50038/50039	57086-5000			CAVS0.5	1.8 (.071) max.	2.0-2.5 (.079-.098)
50051	57053-5000			30-33 (0.05-0.025)	0.56-0.85	1.7-2.3 (.067-.091)
50058	57068-5000	57072-6000		28-32 (0.08-0.03)	1.0 (.039) max.	1.4-1.9 (.055-.075)
50061	57070-5000	57072-6000		28-32 (0.08-0.03)	1.0 (.039) max.	1.4-1.9 (.055-.075)
50065			57071-3000	22-28 (0.35-0.08)	2.2 (.087) max.	2.4-2.9 (.094-.114)
50079			57067-3000	26-28 (0.12-0.08)	1.0 (.039) max.	1.4-1.9 (.055-.075)
50080			57069-3000	26-28 (0.12-0.08)	1.0 (.039) max.	1.4-1.9 (.055-.075)

Crimp Application Tooling
Molex Japan Crimp Tooling
Cross Reference

Terminal Series No.	Order No.		Modular Crimp Die	Wire Gauge AWG (mm²)	Insulation Diameter	Strip Length
	Hand Tool	Extraction Tool				
50083			57014-3000	24-30 (0.20-0.05)	0.8-1.6 (.031-.063)	3.0-3.5 (.118-.138)
50084			57014-3000	22-24 (0.35-0.20)	1.0-1.6 (.039-.063)	3.0-3.5 (.118-.138)
50087			57017-3000	24-30 (0.20-0.05)	0.8-1.6 (.031-.063)	3.0-3.5 (.118-.138)
50088			57017-3000	22-24 (0.35-0.20)	1.0-1.6 (.039-.063)	3.0-3.5 (.118-.138)
50089			57095-3000	22-28 (0.35-0.08)	2.2 (.087) max.	2.4-2.9 (.094-.114)
50095/50096			57096-3000	14-18 (2.00-0.80)	2.8-3.8 (.110-.150)	3.7-4.3 (.146-.169)
50097			57107-3000	20-24 (0.50-0.20)	1.3-2.1 (.051-.082)	2.5-3.0 (.098-.118)
50098			57108-3000	18-22 (0.80-0.35)	1.6-2.6 (.063-.102)	2.5-3.0 (.098-.118)
50105/50106			57110-3000	18-24 (0.80-0.20)	1.75-3.0 (.069-.118)	3.7-4.3 (.146-.169)
50118/50119			57084-3000	AVS0.3	1.5-1.9 (.059-.075)	2.0-2.5 (.079-.098)
50118/50119			57084-3000	CAVS0.5	1.5-1.9 (.059-.075)	2.0-2.5 (.079-.098)
50125			57138-3000	26-28 (0.12-0.08)	1.0 (.039) max.	1.4-1.9 (.055-.075)
50127/50128			57121-3000	20-24 (0.50-0.20)	1.15-1.87 (.045-.074)	3.7-4.3 (.146-.169)
50133			57138-3000	28-32 (0.08-0.03)	1.0 (.039) max.	1.4-1.9 (.055-.075)
50146			57145-3000		1.4-1.9 (.055-.075)	2.0-2.5 (.079-.098)
50147			57144-3000		1.4-1.9 (.055-.075)	2.0-2.5 (.079-.098)
50148			57144-3000		1.4-1.9 (.055-.075)	2.0-2.5 (.079-.098)
50156			57122-3000	AV-0.5F	2.2-2.4 (.087-.094)	2.0-2.5 (.079-.098)
50200			57030-3000	22 (0.35)	1.4 (.055) max.	1.6-2.1 (.063-.083)
50207			57182-3000		1.4-2.2 (.055-.087)	2.0-2.5 (.079-.098)
50212			57175-3000	24-30 (0.20-0.05)	0.8-1.4 (.031-.055)	1.3-1.8 (.051-.071)
50217			57183-3000	18-24 (0.80-0.20)	1.4-2.2 (.055-.087)	3.0-3.5 (.118-.138)
50351	57295-5000	57309-6000	57293-3000	22-28 (0.35-0.08)	1.10-1.70 (.043-.067)	2.30-2.80 (.091-.110)
50397	57316-5000	57316-6100	57316-3000	22-28 (0.35-0.08)	1.10-1.70 (.043-.067)	2.60-3.10 (.102-.122)
50398	57316-5000	57316-6000	57316-3000	22-28 (0.35-0.08)	1.10-1.70 (.043-.067)	2.60-3.10 (.102-.122)
50419	57328-5000	57316-6000	57328-3000	18-24 (0.80-0.20)	1.50-2.20 (.059-.087)	3.00-3.50 (.118-.138)
50419	57328-5100	57316-6000	57328-3000	18-24 (0.80-0.20)	2.30-3.00 (.091-.118)	3.00-3.50 (.118-.138)
50419			57328-3000	18-24 (0.80-0.20)		3.00-3.50 (.118-.138)
50516			57317-3000	28-32 (0.08-0.03)	1.00 (.040) max.	
50539	57189-5000	57183-6000	57183-3000			
50539	57190-5000	57183-6000	57183-3000			
50597/50599	57347-5200	57347-6000	57347-3000	16-18 (1.30-0.80)	2.00-2.60 (.079-.102)	2.70-3.30 (.106-.130)
50597/50599	57347-5300	57347-6000	57347-3000	16-22 (1.30-0.35)	2.30-3.30 (.091-.130)	2.70-3.30 (.106-.130)
50597/50599	57347-5400	57347-6000	57347-3000	16-20 (1.30-0.50)	2.00-2.50 (.079-.098)	2.70-3.30 (.106-.130)
50598/50600	57347-5000	57347-6000	57347-3000	20-26 (0.50-0.12)	1.20-1.90 (.047-.075)	2.70-3.30 (.106-.130)
50598/50600	57347-5100	57347-6000	57347-3000	24-26 (0.20-0.12)	2.10-2.40 (.083-.095)	2.70-3.30 (.106-.130)
50641			57352-3000	26-30 (0.12-0.05)	0.50-0.90 (.020-.040)	
50752			57385-3000	22-28 (0.35-0.08)	1.15-1.80 (.045-.071)	2.0-2.5 (.079-.098)
50753			57352-3000	30-32 (0.05-0.03)	0.4-0.55 (.016-.022)	1.3-1.7 (.051-.066)
50802			JM5857A	22-28 (0.35-0.08)	1.15-1.9 (.045-.075)	2.60-3.20 (.102-.126)
50802	JHTR5907		JM5857A	22-28 (0.35-0.08)	1.20-1.90 (.047-.075)	2.60-3.20 (.102-.126)
50837	57391-5000		57391-3000	22-28 (0.35-0.08)	1.00-1.80 (.039-.071)	2.30-2.80 (.091-.110)
50837			57391-3000	22-28 (0.35-0.08)	1.15-1.80 (.045-.071)	2.30-2.80 (.091-.110)
56035			57399-3000	22-26 (0.35-0.12)	1.25-1.70 (.049-.067)	2.30-2.80 (.091-.110)
56086			57392-3000			1.60-2.10 (.063-083)
56187		57399-6000	57411-3000	18-20 (0.80-0.50)	1.80-2.30 (.071-.091)	2.80-3.20 (.110-.126)
56265		57399-6000	57411-3000	18-20 (0.80-0.50)	1.80-2.30 (.071-.091)	2.80-3.20 (.110-.126)
59370			57404-3000	22-28 (0.35-0.08)	1.5 (.059) max.	1.6-2.1 (.063-.083)
70021-0004/0006			57017-3000	24-30 (0.20-0.05)	0.8-1.6 (.031-.063)	3.0-3.5 (.118-.138)
70021-0021/0023			57017-3000	22-24 (0.35-0.20)	1.0-1.6 (.039-.063)	3.0-3.5 (.118-.138)
70058-0004/0006			57014-3000	24-30 (0.20-0.05)	0.8-1.6 (.031-.063)	3.0-3.5 (.118-.138)
70058-0022/0024			57014-3000	22-24 (0.35-0.20)	1.0-1.6 (.039-.063)	3.0-3.5 (.118-.138)
87003			57090-3000	18-22 (0.80-0.35)	1.7-3.1 (.067-.122)	4.2-4.8 (.165-.189)
87039			57091-3000	24-28 (0.20-0.08)	1.2-1.8 (.047-.071)	2.3-2.9 (.091-.114)
87115/87116-XXX0			57151-3000	24-28 (0.20-0.08)	0.9-1.2 (.035-.047)	2.8-3.3 (.110-.130)
87115/87116-XXX1			57173-3000	28-32 (0.08-0.03)	0.5-0.9 (.020-.035)	2.8-3.3 (.110-.130)
87421			57294-3000	26 (0.12)	1.00-1.30 (.040-.051)	
90119-0111			57198-3000	22-24 (0.35-0.20)	1.02-1.47 (.040-.058)	3.0-3.5 (.118-.138)

Application Tooling

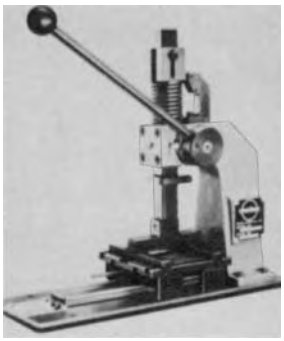
J 5930 Series Press and Cutter

Features

Manually-operated, ratchet type
QF-50™

Specifications

Weight: Bench—7.80kg (17.2 lb)
Space: 153 by 305mm (6 by 12")
Height: 457mm (18")





Preferred Version in the Far East—Not Available in the US

Description	Order No.	Type	For Use With
Press Frame	11-26-0075	Press	All equipment listed in press section
Base Assembly	11-26-0081		Press Frame
Kit QF Female	11-26-0082		Connector 5320
Kit QF 2.54mm (.100") Grid	11-26-0083		Connector 5360
Press Frame	11-26-0075	Cutter	All equipment listed in cutter section
Cutter	11-26-0078		Press Frame

Wire Gauge Classifications*

AWG	(Stranding/AWG)	Diameter	Circular Mils	Area
4/0	(2107/30)	13.26 (0.522)	210700	106.764 (0.16548)
3/0	(1672/30)	11.79 (0.464)	167200	84.722 (0.13132)
2/0	(1330/30)	10.52 (0.414)	133000	67.392 (0.10446)
1/0	(1045/30)	9.35 (0.368)	104500	52.951 (0.08207)
2	(665/30)	7.42 (0.292)	66500	33.696 (0.05223)
4	(420/30)	5.89 (0.232)	42000	21.282 (0.03299)
6	(266/30)	4.67 (0.184)	26600	13.478 (0.02089)
8	(1/30)	3.25 (0.128)	16384	8.302 (0.01287)
	(19/21)	3.68 (0.145)	15433	7.820 (0.01212)
	(49/25)	3.73 (0.147)	15700	7.955 (0.01233)
	(133/29)		16983	8.605 (0.01334)
	(168/32)		16800	8.513 (0.01319)
	(665/36)		16625	8.424 (0.01306)
10	(1)	2.59 (0.102)	10384	5.261 (0.00816)
	(37/26)	2.92 (0.115)	9354	4.740 (0.00735)
	(49/27)	2.95 (0.116)	9880	5.006 (0.00776)
	(105/30)		10500	5.320 (0.00825)
12	(1)	2.06 (0.081)	6529	3.308 (0.00513)
	(7/20)	2.44 (0.096)	7168	3.632 (0.00563)
	(19/25)	2.36 (0.093)	6088	3.085 (0.00478)
	(37/28)	2.29 (0.090)	5874	2.976 (0.00461)
	(65/30)	2.41 (0.095)	6500	3.294 (0.00511)
	(165/34)		6549	3.318 (0.00514)
14	(1)	1.63 (0.064)	4109	2.082 (0.00323)
	(7/22)	1.85 (0.073)	4481	2.270 (0.00352)
	(19/27)		3831	1.941 (0.00301)
	(41/30)		4100	2.078 (0.00322)
	(105/34)		4167	2.112 (0.00327)
16	(1)	1.29 (0.051)	2581	1.308 (0.00203)
	(7/24)	1.52 (0.060)	2828	1.433 (0.00222)
	(19/29)	1.47 (0.058)	2426	1.229 (0.00191)
	(26/30)	1.50 (0.059)	2600	1.317 (0.00204)
	(65/34)		2580	1.307 (0.00203)
	(105/36)	1.47 (0.058)	2625	1.330 (0.00206)
18	(1)	1.02 (0.040)	1624	0.823 (0.00128)
	(7/26)	1.22 (0.048)	1770	0.897 (0.00139)
	(16/30)	1.19 (0.047)	1600	0.811 (0.00126)
	(19/30)	1.24 (0.049)	1900	0.963 (0.00149)
	(41/34)	1.19 (0.047)	1627	0.825 (0.00128)
	(65/36)		1625	

AWG	(Stranding/AWG)	Diameter	Circular Mils	Area
20	(1)	0.81 (0.032)	1024	0.5189 (0.00080)
	(7/28)	0.97 (0.038)	1111	0.5631 (0.000873)
	(10/30)	0.89 (0.035)	1000	0.5067 (0.000785)
	(19/32)	0.94 (0.037)	1216	0.6162 (0.000955)
	(26/34)	0.91 (0.036)	1032	0.5229 (0.000810)
	(41/36)		1025	0.5194 (0.000805)
22	(1)	0.64 (0.025)	640.1	0.3243 (0.000503)
	(7/30)	0.76 (0.030)	700.0	0.3547 (0.000550)
	(19/34)	0.79 (0.031)	754.1	0.3821 (0.000592)
	(26/36)	0.76 (0.030)	650.0	0.3294 (0.000511)
24	(1)	0.51 (0.020)	404.0	0.2047 (0.000317)
	(7/32)	0.58 (0.023)	442.4	0.2242 (0.000347)
	(10/34)	0.61 (0.024)	396.9	0.2011 (0.000312)
	(19/36)	0.58 (0.023)	475.0	0.2407 (0.000373)
	(41/40)		404.2	0.2048 (0.000317)
26	(1)	0.40 (0.016)	252.8	0.1281 (0.000199)
	(7/34)	0.53 (0.021)	277.8	0.1408 (0.000218)
	(10/36)	0.51 (0.020)	250.0	0.1267 (0.000196)
	(19/38)	0.48 (0.019)	298.0	0.1510 (0.000234)
28	(1)	0.32 (0.013)	158.8	0.0804 (0.000125)
	(7/36)	0.33 (0.013)	175.0	0.0887 (0.000137)
	(19/40)	0.38 (0.015)	187.3	0.0949 (0.000147)
30	(1)	0.25 (0.010)	100.0	0.0507 (0.000079)
	(7/38)	0.30 (0.012)	109.8	0.0556 (0.000086)
	(19/42)		117.8	0.0597 (0.000093)
32	(1)	0.20 (0.008)	63.20	0.0320 (0.000050)
	(7/40)		67.27	0.0341 (0.000053)
	(19/44)	0.23 (0.009)	76.00	0.0385 (0.000060)
34	(1)	0.160 (0.0063)	39.69	0.0201 (0.000031)
	(7/42)	0.191 (0.0075)	43.40	0.0220 (0.000034)
36	(1)	0.127 (0.0050)	25.00	0.0127 (0.000020)
	(7/44)	0.152 (0.0060)	27.44	0.0139 (********)
38	(1)	0.102 (0.0040)	15.68	0.0079 (********)
40		0.079 (0.0031)	9.86	0.0050 (********)
42		0.064 (0.0025)	6.20	0.0031 (********)
44		0.051 (0.0020)	3.92	0.0020 (********)
46		0.041 (0.0016)	2.46	0.0012 (********)
48		0.030 (0.0012)	1.54	0.0008 (********)
50		0.025 (0.0010)	0.98	0.0005 (********)

*Classifications of insulated round Copper conductors