



The Comus Group of companies



COMUS
International

New Jersey (New York)



COMUS
Europe Ltd

formerly

ASSEMtech
EUROPE

Colchester Area Essex



COMUS
Belgium BVBA



Tongeren Belgium



Boston Area USA



COMUS
Technology BV

formerly



Heerlen Holland



Switching
Technologies
Günther



COMUS
Electronics & Technologies
INDIA Private Limited

Chennai India



Company History

- Founded in June of **1978** as a manufacturer of glass mercury tilt switches.
- **1988** formation of Assemtech Europe for Sensor manufacturing and distribution.
- **1991** acquisition of Reed Switch and Reed Sensor Manufacturing of Günther Germany and STG in Chennai, India.
- **1993** acquisition of mercury switch and relay manufacturing of CP Clare Belgium.
- **2009** acquisition of Reed Switch Manufacturing of Coto Technology - Netherlands.
- **2014** acquisition of Computer Components Inc. a Relay manufacturer in the United States.

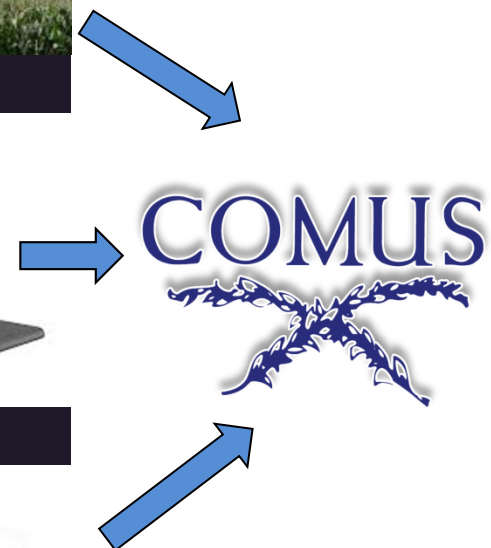
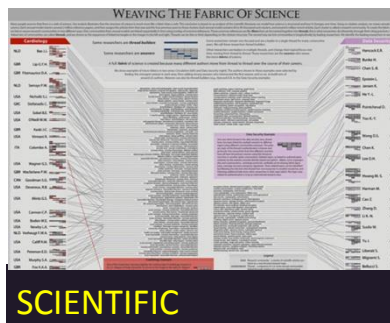
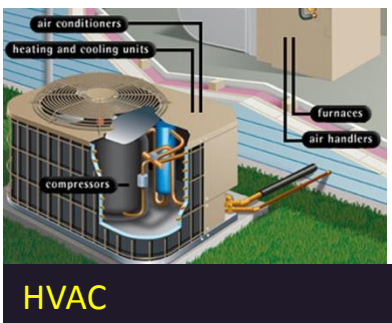
Company Overview (Present Day)

- The Comus Group of Companies today exists with 10 active product lines, in 6 locations spanning the globe and over 400 employees.
- Sales Worldwide exceed 30 million USD.
- Continual double digit increase in market share on new lines every year as well as legacy lines.



The Comus Group of companies

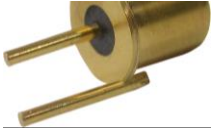
Main Market Segments





TILT & TIP-OVER SWITCHES

- Level control
- Home appliances
- Security systems
- Toys and games
- Water treatment equipment
- Portable lamps etc.



MOVEMENT / VIBRATION SWITCHES

- Security systems
- Man-down alarms
- Portable equipment
- Power off for conserving energy etc.



SHOCK / ACCELERATION SWITCHES

- Process control systems
- Safety installations
- Measure seismic activity
- Measure vibration & inclination etc.



SMART SENSORS

- Medical positioning
- Engineering equipment
- Vehicle leveling
- Closed loop control systems
- Alarm control systems etc.



REED SWITCHES

- Electronic communications
- Domestic appliances
- Automotive industry
- Medical electronics
- Toys etc.



PROXIMITY SWITCHES

- Paper machines
- Mobile phones
- Roller coasters
- Conveyor systems
- Security systems etc.



REED RELAYS

- Radar communication
- Wireless communication
- Electronic modules
- Testing equipment etc.



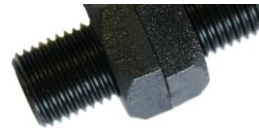
FLOAT SWITCHES

- Sumps
- Pump control systems
- Irrigation systems
- Liquid leveling etc.



ALARM & SECURITY SWITCHES

- Door frames
- Shuttered loading doors
- Windows etc.



MAGNETS

- Loudspeakers
- Meters
- Motors
- Relays
- Toys



SOLID STATE RELAYS

- Motor and heating control
- Security systems
- Traffic control system
- Automatic doors
- Elevators, escalators etc.



PRESSURE SWITCHES

- Weather implementation
- Aircraft
- Vehicle sensing etc.



OPTICAL LEVEL SWITCHES

- Food and beverage production
- Fluid control
- Tank level monitoring
- Pump protection etc.



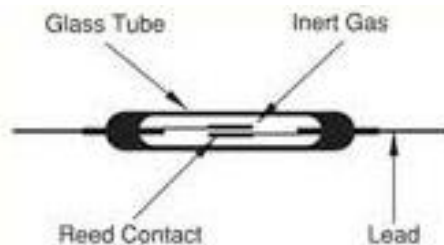
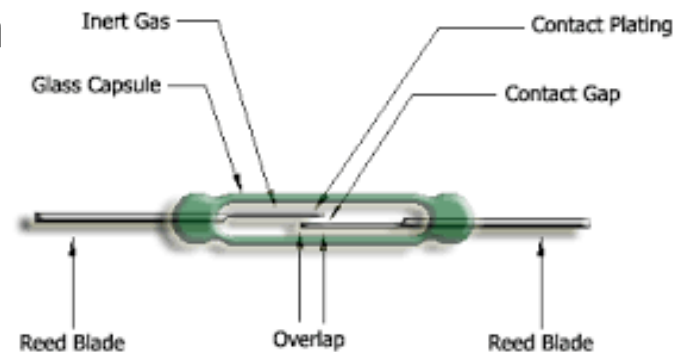
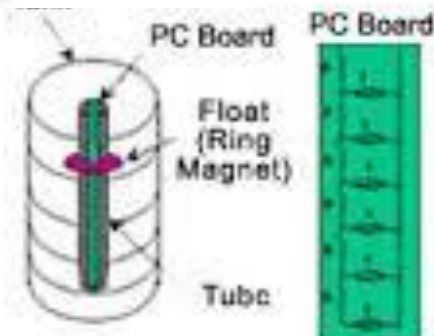
ULTRASONIC SENSORS

- Conveyor system
- Detection of transparent objects
- Security systems
- Activate motorized doors etc.

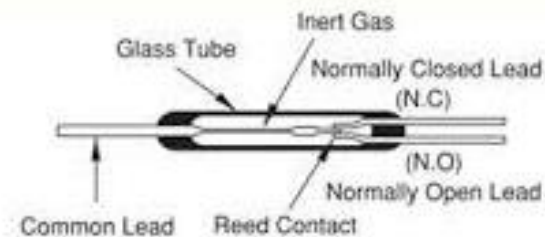
Comus Reed Switch



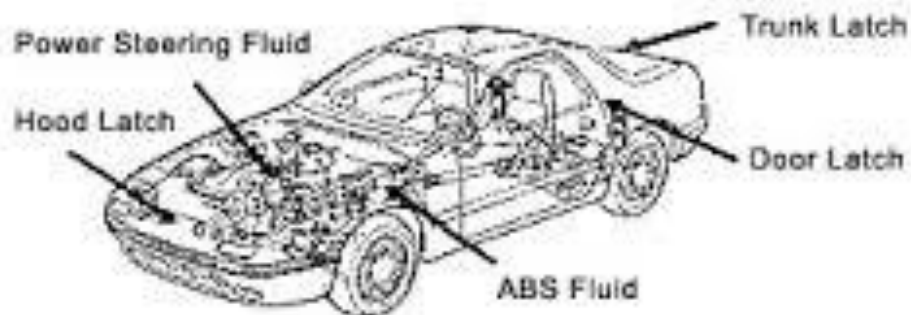
Surface Mount
Reeds



Make Type



Changeover Type



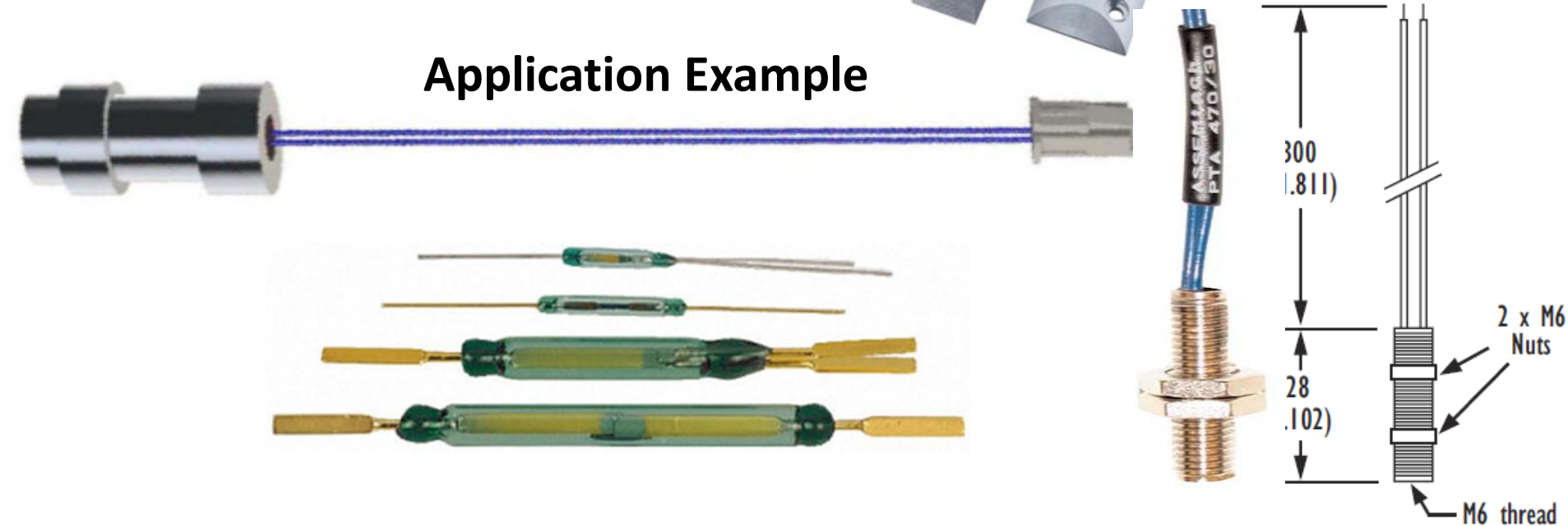
Magnets



Magnetic Reed Proximity Switch Series



Application Example





The Comus Group of companies

Product Solutions

Reed Switch Applications

Tilt Switch Applications





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Product Solutions

Reed Switch Applications

Tilt Switch Applications



Reed Switch and Reed Relays



“Unique Selling Point”

Comus is the manufacturer of the reed switch used in the Reed Relay both in Comus Reed Relays and most Reed Relay Manufacturers



Why is a reed relay used in a switching circuit?

"The Simple Explanation"

The reed switch is composed of two overlapping ferromagnetic blades (called reeds) hermetically sealed within a glass capsule that is filled with an inert gas.

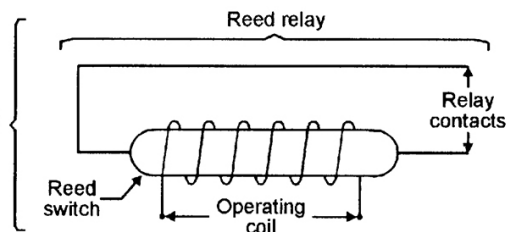
A reed relay is a type of relay that uses an electromagnet to control one or more reed switches. The electromagnet acts directly on the magnetic blades without requiring an armature to move them.

When the current is switched off, the contacts open again, switching the circuit off.

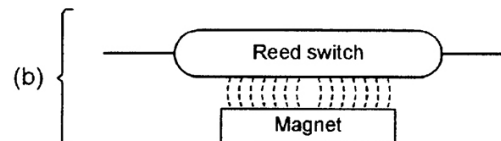
A useful property of relays is that the circuit powering the coil is completely separate from the circuit switched on by the relay.

For this reason relays are used where a safe low-voltage circuit controls a high-voltage circuit.

The Reed Relay using a reed switch (a)



The Reed Switch and Magnet (b)

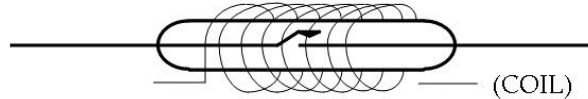


Contact Forms

Form-A

Single pole-Single throw

Normally open (SPST N.O.)



Form-B

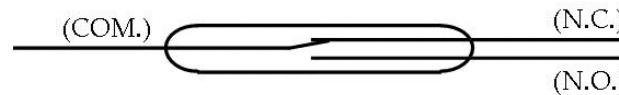
Single pole-Single throw

Normally closed (SPST N.C.)



Form-C

Single pole-Double throw (SPDT)



Contact Materials

Ruthenium (Ru)

Provides exceptional performance when switching dry loads.

Rhodium (Rh)

Better suited for “high load” switching.

Iridium (Ir)

Higher melting point for use in “high load” switching

Mercury (Hg)

Allows “bounce free” contact closure.

Tungsten (W)

High power for “hot switching” applications.

Steel Sensor SRA-SP Series

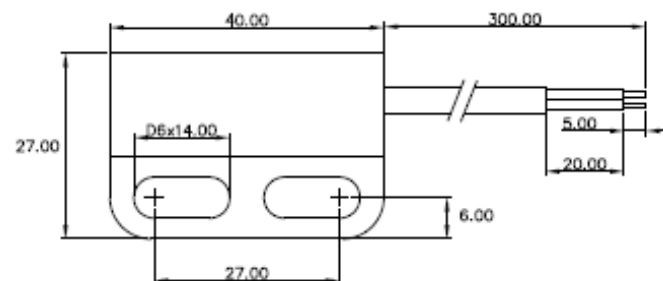
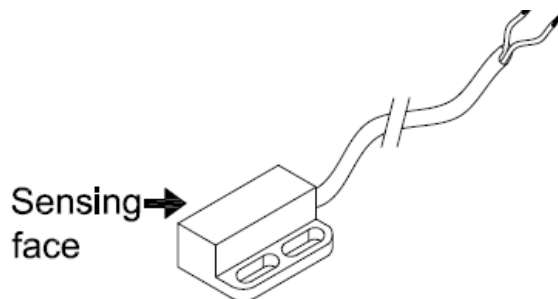
- Actuation from any side gives full positioning flexibility.
- No magnet needed for activation, gives a greatly reduced footprint.
- Hermetically sealed contacts for greater reliability.
- Adjustable trip point due to Mounting slots built within body moulding.
- Custom moulding - Comus will be pleased to discuss custom mouldings to suit your application.



Suitable Applications:

- Shutter Doors, Gate Applications, Interlock Sensing, Position Control, Limit Sensing

MPN	Part Number	Description	Each £
S1987	SRA SP-001	Front Sensing Face	3.72
S1987B	SRA SP-002	Bottom Sensing Face	3.72
S1987C	SRA SP-003	Top Sensing Face	3.72
S1980	SRA SP-004	Front Sensing Face Single Screw Fixing	4.32
S1980C	SRA SP-006	Top Sensing Face Single Screw Fixing	4.32



Smart Sensor Series

- AC Voltage Power Sensors
- DC Voltage Power Sensors
- Precision Acceleration Sensors
- Precision Angle Sensors
- Precision Shock Sensors
- Precision Motion Sensors
- Custom Products



Smart Sensor Series

Comus SMT Assembly

SMT ASSEMBLY

Comus International now offers PCB design and packaged solutions to our customers. We have a leading team of engineers and technicians for the highest quality of manufacturing and assembly. We are proud to offer quick turnarounds and rapid prototyping for customers who require an expedited flow from design inception to conceptual testing and finally production scaling.



Comus Worldwide Locations



Comus International
454 Allwood Road,
Clifton, New Jersey 07012
United States



Computer Components, Inc.
18-B Kripes Rd.
P.O. Box 1378
East Granby, Connecticut 06026
United States



Comus Europe Ltd
Rice Bridge Industrial Estate
Unit 7, Thorpe le Soken
Essex CO16 0HH
United Kingdom



Switching Technologies Gunther
B-9, B-10, & C-1
Special Economic Zone (MEPZ)
Kaddaperi, Tambaran
Chennai 600045
India



Comus Relays & Sensors
37 Thurber Boulevard
Suite 102
Smithfield, Rhode Island 02917
United States



Comus International BVBA
Overhaamlaan 40,
3700 Tongeren
Belgium



Comus Technology BV
Jan Camperstraat 11
6416 SG Heerlen
The Netherlands



Comus Electronics & Technologies India LTD
No. 31/33 Anjugam Nagar, 2nd Street
Ashok Nagar, Jaferkhanpet
Chennai 600083
Tamil Nadu, India

Phone: (1) 401 830 2100

www.comusrelay.com

sales@comusrelay.com

