

TILT / TIP-OVER SWITCHES



- Ball Contact
- Opto
- Micro Miniature
- Non Mercury Contacts
- Surface Mount
- Electronic Tilt Sensor

The tilt and tip-over switches and motion sensors are available as mercury metal and our patented non-mercury metal (patents #5.209.343 and #5.332.876.). Tilt switches are used to sense movement (tilt) of a device above and below a horizontal axis. Some applications include: level controls, appliances, security alarm systems, toys and games, float switches and water treatment equipment, portable lamps, PC anti theft devices, vending-machine alarms and machinery security systems.



LINE OF PRODUCTS

REED SWITCHES



- Dry Reed Switches
- Coto Technology Reed Switches
- Mercury Reed Switches
- High Voltage Reed Switches
- High Power Switch Modules

A reed switch consists of two ferromagnetic and specially shaped contact blades (reeds) positioned in a hermetically sealed glass tube in a protective atmosphere. The plated contact surfaces are isolated from the outside environment, which protects the contacts from contamination. Reed switches are available as form A (normally open), form C (change-over), and form B (normally closed). They are operated using a magnetic field generated by either a permanent magnet or current-carrying coil. Applications include sensors, relays, pulse counters and security devices.

PROXIMITY SWITCHES



- Solid State Hall or GMR Type
- Greater Switching Distance
- LED to Show Switch State
- Can be integrated to High Loads
- Higher Accuracy and Repeatability

We manufacture a wide range of proximity switches that use either reed based, Hall effect or GMR technology. A reed based switch is activated by a magnetic field pulling the contacts either apart or together. Hall effect and GMR switches use electronic sensors and require a power supply to operate. The benefit of an Electronic proximity switch is that an LED can be fitted to show the state of the switch. These switches are very sensitive. They can detect a ferrous metal from greater distances than reed based switches.

REED RELAYS

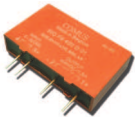


- Dry Reed Relays
- Mercury Wetted Relays
- High Voltage Reed Relays

A Reed relay consists of a reed switch and coil fitting into a housing which could be plastic, metal or moulded. Reed relays generally have a faster response time than electro-mechanical relays, lower coil consumption and are smaller in size. Furthermore, the switch is sealed in a dry inert atmosphere preventing the ingress of contaminants.

High voltage relays have outstanding performance in insulation and stand-off voltage. Energizing the coil operates a reed switch causing the contacts to open or close.

SOLID STATE RELAYS



- Din-Rail Modules
- Input/Output Modules
- Module Boards
- Heatsinks
- Thermal Pads - TPQ2

Solid State Relays (SSR) manufactured by the Comus Group of companies are sold around the world. The advantage of having no moving parts, means that solid state relays have an almost unlimited life expectancy when compared with electromechanical relays. With no mechanical parts there is no contact bounce, no spark and no mechanical wear making solid state relay the natural choice in working environments where these features are important.

SHOCK / ACCELERATION SENSORS



- Rohs Compliant
- Detectable Range from 1g-25g's
- Hermetically Sealed for Long Life
- Small Size

Conceptually, an acceleration sensor behaves similarly as a tilt switch. When the sensor experiences acceleration the unit registers a change of state. Our acceleration sensors can be used to measure vibration on cars, machines, buildings, process control systems and safety installations. They can also be used to measure seismic activity, inclination, machine vibration, as well as dynamic distances.

ALARM & SECURITY SWITCHES



- Recessed Mounted
- Roll Ball & Dome
- Plunger & Tamperproof
- Metal Surface Mounted
- Magnets
- Surface Mounted

The new range of alarm and security switches are a cost effective solution for your security needs with an extensive product range that includes: recessed cylindrical contact switches that can be easily installed into door frames. There are robust Aluminium switches for shuttered loading doors or safety guards. Also, adjustable plunger switches and tamperproof draw switches.

PRESSURE SWITCHES



- Brass Plated
- Zinc Plated
- Stainless Steel
- 9 Thread Sizes
- Form A, Form B, and Changeover

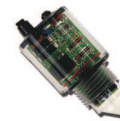
Pressure switches are a vital part of many systems for example Air compressor switching, Hydraulic switching of machinery, gas leak detection and medical equipment. With a mechanical life of at least 1.5 million cycles our switches out perform all others and can be relied on for many years. They come in a variety of thread sizes, pressure ranges and connection types with either a factory set pressure or field adjustable and we offer full customization to ease integration into your specific product.

Comus International is dedicated to providing quality solutions for your switching and sensing applications.

Providing engineering and technical support for over 30 years.

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OPTICAL LEVEL SWITCHES



- IP68 Ingress Protection
- Led Status Light
- Food Grade Stainless Version
- Operational Temperature up to 125°C
- 2 Metre Cable as Standard

Optical switches are the best choice for liquid level detection. They work by emitting a beam of infrared light within a prism and detecting the reflection of the light. When fluid covers the prism there is a change in the amount of light received and this triggers the switch. The optical switch has no moving parts and the on board electronics are completely sealed. These switches are ideal for tank applications where high pressure water is used for cleaning. Optical switches out perform conventional float switches in these applications.

FLOAT SWITCHES



- Float Switches Plastic
- Float Switches Metal
- Float Switches Heavy Duty
- Switch Modules

Float switches are designed to fit into tanks or reservoirs containing fluids. They are used to monitor liquid levels by opening or closing when a desired action point is reached. They are operated by a magnet fitted into the float assembly and a Reed Switch fitted into the stem of the float body. A variety of types are available using mercury and non-mercury tilt switches and, also, permanent magnets and reed switches. Common applications include sumps, pump-control systems, bilge pumps, below ground vaults and irrigation systems.

SMART SENSORS



- 100% Customized for customer's specific needs
- Rapid Prototyping Available
- Fully Programmable
- Standard & Custom Packages Available

A smart sensor has multiple sensors and multiple processing techniques to obtain and transmit more information than one could achieve from independent sensors. Smart sensors are extremely universal. They could be used in anything from consumer products to the automotive industry. Here at Comus International we customize our products to your specification. Whether it's changing reaction time, g-force, or tilt control, our line of programmable sensors can give you the versatility needed for your application.

MAGNETS



- Bare
- Cased
- Cased (Economy)

We have a vast range of magnets available from low cost Ferrite magnets to advanced Neodymium based magnets. Neodymium have a strong polarized magnetic field and a usable temperature of up to 130°C. Because Neodymium magnets have low corrosion resistance our magnets are Bright Nickel plated, we can also offer Zinc and Tin plating and powder coating in various colours. For temperatures up to 550°C we can supply Alnico and Alcomax magnets that have a good corrosion resistance and can be cast into more complex shapes than other magnets.

MOVEMENT / VIBRATION SENSORS



- Mercury Contacts
- Rohs Compliant
- Adjustable Sensitivity
- Small Size
- Robust Construction

Motion sensors are very similar in design to tilt switches; in fact, some tilt switches are used as motion sensors. The sensor will be in one condition (open or closed) at rest. When it is subjected to motion it will continually change state as long as it remains in motion. Some common applications include: anti-theft devices, man-down alarms to detect non motion, smart appliances to turn off power when not in use and portable equipment to do the same.

The COMUS



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