



T1-AB-JS



Mechanical and Electrical Specifications

Poles and Circuits: SPST (ON/OFF)
 Max Current: 0.25 A Resistive
 Max Voltage: 30VDC
 Max Power: 0.25 W Resistive
 Mechanical Life: 1 million operations (Typical)
 Angles of Operation: ON= 180° (+/- 4°)
 OFF= 180°(+/- 4°)

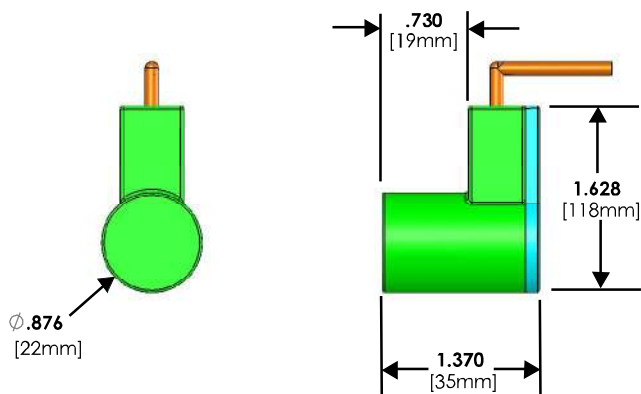
Materials

Housing: ABS
Wire Leads: JACKETED 22/2 ASG 0.11" OD x12"

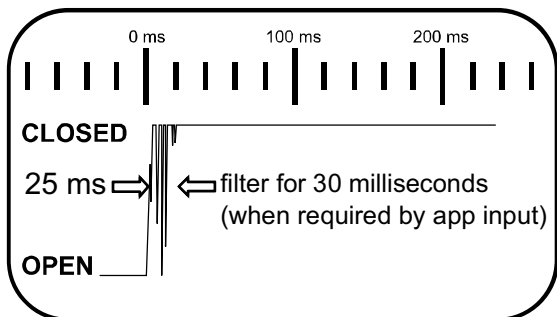
Environmental Specifications

Operating Temperature Range:
 -40°F/-40°C to 185°F/85°C
Humidity: N/A (Sealed Construction)
Magnet Field: Performs normally in weak or absent magnetic fields. Operation is not affected by ferrous environments.

Dimensions



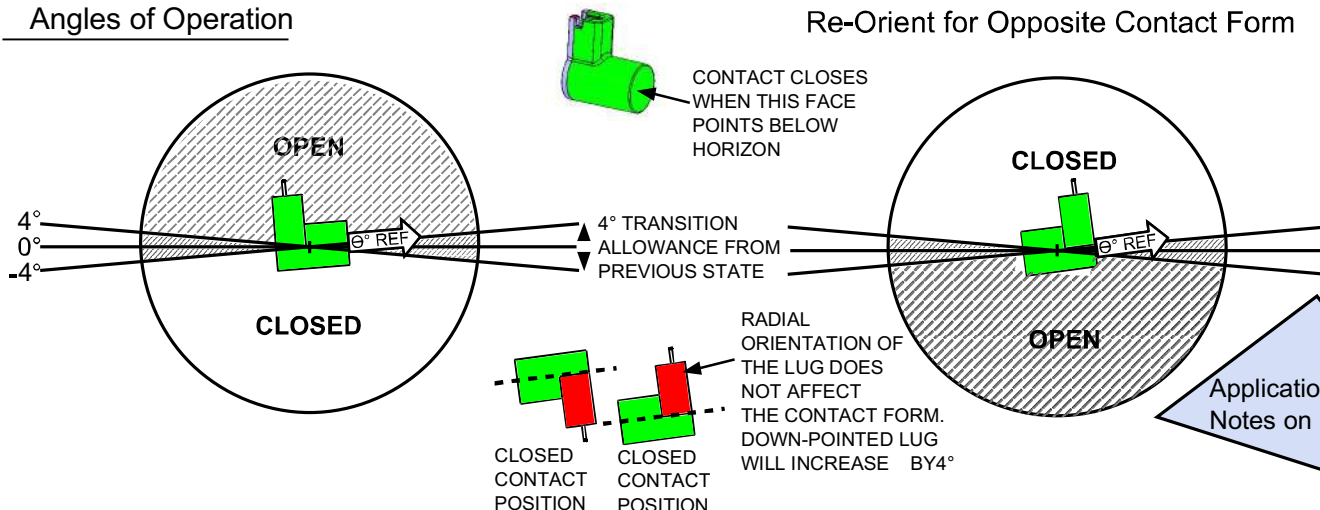
Signal Debounce



Features

1. RoHS Compliant
2. Non-Mercury Switch
3. Contact Form B or Form A
4. Industrial Grade
5. No standby power consumption
6. Precision switching range
7. Hysteresis <10 Degrees (included angle for on/off)
8. Chemically Inert
9. Sealed from atmosphere and water
10. Magnetic switching improves vibratory contact stability over non-mercury alternates

Angles of Operation



Re-Orient for Opposite Contact Form

Ready to install "as-is" for industrial environments

Mounting

- Grip the 7/8" diameter by using a clamp:
- P-Clamp
 - Pipe Mounting/Routing Clamp
 - Rubber Bushing in a panel or plate
 - Vibration-Damping Clamp (or clamping U-Bolt) for applications with excessive vibration
- Universal mounting bracket(s) sold separately (p/n:1608)

Mounting Site

Mounting the switch close to the center of rotation will provide the most responsive reading. Mounting the switch far from the center of rotation will increase undesired centrifugal effects on the switch in quick-moving applications.

Debounce Techniques

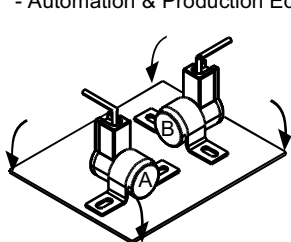
Some applications may require contact debounce filtering, necessary for coping with the contact bounce of nearly any mechanical switch or pushbutton. For digital inputs, a debounce filter may be applied via software programming or by using a hardware low-pass filter. Please check your controller documentation; debounce filtering may already be available as a default. For analog applications, a hardware filter can be included in the circuit. Many detailed resources can be found online by searching using terms: CONTACT DEBOUNCE FILTER CIRCUIT

Application Notes

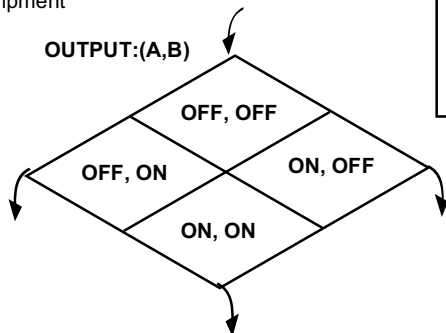
1. Magnasphere's tilt sensor is a switch, which provides great potential for power savings to wireless devices and stand-by systems.
2. This switch is constructed to be install-ready for industrial and outdoor equipment.
3. Any angle of tilt can be sensed by simply mounting the switch's axis to the desired angle. **
4. Bidirectional tilt sensing can be achieved using two switches on the same circuit.
5. Control loads above the maximum ratings by using a diode-protected or solid-state relay.
6. Tilt switch should be biased above or below the horizontal plane by at least 4 degrees. **

Ideal Uses Include:

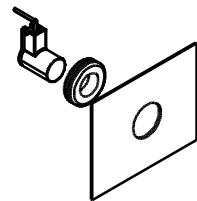
- Aerial Lifts and Aerial Booms
- Powered Access Ramps and Lifts
- Ports, Hatches, Industrial & Overhead Doors
- Appliance and Equipment Tip-Over
- Agricultural and Road Equipment Extensions
- Vehicle Trunk & Hood
- ATMs & Vending Machines
- Generators
- Safety Shutoff
- Automation & Production Equipment



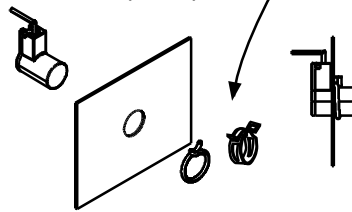
**DIGITAL QUADRANT
TILT SENSING**



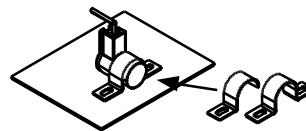
PANEL MOUNT BY GROMMET



PANEL MOUNT BY SPRING (HOSE) CLIP



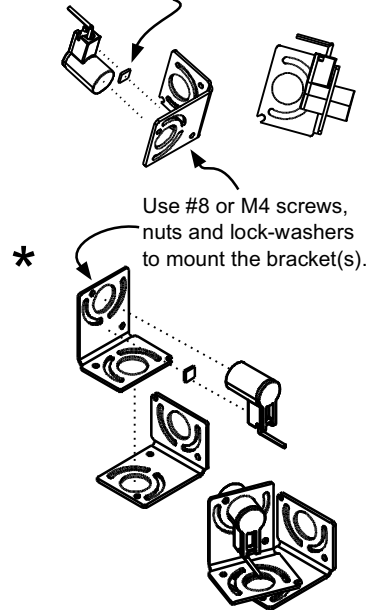
MOUNT BY U-CLAMP OR P-CLAMP



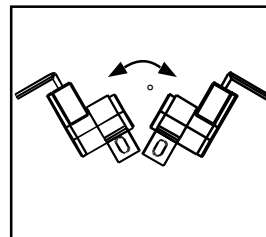
UNIVERSAL BRACKET(s) - P/N: 1608 (sold separately)

For complex mounting scenarios use universal brackets (p/n: 1608 sold separately). * Two brackets can be used to achieve rotation in 3 axes, to nearly any compound angle.

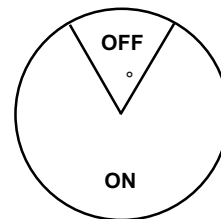
- Tilt switch should be mounted using:
1. Panel Mount Grommet
 2. Spring (Hose) Clip
 3. Weather-Proof Double Sided Tape



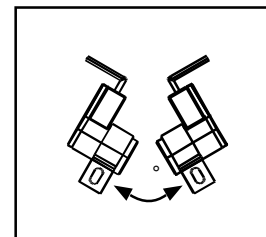
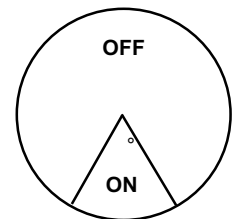
Use #8 or M4 screws, nuts and lock-washers to mount the bracket(s).



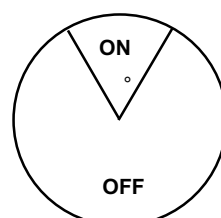
**2 SWITCHES
IN PARALLEL**



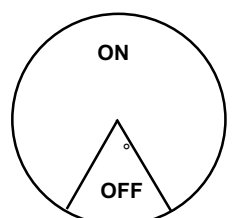
**2 SWITCHES
IN SERIES**



**2 SWITCHES
IN SERIES**



**2 SWITCHES
IN PARALLEL**



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