

# MPSR Series

## Ruggedized Magnetic Proximity Sensors



### Description

The MPSR series are ruggedized magnetic proximity sensors, perfect for automotive sensors and indicators, industrial sensors, anti-tampering and other security, and factory automation equipment. The MPSR series sensor and magnet are both sealed in a tough aluminium housing combined with stainless steel wire sleeves, protecting them from the harsh environments they're commonly used in, whether it be from oil, water, grease, or volatile chemicals and gases. Manufactured for a quick and easy installation, the MPSR series also have a long lifecycle – lasting for 2 million actions and a robust 30V 3W rating.

### Features & Benefits

- Long life—2M operations
- Sealed contacts
- Quality construction
- Quick and easy installation
- IP69 rating
- Form C SPDT contacts

### Applications

- Automotive sensors and indicators
- Factory automation equipment
- Server / storage
- Security, alarms for windows
- Industrial sensors

### Specifications

<b>Contact Ratings</b>	200 mA @ 3W, 15 VDC
<b>Contact Resistance</b>	300 m Ω max. initial

### Electrical Characteristics

<b>Dielectric Strength</b>	150V DC min.
<b>Electrical Circuit</b>	SPDT NO/NC (Contact Form C). Reed switch normally open contact opens when magnet is removed from proximity. Normally open contacts are held closed when magnet is within actuation range.
<b>Operating Temperature</b>	-40°C to 80°C
<b>Operating Distance/Alignment</b>	Operate (pull-in or make) points are nominal values with ± 10% tolerance. Release points are 110% to 150% of the operating points.
<b>Mechanical &amp; Electrical Life</b>	2 million operations
<b>Packaging</b>	Bulk packaging, 1 switch and magnet pairs per package.

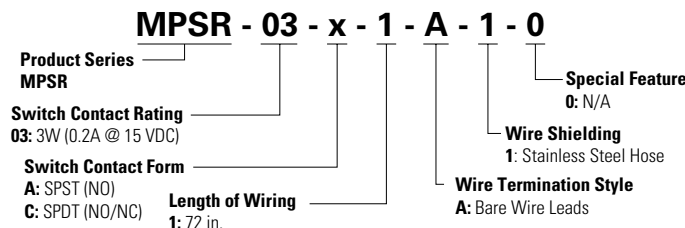
### Materials

<b>Housing/Space/Cover</b>	Aluminum, black
<b>Reed Switch</b>	Rhodium coated reed contacts in hermetically sealed, nitrogen filled glass capsule. Used in closed loop circuits.
<b>Wire Leads</b>	UL 1061/ UL1007 / UL2468 All are 18 AWG wire: stranded, made of copper or aluminum; Length: 2 meters with ends stripped; Jacket: Stainless steel.
<b>Potting (around wires)</b>	Epoxy
<b>Magnets</b>	NdFeB

**Notes:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

### Ordering Number

Our easy build-a-switch concept allows you to mix and match options to create the switch you need. To order, select desired option from each category and place it in the appropriate box.



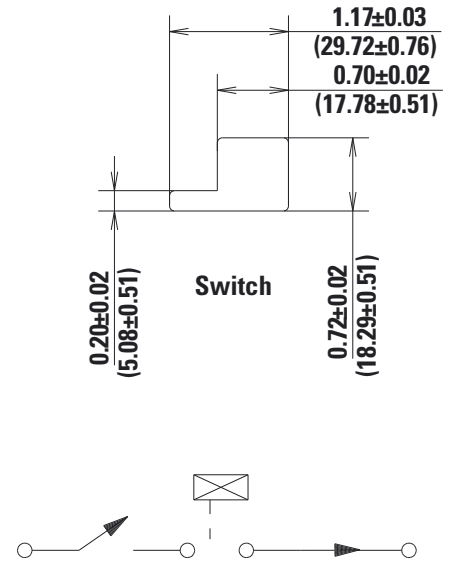
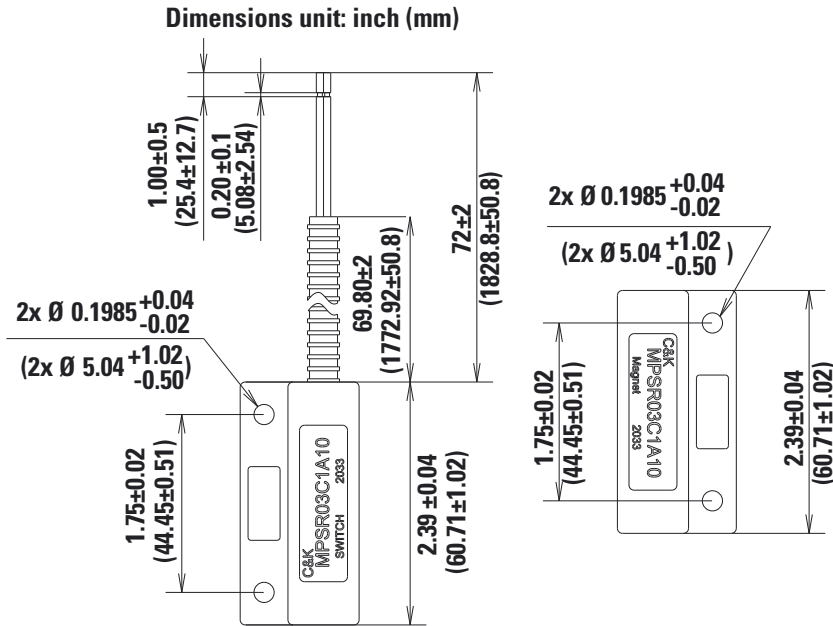
**Notes:** Please consult factory to see if your custom application requirements can be accommodated by a tailored solution.

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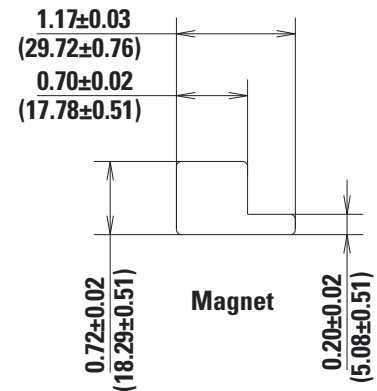
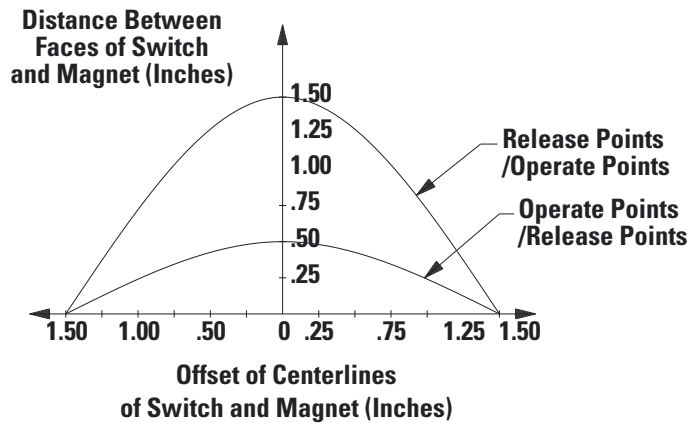
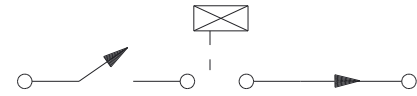
## Ruggedized Magnetic Proximity Sensors



Dimensions inches (mm)



Electrical Schematic



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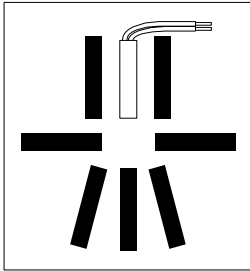
### Actuating Positions

When installing recessed and surface mount contacts, magnet position is very important. The switch and magnet must always be parallel or end to end, and never in a 'T' configuration.

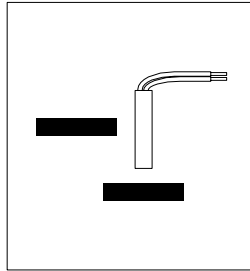
### Gap Distance

Gap distance is a combination of the horizontal and vertical plane separation of the switch and magnet. Example: if a recessed magnet is 1/4" off the centerline of the switch, the make gap is reduced by 1/4"

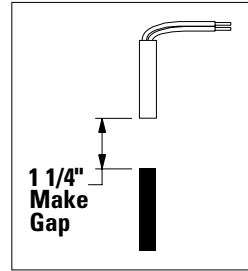
#### Correct Configuration



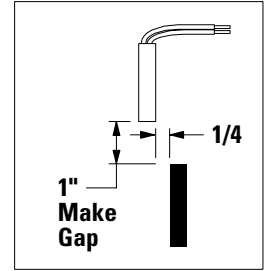
#### Incorrect Configuration



#### Center Alignment



#### Off Center Alignment



### Switch Contact Form

Switch Contact Form	Circuit Schematic	Wire Color
A	COM N.O.	COM: Black N.O.: Red
C	COM N.C. N.O.	COM: Black N.O.: Yellow N.C.: Red

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