

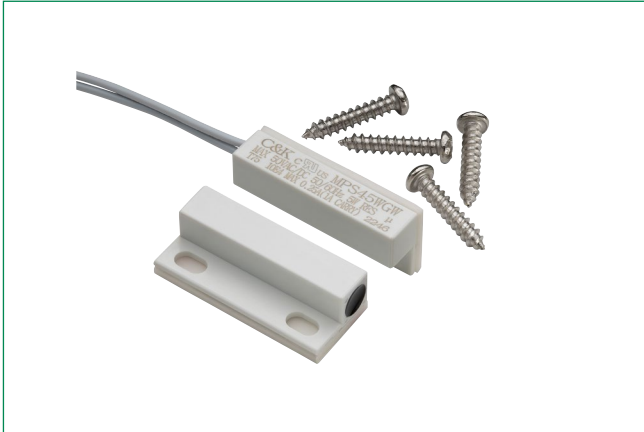


THE DATASHEET OF MPS45WGW



MPS Series

Magnetic Proximity Sensors



Specifications

Contact Rating	50V AC/DC 50/60Hz 5W (0.25A maximum) resistive
Contact Resistance	100 m Ω max. initial

Electrical Characteristics

Dielectric Strength	200 V DC min.
Electrical Circuit	SPST NO (Contact Form A). Reed switch opens when magnet is removed from proximity. Contacts are held closed when magnet is within actuation range.
Operating Temperature	-40°C to 100°C
Operating Distance/Alignment	Operate (pull-in or make) points are nominal values with $\pm 10\%$ tolerance. Release points are 110% to 150% of the operating points.
Mechanical & Electrical Life	4 millions operations
Packaging	Bulk packaging, 10 switch and magnet pairs per package

Description

The MPS series are magnetic proximity sensors, perfect for automotive sensors and indicators, industrial sensors and factory automation equipment. The MPS series are sealed, protecting them from the harsh environments they're commonly used in. Manufactured for a quick and easy installation, the MPS series also have a long lifecycle – lasting for more than 4 million actions.

Features & Benefits

- Long life - 4M operations
- Sealed contacts
- Quality construction
- Quick and easy installation
- UL Recognized to UL 61058-1 under File E42363

Applications

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

Materials

Housing/Space/Cover	ABS plastic (UL94V-0), white.
Reed Switch	Rhodium coated reed contacts in hermetically sealed, nitrogen filled glass capsule. Closed when magnet is in close proximity. Used in closed loop circuits.
Wire Leads	UL 1061/ UL 1007 / UL2468 All are 22 AWG wire: stranded, made of copper or aluminum. Length: 12 in. with ends stripped. Color: white. Potting (around wires): Epoxy.
Magnets	NdFeB
Adhesive Mounting	Foam-backed, pressure-sensitive adhesive with release liner.

Notes:

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

MPS Series

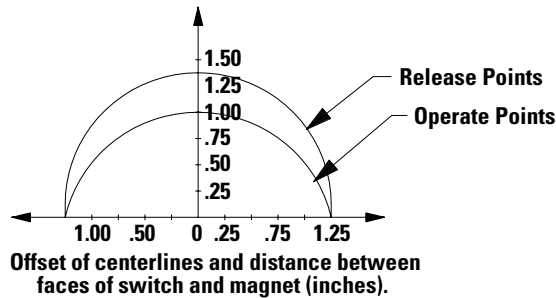
Magnetic Proximity Sensors



Ordering Number

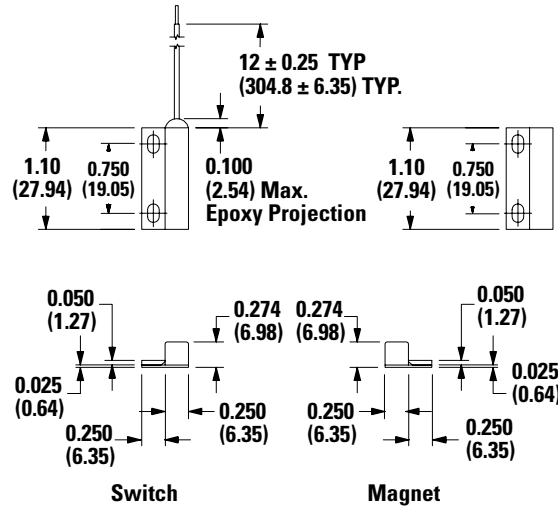
Part Number	Switch Type
MPS45WGW	Subminiature surface mount (adhesive or flange), side exit leads, 1" make gap.

Actuation Chart



Note: UL 61058 Rating

Dimensions inches (mm)



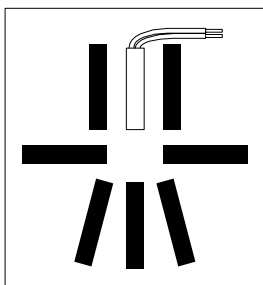
Actuating Positions

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.

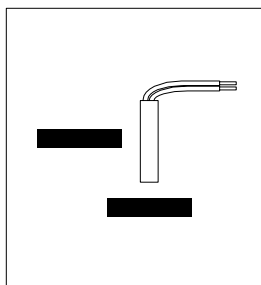
Gap Distance

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 $1/4"$

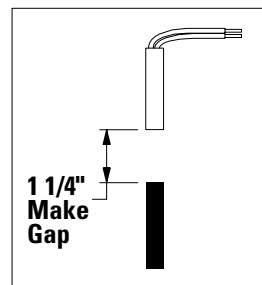
Correct Configuration



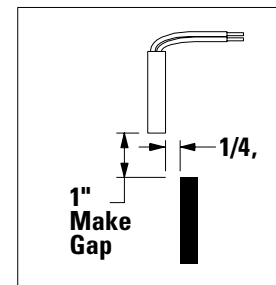
Incorrect Configuration



Center Alignment



Off Center Alignment



Disclaimer Notice - Information furnished is believed to be accurate and reliable. However, users should independently evaluate the suitability of and test each product selected for their own applications. Littelfuse products are not designed for, and may not be used in, all applications. Read complete Disclaimer Notice at <http://www.littelfuse.com/disclaimer-electronics>.

Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- ⊖ [View MPS45WGW](#) on WIN SOURCE
- ⊖ [C&K Components](#) Information

Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management