

MPS Series Magnetic Proximity Sensors



Features/Benefits

- Long life—10M operations
- Sealed contacts
- Quality construction
- Quick and easy installation

Typical Applications

- Automotive sensors and indicators
- Industrial sensors
- Factory automation equipment

Specifications

CONTACT RATINGS: 3.0 W max. @ 30 V DC or 30 V AC max. @ 0.3 AMP max.; 1.0 msec. max. operate time (including bounce); 1.0 AMP max. carry current.

CONTACT RESISTANCE: 100 m Ω max. initial.

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°F to 212°F (-40°C to 100°C).

OPERATING DISTANCE/ALIGNMENT: Operate (pull-in or make) points are nominal values with ± 10% tolerance. Release points are 110% to 150% of the operating points.

MECHANICAL & ELECTRICAL LIFE: 10 million operations.

PACKAGING: Bulk packaging, 10 switch and magnet pairs per package.

Materials

HOUSING/SPACER/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, 22 AWG wire: stranded, made of copper or aluminum; Length: 12 in. with ends stripped; Color: white.

POTTING (around wires): Epoxy.

MAGNETS: Alnico V (all models, except MPS80WG) and Ceramic Ferrite 8 (MPS80WG model only).

ADHESIVE MOUNTING: Foam-backed, pressure-sensitive adhesive with release liner (MPS45WGW model only).

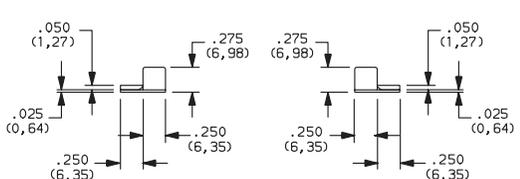
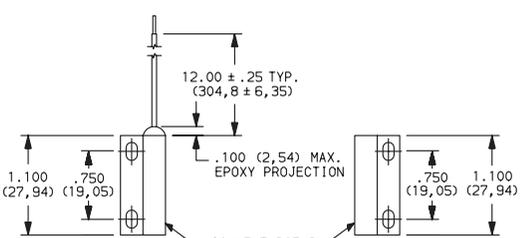
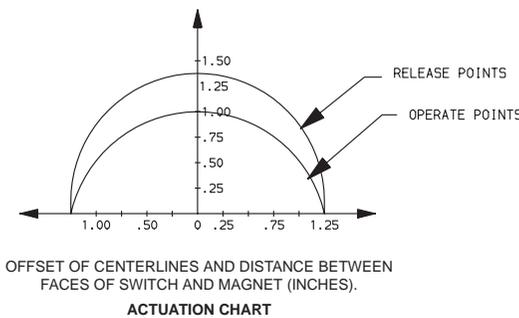
NOTE: Wide gap contacts are polarity sensitive. Use alignment dots for proper installation of surface mount contacts.

How To Order

Complete part numbers for MPS Series Magnetic Proximity Sensors are shown on pages E-16 thru E-19.

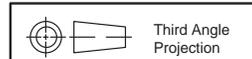


PART NUMBER	SWITCH TYPE
MPS45WGW	Subminiature surface mount (adhesive or flange), side exit leads, 1" make gap.



SWITCH

MAGNET



Dimensions are shown: IN (mm)
Dimensions subject to change

MPS Series Magnetic Proximity Sensors

SWITCH & MAGNET PANEL MOUNTING

ACTUATION CHART

RELEASE POINTS
OPERATE POINTS

1.50
1.25
1.00
.75
.50
.25

1.00 .50 0 .25 .75 1.25

OFFSET OF CENTERLINES AND DISTANCE BETWEEN FACES OF SWITCH AND MAGNET (INCHES).

PART NUMBER	SWITCH TYPE
MPS9WGW	3/8" Diameter recessed magnetic contact, 1 1/4" make gap.

SWITCH

MAGNET

0.050 MAX. (1,27) MAGNET PROJECTION

SWITCH PANEL MOUNTING

ACTUATION CHART

RELEASE POINTS
OPERATE POINTS

1.50
1.25
1.00
.75
.50
.25

1.00 .50 0 .25 .75 1.25

OFFSET OF CENTERLINES AND DISTANCE BETWEEN FACES OF SWITCH AND MAGNET (INCHES).

PART NUMBER	SWITCH TYPE
MPS95WGW	3/8" Diameter recessed magnetic contact, 1 1/4" make gap.

SWITCH

MAGNET

1.188 (30,18)

.250 DIA. (6,35φ)

SWITCH PANEL MOUNTING

MAGNET PANEL MOUNTING

ACTUATION CHART

RELEASE POINTS
OPERATE POINTS

1.50
1.25
1.00
.75
.50
.25

1.00 .50 0 .25 .75 1.25

OFFSET OF CENTERLINES AND DISTANCE BETWEEN FACES OF SWITCH AND MAGNET (INCHES).

PART NUMBER	SWITCH TYPE
MPS73WGW	3/4" Diameter recessed magnetic contact, 1 1/4" make gap.

SWITCH

MAGNET

12.000 ± .250 TYP. (304,80 ± 6,35)

.012 TYP. (0,30)

.063 TYP. (1,60)



Dimensions are shown: IN (mm)
Dimensions subject to change

Detect