

MC080170

MAGNETIC SENSORS • PROXIMITY SWITCHES

Magnetic proximity switches are contact-free sensors. They detect magnetic objects and - or magnets, regardless of whether they move or not. Since magnetic fields penetrate all non-magnetizable materials, the sensors can detect magnets through walls made of nonferrous heavy metal, stainless steel, aluminum, plastic, wood or through excessive sailing, for instance. The achievable sensing range of the devices depends on the strength of the affecting magnetic field. Magnetic sensors are used for positioning (e.g. position checks on hoisting gear), speed checks (e.g. on conveyor belts or transmission cog wheels through the aluminum housings) or for position detection (e.g. of goods carriers).



MECHANICAL DATA

| Ambient temperature | -25 °C 70 °C |
|---------------------------------------|------------------------|
| Degree of protection (IP) | IP67 |
| Housing design | Cylinder, screw-thread |
| Housing material | Stainless steel |
| Increased ambient temperatures > 80°C | No |
| Metal housing | Yes |
| Sensor diameter | 8 mm |
| Sensor length | 59 mm |
| Strong vibration / motion | No |
| Thread length | 45 mm |
| Thread pitch | 1 mm |
| Thread size, metric | 8 |

ELECTRICAL DATA

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|---|----------|
| Cross/short circuit identification possible | Yes |
| Hysteresis | 6 mm |
| Low sensitivity | No |
| Low switching hysteresis | No |
| Magnetic sensitivity | 2.8 mT |
| Max. output current | 200 mA |
| No-load current | 20 mA |
| Number of pins | 3 |
| Number of switching outputs | 1 |
| Operating voltage | 8 V 30 V |
| Reed contact | No |
| Reverse polarity protection | Yes |
| Setting via teach-in | No |
| Short-circuit-proof | Yes |
| Suitable for safety functions | No |
| Switching distance | 40 mm |
| Switching frequency | 1000 Hz |
| | |



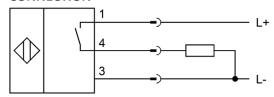
ELECTRICAL DATA

| Two switching points | No |
|--|-----------------------|
| Type of electrical connection | Connector M8 |
| Type of switching function | Normally open contact |
| Type of switching output | PNP |
| Voltage drop | 2 V |
| Voltage type | DC |
| With LED display | Yes |
| With monitoring function of downstream devices | No |

OTHER DATA

| Cylinder sensors | No |
|--------------------------------|-----|
| Harsh environmental conditions | Yes |
| Metallic sensor surface | Yes |
| Oil and cooling lubricants | Yes |
| Short travel path | No |

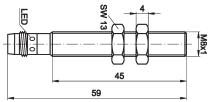
CONNECTION



Colors: 1 = BN (brown), 3 = BU (blue), 4 = BK (black)

Functions: 1 = L+, 3 = L-, 4 = PNP NO

DIMENSIONAL DRAWING



INSTALLATION



Mounting / Installation may only be carried out by a qualified electrician!

DISPOSAL



SAFETY WARNINGS



information!