

**MC050176****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
Cable length	0.3 m
Degree of protection (IP)	IP67
Housing design	Cylinder, screw-thread
Housing material	Stainless steel
Increased ambient temperatures > 80°C	No
Material of cable sheath	PUR (Polyurethane)
Metal housing	Yes
Sensor diameter	5 mm
Sensor length	14.5 mm
Strong vibration / motion	No
Thread length	14.5 mm
Thread pitch	0.5 mm
Thread size, metric	5

**ELECTRICAL DATA**

Cross/short circuit identification possible	Yes
Hysteresis	6 mm
Low sensitivity	No
Low switching hysteresis	No
Magnetic sensitivity	2.8 mT
Max. output current	150 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

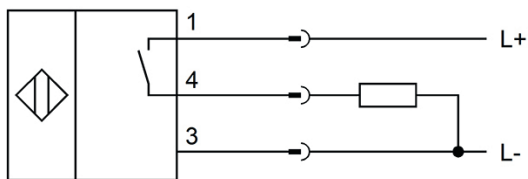
## ELECTRICAL DATA

Switching distance	40 mm
Switching frequency	1000 Hz
Two switching points	No
Type of electrical connection	Cable 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

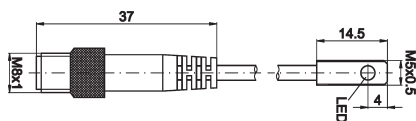
## CONNECTION



**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**

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information!