

## MZR4E180

### Magnetic field sensors • Sensors for pneumatic cylinders

Sensor Magnetic, cylinder, 4.1mm round groove, Ø4mm 20long, 10-30V DC, 1x PNP NO, M8 cable connector 3-pin 0.05m PUR (polyurethane), IP67, stainl. steel, VA, LED, 6mT, lateral installation, position of sensor surface device edge area



For many tasks in the field of automation technology, it is necessary to recognize the motional processes in pneumatic and hydraulic cylinders and to detect the position of the piston with precision. For this, magnetic cylinder sensors are used.

#### Electrical features

Number of switching outputs	1
Display	LED display
Type of switching function	Normally open contact (NO)
Type of electrical connection	Cable connector M8
Type of switching output	PNP
Rated switching current	150 mA
Absolute hysteresis	1 mm
Short-circuit protection	Yes
No-load current	10 mA
Magnetic sensitivity	6 mT
Number of pins	3
Switching frequency	1000 Hz
Sensor surface (active)	Border area / edge area
Voltage drop	2 V
Reverse polarity protection	Yes
Absolute repeat accuracy	0.1 mm
Operating voltage (DC)	10 - 30 V

## Mechanical features

Number of cores	3
Conductor cross-section	0.14 mm <sup>2</sup>
Design	Cylinder plain
Diameter	4 mm
Cable length	0.05 m
Sensor surface position	Device edge area below the light emitting diode
Length	20.5 mm
Mounting access, cylinder groove	Lateral
Degree of protection (IP)	IP67
Housing material	Stainless steel 1.4305
Material of cable sheath	Plastic (PUR)
Strong vibration / motion	Yes
Ambient temperature	-25 - 70 °C

## Other features

Suitable for	4.1mm C-slot (round groove)
Cylinder manufacturer	SMC
Harsh environmental conditions	Yes
Oil and cooling lubricants	Yes

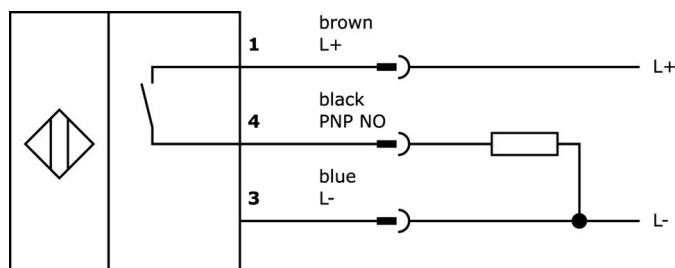
## Classification

ETIM 8	EC002544 Magnetic proximity switch
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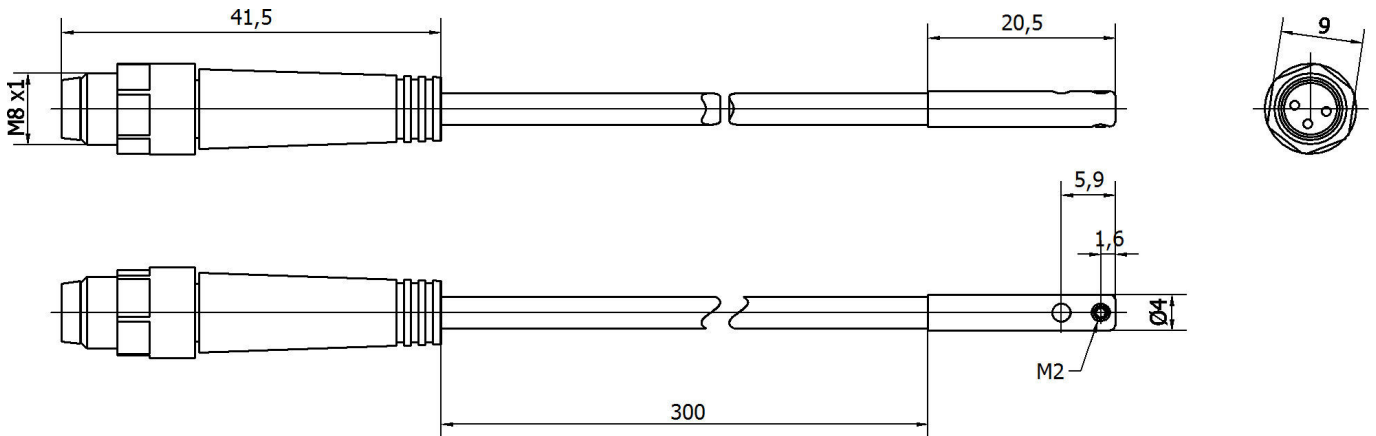
## More

IPF Product Group	223 pneumatic cylinder sensors (diverse)
packaging dimensions	120 x 100 x 25 mm
gross weight	8 g
Customs tariff number	85365019
WEEE number	40951076
Reach-compliant	Yes
RoHS-compliant	Yes

## Connection



## Dimensional drawing



## Extract accessories program

### VK200271



Connection cable, 2m, M8 Female (socket) 3pin Angular, Free conductor end, 3x0.34mm², PUR (Polyurethane), Ø4.3mm, -30-90°C, IP67, With LED display, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, Silico...

### VK500271



Connection cable, 5m, M8 Female (socket) 3pin Angular, Free conductor end 3pin, 3x0.34mm², PUR (Polyurethane), Ø4.3mm, -30-90°C, IP67, With LED display, Suitable for trailing chain and torsion resistant, Oil and cooling lubricants, Welding area, S...

### AV000142



accessories cable socket, Mounting clip, 8.5mm, PPO, Packaging unit 5, Accessories for Cable socket/connector M8

### AY000141



Plastic sheath, Ø17mm, Inner diameter 10mm, -40-250°C, Glass fiber with silicone rubber, Short-term resistance to weld spatter 1200°C, Tensile strength 400N, Flexible, Flame retardant, yard good

### AY000154



Tool, Screwdriver set, Internal hexagon 0.7mm, Internal hexagon 0.9mm, Internal hexagon 1.3mm, Internal hexagon 1.5mm, Internal hexagon 2mm, Slot 1.5mm, Slot 2mm, Slot 2.5mm, Chromium steel

### VYR90270



Signal inversion, Ø9mm 32long, 10-35V DC, 1x NC, M8 0.3m, IP67, Aluminum

### VYR91170



Inverter, Ø9mm 32long, PNP/NPN, 10-35V DC, 1x NO, M8 0.3m, IP67, Aluminum

### VY000004



DC power supply, sensor tester, 120x26x72mm, 18V, 0.04A, Spring clamp connection 4pin, IP20, Plastic

### NG530002



DC power supply, single-phase, 99x114x22mm, 24V, 0.1A, Number of relay outputs 2, 100-264V AC 50Hz, 100-264V AC 60Hz, Screw connection, IP20, Plastic, Stabilized, Output voltage, pulsed

You can find further accessories on our homepage



## Installation

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



## Disposal

WEEE number according to § 6 para. 3  
ElektroG: 40951076

## Safety warnings

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

/ Never use these devices in applications where the safety of a person depends on their functionality.