

**MZR40158**

**MAGNETIC SENSORS • SENSORS FOR PNEUMATIC CYLINDERS**

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.



**MECHANICAL DATA**

|                                       |                           |
|---------------------------------------|---------------------------|
| Ambient temperature                   | -25 °C ... 130 °C         |
| Cable length                          | 0.3 m                     |
| Degree of protection (IP)             | IP67                      |
| Housing design                        | Cylinder plain            |
| Housing material                      | Stainless steel 1.4305    |
| Increased ambient temperatures > 80°C | Yes                       |
| Material of cable sheath              | Teflon                    |
| Metal housing                         | Yes                       |
| Mounting access, cylinder groove      | Lateral                   |
| Sensor diameter                       | 3.6 mm                    |
| Sensor length                         | 20.5 mm                   |
| Sensor surface position               | Border area of the device |
| Strong vibration / motion             | Yes                       |
| Type of rounded groove                | 3.75mm rounded groove     |

**ELECTRICAL DATA**

|   |               |
|---|---------------|
| Cross/short circuit identification possible | Yes           |
| Hysteresis                                  | 1 mm          |
| Low sensitivity                             | No            |
| Low switching hysteresis                    | Yes           |
| Max. output current                         | 150 mA        |
| No-load current                             | 15 mA         |
| Number of pins                              | 3             |
| Number of switching outputs                 | 1             |
| Operating voltage                           | 10 V ... 30 V |
| Reed contact                                | No            |
| Reverse polarity protection                 | Yes           |
| Sensor surface (active)                     | Middle area   |
| Setting via teach-in                        | No            |
| Short-circuit-proof                         | Yes           |
| Suitable for safety functions               | No            |

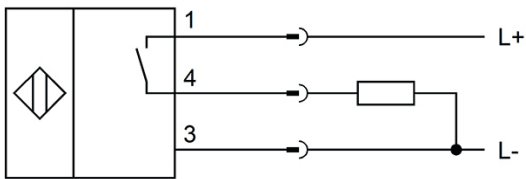
## ELECTRICAL DATA

|  |                       |
|--|-----------------------|
| 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                               | No                    |
| With monitoring function of downstream devices | No                    |

## OTHER DATA

|                                |                              |
|--------------------------------|------------------------------|
| Cylinder sensors               | Yes                          |
| Cylinder version               | With C-groove (round groove) |
| Harsh environmental conditions | Yes                          |
| Metallic sensor surface        | No                           |
| Oil and cooling lubricants     | Yes                          |
| Short travel path              | No                           |

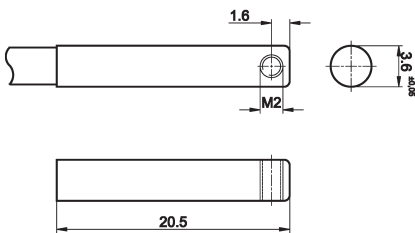
## CONNECTION



**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!