

1) Measuring point, 2) Sensing surface



**Basic features**

|                               |  |
|-------------------------------|--|
| <b>Application</b>            | Pneumatic cylinder with tie rods<br>Pneumatic cylinder with DUO rail<br>Round cylinder<br>Profile cylinder |
| <b>Approval/Conformity</b>    | cULus<br>CE<br>UKCA<br>WEEE  |
| <b>Basic standard</b>         | IEC 60947-5-2  |
| <b>Principle of operation</b> | Magnetic field sensor  |

**Display/Operation**

|                           |     |
|---------------------------|-----|
| <b>Function indicator</b> | yes |
|---------------------------|-----|

**Electrical connection**

|  |                  |
|--|------------------|
| <b>Connection</b>                        | M8x1-Male, 3-pin |
| <b>Polarity reversal protected</b>       | yes              |
| <b>Protection against device mix-ups</b> | yes              |
| <b>Short-circuit protection</b>          | yes              |

**Electrical data**

|   |             |
|---|-------------|
| <b>Assured switching field strength Ha</b>          | 2 kA/m      |
| <b>Hysteresis H max. (% of Hn)</b>                  | 45 %        |
| <b>Load capacitance max. at Ue</b>                  | 1 µF        |
| <b>No-load current I<sub>o</sub> max., undamped</b> | 10 mA       |
| <b>Operating voltage U<sub>b</sub></b>              | 10...30 VDC |
| <b>Output resistance R<sub>a</sub></b>              | Open drain  |
| <b>Rated insulation voltage U<sub>i</sub></b>       | 75 V DC     |
| <b>Rated operating current I<sub>e</sub></b>        | 200 mA      |
| <b>Rated operating voltage U<sub>e</sub> DC</b>     | 24 V        |
| <b>Rated short circuit current</b>                  | 100 A       |
| <b>Rated switch field strength H<sub>n</sub></b>    | 1.2 kA/m    |
| <b>Residual current I<sub>r</sub> max.</b>          | 80 µA       |
| <b>Ripple max. (% of U<sub>e</sub>)</b>             | 15 %        |
| <b>Switching frequency</b>                          | 10000 Hz    |
| <b>Turn-off delay t<sub>off</sub> max.</b>          | 0.05 ms     |
| <b>Turn-on delay t<sub>on</sub> max.</b>            | 0.05 ms     |
| <b>Utilization category</b>                         | DC -13      |
| <b>Voltage drop static max.</b>                     | 3.1 V       |

**Environmental conditions**

|                                |                                       |
|--------------------------------|---------------------------------------|
| <b>Ambient temperature</b>     | -25...85 °C                           |
| <b>Contamination scale</b>     | 3                                     |
| <b>EN 60068-2-27, Shock</b>    | Half-sinus, 30 g <sub>n</sub> , 11 ms |
| <b>EN 60068-2-6, Vibration</b> | 55 Hz, amplitude 1 mm, 3x30 min       |
| <b>ESD</b>                     | 3A(8KV)                               |
| <b>IP rating</b>               | IP67                                  |

## Functional safety

MTTF (40 °C) 330 a

## Interface

Switching output PNP normally open (NO)

## Material

Housing material PBT

Material sensing surface PU

## Mechanical data

Dimension 11 x 11 x 32 mm

## Range/Distance

Temp. drift max. (% of Hn) 0.3 %

## Remarks

The sensor is functional again after the overload has been eliminated.

UL-MARKINGS: - For use in NFPA 79 Applications only - Adapters providing field wiring means are available from the manufacturer. Refer to manufacturers information.

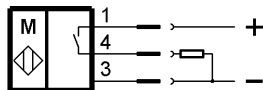
For more information about MTTF and B10d see MTTF / B10d Certificate

Indication of the MTTF- / B10d value does not represent a binding composition and/or life expectancy assurance; these are simply experiential values with no warranty implications. These declared values also do not extend the expiration period for defect claims or affect it in any way.

## Connector Drawings



## Wiring Diagrams (Schematic)



## Technical Drawings

