

1) see remarks



Basic features

| | |
|------------------------|-----------------------------|
| Approval/Conformity | CE UKCA WEEE cULus |
| Basic standard | IEC 60947-5-2 |
| Principle of operation | Magnetic field sensor |

Display/Operation

| | |
|--------------------|-----|
| Function indicator | yes |
|--------------------|-----|

Electrical connection

| | |
|-----------------------------------|----------------------------|
| Connection | M12x1-Male, 4-pin, A-coded |
| Polarity reversal protected | yes |
| Protection against device mix-ups | yes |
| Short-circuit protection | yes |

Electrical data

| | |
|--|-------------|
| Assured switching field strength H_a | 2 kA/m |
| Hysteresis H max. (% of H_n) | 45 % |
| Load capacitance max. at U_e | 1 μ F |
| No-load current I_o max., undamped | 10 mA |
| Operating voltage U_b | 10...30 VDC |
| Output resistance R_a | open source |
| Rated insulation voltage U_i | 75 V DC |
| Rated operating current I_e | 200 mA |
| Rated operating voltage U_e DC | 24 V |
| Rated short circuit current | 100 A |
| Rated switch field strength H_n | 1.2 kA/m |
| Residual current I_r max. | 80 μ A |
| Ripple max. (% of U_e) | 15 % |
| Switching frequency | 10000 Hz |
| Turn-off delay t_{off} max. | 0.05 ms |
| Turn-on delay t_{on} max. | 0.05 ms |
| Utilization category | DC -13 |
| Voltage drop static max. | 2 V |

Environmental conditions

| | |
|-------------------------|---------------------------------|
| Ambient temperature | -25...70 °C |
| Contamination scale | 3 |
| EN 60068-2-27, Shock | Half-sinus, 30 g_n , 11 ms |
| EN 60068-2-6, Vibration | 55 Hz, amplitude 1 mm, 3x30 min |
| ESD | 2A (4 kV) |
| Emission | Group 1, Class B |
| IP rating | IP67 |

Functional safety

MTTF (40 °C) 1014 a

Interface

Switching output PNP normally open (NO)

Material

Housing material Brass
 Material sensing surface PA 12

Mechanical data

Dimension Ø 12 x 50 mm
 Size M12x1
 Tightening torque 15 Nm

Range/Distance

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

Remarks

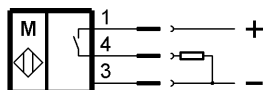
1) The marking lines on the sensing surface can be used to align the sensor in the magnetic field.
 The switching distance depends on the magnet used. Switching distances of >20 mm can be achieved.
 The sensor is functional again after the overload has been eliminated.
 For more information about MTTF 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.

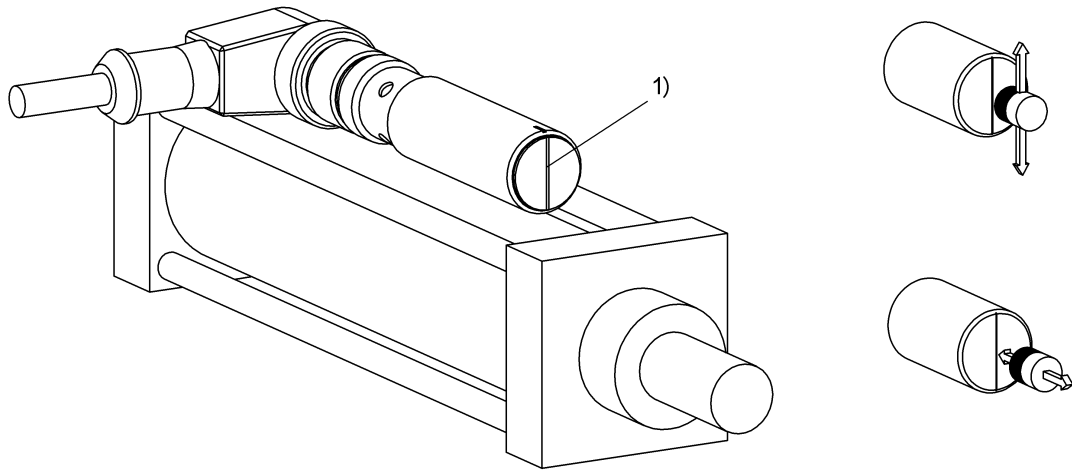
Connector Drawings



Wiring Diagrams



Help Views



1) see remarks