



## Basic features

|                     |  |
|---------------------|--|
| Additional features | Factor 1<br>Extended temperature range<br>weld-immune (magnetic field<br>100kA/m)<br>Housing resistant to weld spatter |
| Approval/Conformity | CE<br>UKCA<br>cULus<br>WEEE  |
| Basic standard      | IEC 60947-5-2  |
| Scope of delivery   | Nut (2x)   |

## Display/Operation

|                    |     |
|--------------------|-----|
| Function indicator | yes |
| Power indicator    | no  |

## Electrical connection

|                                   |                            |
|-----------------------------------|----------------------------|
| Connection                        | M12x1-Male, 3-pin, A-coded |
| Electrical version                | 3-wire                     |
| Polarity reversal protected       | yes                        |
| Protection against device mix-ups | yes                        |
| Short-circuit protection          | yes                        |

## Electrical data

|   |               |
|---|---------------|
| Load capacitance max. at Ue                 | 1 $\mu$ F     |
| Magnetic field strength, interference field | 100 kA/m      |
| Min. operating current Im                   | 0 mA          |
| No-load current Io max., damped             | 15 mA         |
| No-load current Io max., undamped           | 5 mA          |
| Operating voltage Ub                        | 10...30 VDC   |
| Output resistance Ra                        | 33.0 kOhm + D |
| Protection class                            | II            |
| Rated insulation voltage Ui                 | 250 V AC      |
| Rated operating current le                  | 200 mA        |
| Rated operating voltage Ue DC               | 24 V          |
| Rated short circuit current                 | 100 A         |
| Ready delay tv max.                         | 2 ms          |
| Ripple max. (% of Ue)                       | 15 %          |
| Switching frequency                         | 1000 Hz       |
| Utilization category                        | DC-13         |
| Voltage drop static max.                    | 2 V           |

## Environmental conditions

|                         |                                       |
|-------------------------|---------------------------------------|
| Ambient temperature     | -40...85 °C                           |
| Contamination scale     | 3                                     |
| EN 60068-2-27, Shock    | Half-sinus, 30 g <sub>n</sub> , 11 ms |
| EN 60068-2-6, Vibration | 55 Hz, amplitude 1 mm, 3x30 min       |
| IP rating               | IP67, IP68, according to BWN Pr 20    |
| Magnetic field immune   | magnetic field immune (AC/DC)         |

## Functional safety

|              |         |
|--------------|---------|
| MTTF (40 °C) | 400.5 a |
|--------------|---------|

Interface

Switching output PNP normally open (NO)

Material

Housing material Brass, PTFE coated

Material sensing surface PBT, PTFE coated

Mechanical data

Dimension Ø 18 x 66 mm

Installation for flush mounting

Mounting length 50.5 mm

Size M18x1

Tightening torque 15 Nm

Range/Distance

Assured operating distance Sa 4 mm

Hysteresis H max. (% of Sr) 15.0 %

Rated operating distance Sn 5 mm

Real switching distance sr 5 mm

Repeat accuracy max. (% of Sr) 5.0 %

Switching distance marking ■

Temperature drift max. (% of Sr) 10 %

Tolerance Sr 10 %

Remarks

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

