

## 

## Basic features

| Approval/Conformity | CE |
| :---: | :---: |
|  | cULus |
|  | EAC |
|  | WEEE |
| Basic standard | IEC 60947-5-2 |
| Display/Operation |  |
| Function indicator | yes |
| Power indicator | no |
| Electrical connection |  |
| Cable diameter D | 5.10 mm |
| Cable length L | 1 m |
| Connection | M12x1-Male, 4-pin, A-coded |
| Connection type | Cable with connector, 1.00 m , PUR |
| Polarity reversal protected | yes |
| Protection against device mix-ups | yes |
| Short-circuit protection | yes |

## Electrical data

| Load capacitance max. at Ue | $1 \mu \mathrm{~F}$ |
| :--- | :--- |
| Min. operating current Im | 0 mA |
| No-load current lo max., damped | 12 mA |
| No-load current lo max., undamped | 25 mA |
| Operating voltage Ub | $10 . . .30 \mathrm{VDC}$ |
| Output resistance Ra | $2.0 \mathrm{kOhm}+\mathrm{D}+$ LED |
| Rated insulation voltage Ui | 75 V DC |
| Rated operating current le | 130 mA |
| Rated operating voltage Ue DC | 24 V |
| Rated short circuit current | 100 A |
| Ready delay tv max. | 10 ms |
| Residual current Ir max. | $80 \mathrm{\mu A}$ |
| Ripple max. (\% of Ue) | $15 \%$ |
| Switching frequency | 100 Hz |
| Utilization category | $\mathrm{DC}-13$ |
| Voltage drop static max. | 3.8 V |
|  |  |

## Environmental conditions

| Ambient temperature | $-25 \ldots . .70^{\circ} \mathrm{C}$ |
| :--- | :--- |
| Contamination scale | 3 |
| EN 60068-2-27, Shock | Half-sinus, $30 \mathrm{gn}, 11 \mathrm{~ms}$ |
| EN 60068-2-6, Vibration | 55 Hz, amplitude $1 \mathrm{~mm}, 3 \times 30 \mathrm{~min}$ |
| Protection degree | IP68 |

## Functional safety

MTTF ( $40^{\circ}{ }^{\circ} \mathrm{C}$ ) 1620 a

| Material |  |
| :--- | :--- |
| Housing material | Brass |
| Material jacket | PUR |
| Material sensing surface | PA 12 |
| Surface protection | nickel plated |
|  |  |
| Mechanical data | $\varnothing 30 \times 36 \mathrm{~mm}$ |
| Dimension | for flush mounting |
| Installation | $\mathrm{M} 30 \times 1.5$ |
| Size | 70 Nm |
| Tightening torque |  |


| Output/Interface |  |
| :--- | :--- |
| Switching output | PNP normally closed (NC) |
| Range/Distance |  |
| Assured operating distance Sa | 12 mm |
| Hysteresis H max. (\% of Sr) | $15.0 \%$ |
| Rated operating distance Sn | 15 mm |
| Real switching distance sr | 15 mm |
| Repeat accuracy max. (\% of Sr) | $5.0 \%$ |
| Switching distance marking | $\boxed{\square}$ |
| Temperature drift max. (\% of Sr) | $10 \%$ |
| Tolerance Sr | $\pm 10 \%$ |

## Remarks

The sensor is functional again after the overload has been eliminated.
Flush: See installation instructions for inductive sensors with extended range 825357.
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



