



### Display/Operation

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

### Electrical connection

|                                   |                   |
|-----------------------------------|-------------------|
| Connection                        | M8x1-Male, 3-pole |
| Protection against device mix-ups | yes               |
| Short-circuit protection          | yes               |

### Electrical data

|   |             |
|---|-------------|
| Load capacitance max. at Ue                   | 1 µF        |
| No-load current I <sub>o</sub> max., undamped | 2 mA        |
| No-load current I <sub>o</sub> max., damped   | 7 mA        |
| Operating voltage U <sub>b</sub>              | 10...30 VDC |
| Output resistance R <sub>a</sub>              | 33.0 kOhm   |
| Polarity reversal protected                   | yes         |
| Protection class                              | II          |
| Rated insulation voltage U <sub>i</sub>       | 250 V AC    |
| Rated operating current I <sub>e</sub>        | 200 mA      |
| Rated operating voltage U <sub>e</sub> DC     | 24 V        |
| Rated short circuit current                   | 100 A       |
| Ready delay t <sub>v</sub> max.               | 25 ms       |
| Residual current I <sub>r</sub> max.          | 10 µA       |
| Residual ripple max. (% of U <sub>e</sub> )   | 10 %        |
| Switching frequency                           | 5000 Hz     |
| Utilization category                          | DC-13       |
| Voltage drop static max.                      | 2.5 V       |

### Environmental conditions

|                      |                          |
|----------------------|--------------------------|
| Ambient temperature  | -25...70 °C              |
| Contamination scale  | 3                        |
| EN 60068-2-27, Shock | Half-sinus, 30 gn, 11 ms |

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|                         |                                 |
|-------------------------|---------------------------------|
| EN 60068-2-6, Vibration | 55 Hz, amplitude 1 mm, 3x30 min |
| IP rating               | IP68                            |

### Functional safety

|              |       |
|--------------|-------|
| MTTF (40 °C) | 595 a |
|--------------|-------|

### General data

|                     |                    |
|---------------------|--------------------|
| Approval/Conformity | EAC<br>cULus<br>CE |
| Basic standard      | IEC 60947-5-2      |
| Trademark           | Global             |

### Material

|                          |                    |
|--------------------------|--------------------|
| Housing material         | Brass              |
| Material sensing surface | PBT                |
| Surface protection       | Nickel-free coated |

### Mechanical data

|                   |             |
|-------------------|-------------|
| Dimension         | Ø 8 x 60 mm |
| Installation      | flush       |
| Size              | M8x1        |
| Tightening torque | 3 Nm        |

### Output/Interface

|                  |                        |
|------------------|------------------------|
| Switching output | PNP Normally open (NO) |
|------------------|------------------------|

### Range/Distance

|   |        |
|---|--------|
| Assured operating distance S <sub>a</sub>   | 1.6 mm |
| Effective operating distance S <sub>r</sub> | 2 mm   |

For definitions of terms, see main catalog [eCI@ss 9.1: 27-27-01-01](mailto:eCI@ss 9.1: 27-27-01-01) 1(2)  
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|                                  |        |
|----------------------------------|--------|
| Hysteresis H max. (% of Sr)      | 15.0 % |
| Rated operating distance Sn      | 2 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 further information about the 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 view



## Wiring Diagram

