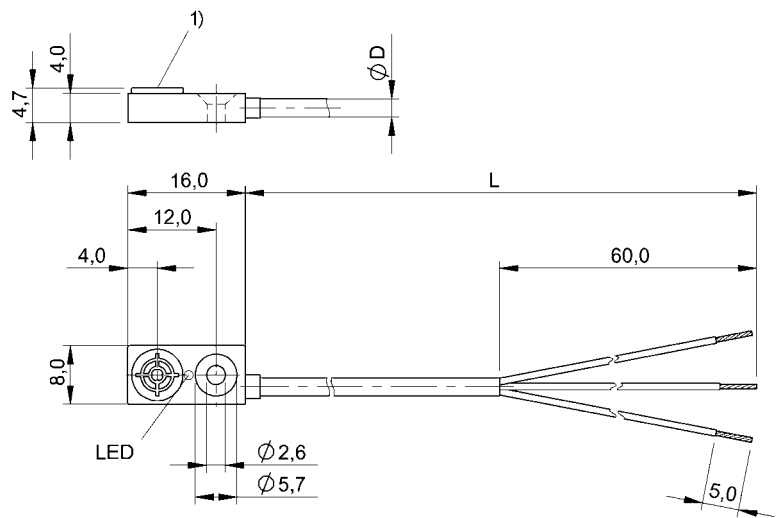




1) Sensing surface



Basic features

|                     |                             |
|---------------------|-----------------------------|
| Approval/Conformity | CE<br>UKCA<br>cULus<br>WEEE |
| Basic standard      | IEC 60947-5-2               |

Display/Operation

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

Electrical connection

|                                   |                      |
|-----------------------------------|----------------------|
| Cable diameter D                  | 2.50 mm              |
| Cable length L                    | 2 m                  |
| Conductor cross-section           | 0.09 mm <sup>2</sup> |
| Connection type                   | Cable, 2.00 m, PVC   |
| Number of conductors              | 3                    |
| Polarity reversal protected       | yes                  |
| Protection against device mix-ups | yes                  |
| Short-circuit protection          | yes                  |

Electrical data

|                                               |              |
|-----------------------------------------------|--------------|
| Load capacitance max. at U <sub>e</sub>       | 0.2 µF       |
| No-load current I <sub>o</sub> max., damped   | 3 mA         |
| No-load current I <sub>o</sub> max., undamped | 10 mA        |
| Operating voltage U <sub>b</sub>              | 10...30 VDC  |
| Output resistance R <sub>a</sub>              | Open emitter |
| Rated insulation voltage U <sub>i</sub>       | 75 V DC      |
| Rated operating current I <sub>e</sub>        | 100 mA       |
| Rated operating voltage U <sub>e</sub> DC     | 24 V         |
| Rated short circuit current                   | 100 A        |
| Ready delay t <sub>v</sub> max.               | 20 ms        |
| Residual current I <sub>r</sub> max.          | 50 µA        |
| Ripple max. (% of U <sub>e</sub> )            | 15 %         |
| Switching frequency                           | 2500 Hz      |
| Utilization category                          | DC -12       |
| 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 g <sub>n</sub> , 11 ms |
| EN 60068-2-6, Vibration | 55 Hz, amplitude 1 mm, 3x30 min       |
| IP rating               | IP67                                  |

Functional safety

|              |       |
|--------------|-------|
| MTTF (40 °C) | 830 a |
|--------------|-------|

Interface

Switching output                      PNP normally closed (NC)

Material

Housing material                      PA 6, GF30  
Material jacket                        PVC  
Material sensing surface              PA 6, GF30

Mechanical data

Dimension                              16 x 8 x 4.7 mm  
Installation                            for flush mounting  
Size                                        16x8x4.7

Range/Distance

Assured operating distance Sa              1.2 mm  
Hysteresis H max. (% of Sr)                15.0 %  
Rated operating distance Sn                1.5 mm  
Real switching distance sr                  1.5 mm  
Repeat accuracy max. (% of Sr)            1.0 %  
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.

Wiring Diagrams

