



1) Sensing surface



### Basic features

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

### Display/Operation

Function indicator	yes
Power indicator	no

### Electrical connection

Cable diameter D	2.50 mm
Cable length L	5 m
Conductor cross-section	0.09 mm <sup>2</sup>
Connection type	Cable, 5.00 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 Ue	0.2 µF
No-load current I <sub>o</sub> max., damped	10 mA
No-load current I <sub>o</sub> max., undamped	3 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
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### Interface

Switching output PNP normally open (NO)

### Material

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

### 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  $\pm 10$  %

### Mechanical data

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

### 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 (Schematic)

