



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	3.00 mm
Cable length L	0.2 m
Connection	M8x1-Male, 3-pin
Connection type	Cable with connector, 0.20 m, PUR
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

### Electrical data

Load capacitance max. at Ue	1 µF
Min. operating current Im	0 mA
No-load current Io max., damped	6 mA
No-load current Io max., undamped	2 mA
Operating voltage Ub	10...30 VDC
Output resistance Ra	Open drain
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	100 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Ready delay tv max.	21 ms
Residual current Ir max.	10 µA
Ripple max. (% of Ue)	10 %
Switching frequency	5000 Hz
Utilization category	DC -13
Voltage drop static max.	2 V

### Environmental conditions

Ambient temperature	-25...70 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 gn, 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP67

### Functional safety

MTTF (40 °C)	305 a
--------------	-------

## Interface

Switching output PNP normally open (NO)

## Material

Housing material Stainless steel  
 Material jacket PUR  
 Material sensing surface PBT

## Mechanical data

Dimension  $\varnothing 5 \times 27$  mm  
 Installation for flush mounting  
 Mounting length 26.00 mm  
 Size M5x0.5  
 Tightening torque 1 Nm

## Range/Distance

Assured operating distance Sa 1.21 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) 5.0 %  
 Switching distance marking ■■  
 Temperature drift max. (% of Sr) 10 %  
 Tolerance Sr  $\pm 10$  %

## Remarks

The sensor is functional again after the overload has been eliminated.  
 EMC: Surge resistance  
 External protection circuit is required. Document 825345, Section 2.  
 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 (Schematic)

