



1) Sensing surface



**Basic features**

<b>Approval/Conformity</b>	cULus CE EAC WEEE
<b>Basic standard</b>	IEC 60947-5-2

**Display/Operation**

<b>Function indicator</b>	yes
<b>Power indicator</b>	no

**Electrical connection**

<b>Cable diameter D</b>	3.50 mm
<b>Cable length L</b>	0.2 m
<b>Connection</b>	M12x1-Male, 4-pin, A-coded
<b>Connection type</b>	Cable with connector, 0.20 m, PUR
<b>Polarity reversal protected</b>	yes
<b>Protection against device mix-ups</b>	yes
<b>Short-circuit protection</b>	yes

**Electrical data**

<b>Load capacitance max. at Ue</b>	0.2 µF
<b>No-load current I<sub>o</sub> max., damped</b>	10 mA
<b>No-load current I<sub>o</sub> max., undamped</b>	3 mA
<b>Operating voltage U<sub>b</sub></b>	10...30 VDC
<b>Output resistance R<sub>a</sub></b>	Open collector
<b>Rated insulation voltage U<sub>i</sub></b>	75 V DC
<b>Rated operating current I<sub>e</sub></b>	100 mA
<b>Rated operating voltage U<sub>e</sub> DC</b>	24 V
<b>Rated short circuit current</b>	100 A
<b>Ready delay t<sub>v</sub> max.</b>	20 ms
<b>Residual current I<sub>r</sub> max.</b>	50 µA
<b>Ripple max. (% of U<sub>e</sub>)</b>	15 %
<b>Switching frequency</b>	5000 Hz
<b>Utilization category</b>	DC -12
<b>Voltage drop static max.</b>	2.5 V

**Environmental conditions**

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

**Material**

<b>Housing material</b>	Brass, Nickel-free coated
<b>Housing material, surface protection</b>	Nickel-free coated
<b>Material jacket</b>	PUR, with silicone tube
<b>Material sensing surface</b>	Ceramic

**Mechanical data**

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

**Output/Interface**

Switching output	PNP normally open (NO)
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**Range/Distance**

Assured operating distance Sa	1.6 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	2 mm
Real switching distance sr	2 mm
Repeat accuracy max. (% of Sr)	1.0 %
Switching distance marking	■ ■
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

**Remarks**

The sensor is functional again after the overload has been eliminated.

**Connector Drawings**



**Wiring Diagrams**

