



1) Sensing surface



#### Basic features

Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2

#### Display/Operation

Function indicator	yes
Power indicator	no

#### Electrical connection

Connection	M8x1-Male, 3-pin
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

#### Electrical data

Load capacitance max. at Ue	0.5 $\mu$ F
Min. operating current I <sub>m</sub>	10 mA
No-load current I <sub>o</sub> max., damped	10 mA
No-load current I <sub>o</sub> max., undamped	7 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Output resistance R <sub>a</sub>	Open collector
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.	10 $\mu$ A
Ripple max. (% of U <sub>e</sub> )	10 %
Switching frequency	4000 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

#### Environmental conditions

Ambient temperature	-25...80 °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	IP68

#### Functional safety

MTTF (40 °C)	735 a
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Interface

Switching output PNP normally open (NO)

Material

Gasket, material NBR 70  
Housing material Stainless steel  
Material sensing surface Ceramic  
Support ring material PTFE

Mechanical data

Dimension Ø 6.5 x 45 mm  
Installation for flush mounting  
Mounting length 20.00 mm  
Mounting part M8x1  
Pressure rating max. 500 bar  
Pressure rating, note oil pressure rated  
Sealing ring, size 4 x 1.5 mm  
Size M8x1  
Tightening torque 7 Nm ±10 %

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) 5.0 %  
Temperature drift max. (% of Sr) 10 %  
Tolerance Sr ±10 %

Remarks

Installation Instructions 861458  
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.

Connector Drawings



Wiring Diagrams

