



1) see remarks



#### Basic features

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

#### 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	1 µF
Min. operating current I <sub>m</sub>	0 mA
No-load current I <sub>o</sub> max., damped	10 mA
No-load current I <sub>o</sub> max., undamped	8 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Output resistance R <sub>a</sub>	33.0 kOhm + 2D
Rated insulation voltage U <sub>i</sub>	75 V DC
Rated operating current I <sub>e</sub>	200 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Rated short circuit current	100 A
Ready delay t <sub>v</sub> max.	10 ms
Residual current I <sub>r</sub> max.	10 µA
Ripple max. (% of U <sub>e</sub> )	15 %
Switching frequency	700 Hz
Utilization category	DC-13
Voltage drop static max.	2.8 V

#### Environmental conditions

Ambient temperature	0...60 °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	IP65

#### Functional safety

MTTF (40 °C)	355 a
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#### Interface

Switching output PNP normally open (NO)

#### Material

Housing material Brass, nickel-plated

Material sensing surface PBT

#### Mechanical data

Dimension Ø 6.5 x 59 mm

Installation quasi-flush

Mounting length 50.00 mm

Size D6.5

#### Range/Distance

Assured operating distance Sa 2.9 mm

Hysteresis H max. (% of Sr) 15.0 %

Rated operating distance Sn 4 mm

Real switching distance sr 4 mm

Repeat accuracy max. (% of Sr) 5.0 %

Switching distance marking ████

Temperature drift max. (% of Sr) 20 %

Tolerance Sr ±10 %

#### Remarks

1) Do not clamp in this area.

EMC: EMC protection circuit required, see 825345. Burst: 1.2 IVW: 2.2

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

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Quasi-flushed: See installation instructions for inductive sensors with extended range 825356.

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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)

