



1) Sensing surface



Display/Operation

Function indicator	yes
Power indicator	no

Electrical connection

Connection	M8x1-Male, 3-pole
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	1 µF
No-load current I _o max., undamped	2 mA
No-load current I _o max., damped	6 mA
Operating voltage U _b	10...30 VDC
Output resistance R _a	Open drain
Polarity reversal protected	yes
Rated insulation voltage U _i	75 V DC
Rated operating current I _e	100 mA
Rated operating voltage U _e DC	24 V
Rated short circuit current	100 A
Ready delay t _v max.	21 ms
Residual current I _r max.	10 µA
Residual ripple max. (% of U _e)	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
 EN 60068-2-6, Vibration

IP rating

Half-sinus, 30 gn, 11 ms
 55 Hz, amplitude 1 mm, 3x30 min
 IP67

Functional safety

MTTF (40 °C)	305 a
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General data

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

Material

Housing material	Stainless steel
Material sensing surface	PBT

Mechanical data

Dimension	Ø 5 x 41 mm
Installation	flush
Size	M5x0.5
Tightening torque	1 Nm

Output/Interface

Switching output	PNP Normally open (NO)
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Range/Distance

Assured operating distance S _a	1.21 mm
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Effective operating distance Sr	1.5 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	1.5 mm
Repeat accuracy max. (% of Sr)	5.0 %
Switching distance marking	■ ■
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Remarks

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

For further information about the 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 view



Wiring Diagram

