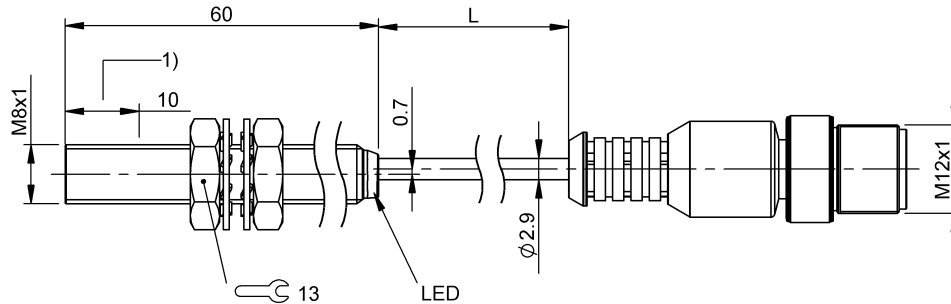




IND. CONT. EQ.
81U2
Class 2 Type 1



Basic features

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

Display/Operation

Function indicator	yes
Power indicator	no

Electrical connection

Cable diameter D	3 mm
Cable length L	0.3 m
Connection	M12x1-Male, 3-pin
Connection type	Cable with connector, 0.3 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
No-load current I _o max., damped	11 mA
No-load current I _o max., undamped	7 mA
Operating voltage U _b	10...30 VDC
Output resistance R _a	100.0 kOhm
Rated insulation voltage U _i	75 V DC
Rated operating current I _e	200 mA
Rated operating voltage U _e DC	24 V
Rated short circuit current	100 A
Ready delay t _v max.	40 ms
Residual current I _r max.	10 µA
Ripple max. (% of U _e)	10 %
Switching frequency	1200 Hz
Utilization category	DC -13
Voltage drop static max.	1.5 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
Protection degree	IP67

Functional safety

MTTF (40 °C)	584 a
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Material

Housing material	Brass
Material jacket	PUR
Material sensing surface	PBT
Surface protection	Nickel-free coated

Mechanical data

Dimension	Ø 8 x 60 mm
Installation	quasi-flush
Size	M8x1
Tightening torque	3 Nm

Output/Interface

Switching output	PNP normally open (NO)
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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
Switching distance marking	■■■■
Temperature drift max. (% of Sr)	15 %
Tolerance Sr	±10 %

Remarks

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

1) Do not clamp in this area.

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**