

## Basic features

Approval/Conformity	CE UKCA cULus WEEE
Base type deviation	Ta ...120 °C
Basic standard	IEC 60947-5-2
Principle of operation	Inductive sensor

## Display/Operation

Function indicator	no
Power indicator	no

## Electrical connection

Connection	M12x1-Male, 4-pin, A-coded
Polarity reversal protected	yes
Protection against device mix-ups	no
Short-circuit protection	no

## Electrical data

Load capacitance max. at Ue	1 µF
Min. operating current Im	0 mA
No-load current Io max., damped	20 mA
No-load current Io max., undamped	20 mA
Operating voltage Ub	10...30 VDC
Output resistance Ra	10.0 kOhm + D/10.0 kOhm + D
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	400 mA
Rated operating voltage Ue DC	24 V
Ready delay tv max.	10 ms
Residual current Ir max.	100 µA
Ripple max. (% of Ue)	15 %
Switching frequency	500 Hz
Utilization category	DC -13
Voltage drop static max.	1.5 V

## Environmental conditions

Ambient temperature	-25...120 °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
IP rating	IP67

## Functional safety

MTTF (40 °C)	1255 a
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## Interface

Switching output	PNP normally open/normally closed (NO/NC)
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## Material

Housing material	Brass, nickel-plated
Material sensing surface	PBT

## Mechanical data

Dimension	Ø 18 x 83 mm
Installation	for flush mounting
Mounting length	60.00 mm
Size	M18x1
Tightening torque	25 Nm

## Range/Distance

Assured operating distance Sa	4 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	5 mm
Real switching distance sr	5 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

## Remarks

Ta ≥ 70 °C... ≤ 120 °C: Ie ≤ 150 mA.

Recommendation: After a short circuit check the device for proper function.

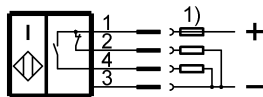
For more information about MTTF and B10d see MTTF / B10d Certificate

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)



1) For SCP see electrical data