



1) Sensing surface, 2) LED yellow



Basic features

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

Display/Operation

Function indicator	yes
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Electrical connection

Cable diameter D	4.50 mm
Cable length L	0.1 m
Connection	M12x1-Male, 4-pin, A-coded
Connection type	Cable with connector, 0.10 m, PUR
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	0.1 µF
Min. operating current I _m	0 mA
No-load current I _o max., damped	10 mA
No-load current I _o max., undamped	10 mA
Operating voltage U _b	10...30 VDC
Pass-through speed max.	20 m/s
Pulse lengthening	150 ms
Rated operating current I _e	200 mA
Rated operating voltage U _e DC	24 V
Ready delay t _v max.	20 ms
Residual current I _r max.	10 µA
Ripple max. (% of U _e)	10 %
Switching frequency	10 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

Environmental conditions

Ambient temperature	-25...70 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 g _n , 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 1x5 min
IP rating	IP67

Functional safety

MTTF (40 °C)	770 a
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Interface

Switching output PNP normally open (NO)

Material

Housing material PA 6.6
 Material jacket PUR

Mechanical data

Dimension 78.5 x 17 x 11.9 mm
 Target size min. M3x5 screw

Range/Distance

Hysteresis H max. (% of Sr) 15.0 %
 Rated operating distance Sn 16 mm
 Real switching distance sr 16 mm
 Repeat accuracy max. (% of Sr) 10.0 %
 Temperature drift max. (% of Sr) 10 %

Remarks

Sn value referenced to test plate made of steel ST37 16 mm x 16 mm.
 20 m/s at Sn=5 mm (screw M3x5)
 3 m/s at Sn=10 mm (screw M3x5)
 Static detection of metallic parts
 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 (Schematic)

