



Basic features

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

Display/Operation

Function indicator	yes
Power indicator	yes

Electrical connection

Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at U_e	1 μ F
Min. operating current I_m	0 mA
No-load current I_0 max., damped	20 mA
No-load current I_0 max., undamped	10 mA
Operating voltage U_b	10...30 VDC
Output resistance R_o	33.0 kOhm + D
Protection class	II
Rated insulation voltage U_i	250 V AC
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.	30 ms
Residual current I_r max.	80 μ A
Ripple max. (% of U_e)	15 %
Switching frequency	50 Hz
Utilization category	DC -13
Voltage drop static max.	3.5 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, 3x30 min
IP rating	IP67

Functional safety

MTTF (40 °C)	730 a
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Interface

Cable fitting, thread size	M20x1.5
Switching output	PNP normally open (NO)

Material

Housing material	PBT
Material sensing surface	PBT

Remarks

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

Factory setting Sn = 25 mm (switch position 1), in housing cover selectable to Sn = 40 mm (switch position 0).

LED 1: Function

LED 2: Operating voltage

Meets the requirements of VW-AG.

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

Mechanical data

Connection cross-section	2.5 mm ²
Dimension	120 x 40 x 40 mm
Installation	non-flush
Size	40x40
Tightening torque	4...5 Nm (M20x1.5)
Tightening torque clamping screw	0.8 Nm

Range/Distance

Assured operating distance Sa	20 mm 32 mm
Hysteresis H max. (% of Sr)	20.0 %
Rated operating distance Sn	25 mm
Real switching distance sr	40 mm 25 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Wiring Diagrams (Schematic)

