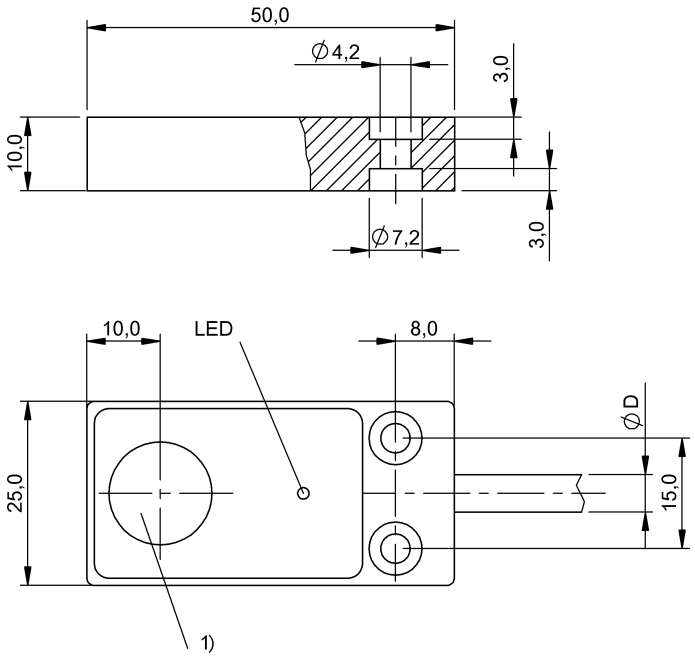
Inductive Sensors

BES 516-133-MO-C-02
Order Code: BES0179



1) Sensing surface

Basic features

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

Display/Operation

Function indicator	yes
Power indicator	no

Electrical connection

Cable diameter D	4.60 mm
Cable length L	2 m
Conductor cross-section	0.25 mm²
Connection type	Cable, 2.00 m, PVC
Number of conductors	4
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	1 µF
Min. operating current Im	0 mA
No-load current Io max., damped	32 mA
No-load current Io max., undamped	20 mA
Operating voltage Ub	10...30 VDC
Output resistance Ra	2.2 kOhm + D + LED/4.7 kOhm + D
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	200 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Ready delay tv max.	10 ms
Residual current Ir max.	80 µA
Ripple max. (% of Ue)	15 %
Switching frequency	500 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

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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)	1015 a

Material

Housing material	Aluminum
Material jacket	PVC
Material sensing surface	PBT

Mechanical data

Dimension	50 x 25 x 10 mm
Installation	for flush mounting

Output/Interface

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

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

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.

Wiring Diagrams

