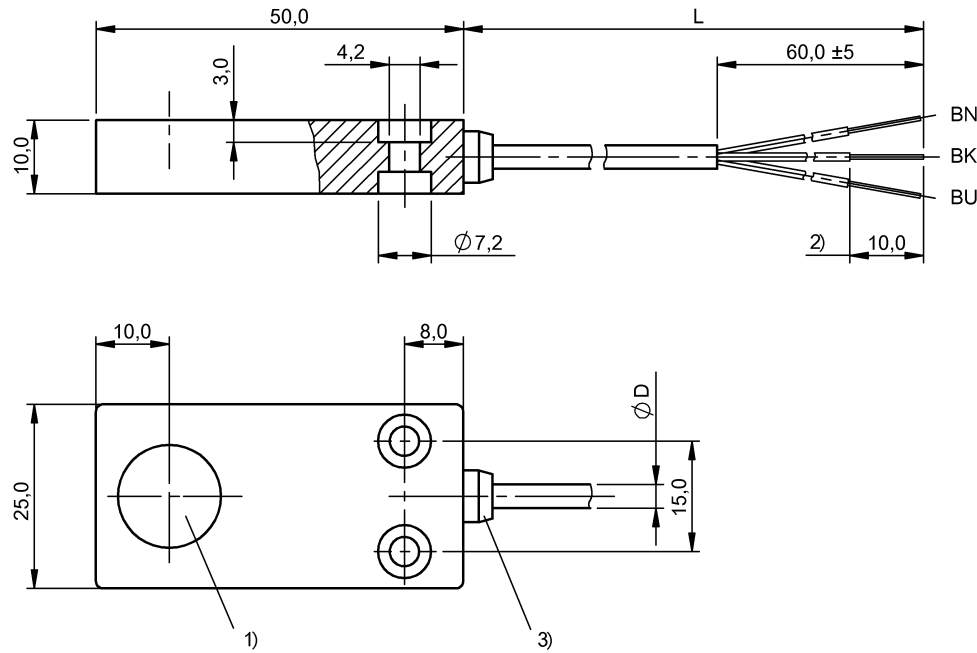


Inductive Sensors
BES 516-3009-SA2-MO-C-05
Order Code: BES0341

BALLUFF



1) Sensing surface, 2) tinned, 3) LED red



Basic features

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

Display/Operation

Power indicator	yes
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Electrical connection

Cable diameter D	3.20 mm
Cable length L	5 m
Conductor cross-section	0.14 mm ²
Connection type	Cable, 5.00 m, PUR
Number of conductors	3
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at U _e	0.5 µF
Min. operating current I _m	0 mA
No-load current I _o max., damped	1 mA
No-load current I _o max., undamped	10 mA
Operating voltage U _b	10...30 VDC
Output resistance R _a	33.0 kOhm + D
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.	10 ms
Residual current I _r max.	10 µA
Ripple max. (% of U _e)	15 %
Switching frequency	1000 Hz
Utilization category	DC -13
Voltage drop static max.	1 V

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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)	860 a
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Interface

Switching output	PNP normally closed (NC)
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Material

Housing material	Aluminium
Material jacket	PUR
Material sensing surface	PBT

Remarks

Effective switching distance s_r in aluminum [mm] $1.1 \pm 10\%$. Assured switching distance s_a in aluminum [mm] 0...0.9.
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.

Mechanical data

Dimension	50 x 25 x 10 mm
Installation	for flush mounting
Size	50x25x10

Range/Distance

Assured operating distance s_a	2 mm
Hysteresis H max. (% of s_r)	15.0 %
Rated operating distance s_n	2.5 mm
Real switching distance s_r	2.5 mm
Repeat accuracy max. (% of s_r)	5.0 %
Temperature drift max. (% of s_r)	10 %
Tolerance s_r	$\pm 10\%$

Wiring Diagrams

