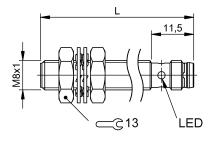
BALLUFF





Basic features

Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Principle of operation	Inductive sensor
Display/Operation	
Function indicator	yes
Power indicator	no

Electrical connection

Connection	M8x1-Male, 3-pin
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	7 mA
No-load current Io max., undamped	2 mA
Operating voltage Ub	1030 VDC
Output resistance Ra	33.0 kOhm + D
Protection class	II
Rated insulation voltage Ui	250 V AC
Rated operating current le	200 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Ready delay tv max.	25 ms
Residual current Ir max.	10 µA
Ripple max. (% of Ue)	10 %
Switching frequency	5000 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

Environmental conditions

Ambient temperature Contamination scale EN 60068-2-27, Shock EN 60068-2-6, Vibration IP rating

-40...85 °C 3 Half-sinus, 30 g_n, 11 ms 55 Hz, amplitude 1 mm, 3x30 min IP68

Functional safety

MTTF (40 °C)

Interface

Switching output

PNP normally open (NO)

eCl@ss 9.1: 27-27-01-01 ETIM 6.0: EC002714 BES00P7_3_2021-03-18

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Inductive Sensors BES 516-324-G-E5-C-S49 Order Code: BES00P7

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Material

Material		Range/Distance
Housing material Material sensing surface	Stainless steel PBT	Assured operating dista Hysteresis H max. (% of Rated operating distanc
Mechanical data		Real switching distance
Dimension Installation Mounting length Size Tightening torque	Ø 8 x 45 mm for flush mounting 33.00 mm M8x1 8 Nm	Repeat accuracy max. (Switching distance mar Temperature drift max. Tolerance Sr

Assured operating distance Sa	1.6 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	2 mm
Real switching distance sr	2 mm
Repeat accuracy max. (% of Sr)	5.0 %
Switching distance marking	
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.

Connector Drawings



Wiring Diagrams (Schematic)

