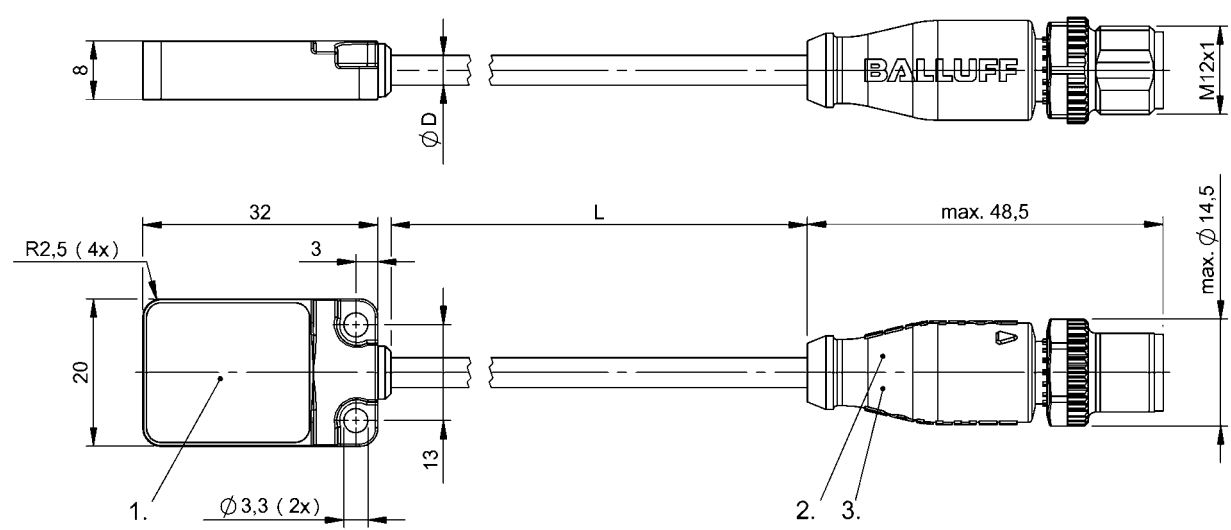


Inductive Sensors

BES R01EC-PSC50A-BP00,3-GS04-W50

Order Code: BES04AH

BALLUFF



1) Sensing surface, 2) LED yellow, 3) LED green



Basic features

Additional features	Factor 1 Weld immune
Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Trademark	Factor 1

Display/Operation

Function indicator	yes
Power indicator	yes

Electrical connection

Cable diameter D	3.90 mm
Cable length L	0.3 m
Conductor cross-section	0.25 mm ²
Connection	M12x1-Male, 4-pin, A-coded
Connection type	Cable with connector, 0.30 m, PUR
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at U _e	1 µF
Magnetic field strength, interference field	100 kA/m
Min. operating current I _m	0 mA
No-load current I _o max., damped	30 mA
No-load current I _o max., undamped	25 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.	30 ms
Residual current I _r max.	10 µA
Ripple max. (% of U _e)	15 %
Switching frequency	20 Hz
Utilization category	DC -13
Voltage drop static max.	2 V

Environmental conditions

Ambient temperature	-25...70 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 g _n , 11 ms Half-sinus, 100 g _n , 2 ms, 3x8000
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min 30 g, 10...2000 Hz
IP rating	IP67
Magnetic field immune	magnetic field immune (AC/DC)

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Functional safety

MTTF (40 °C) 335 a

Interface

Switching output PNP normally open (NO)

Material

Housing material Stainless steel
Material jacket PUR
Material sensing surface Stainless steel

Mechanical data

Dimension 32 x 20 x 8 mm
Installation for flush mounting
Size 32x20x8

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

LED yellow: Function
LED green: Power
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

