



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



Basic features

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

Display/Operation

Function indicator	yes
Power indicator	yes

Electrical connection

Cable diameter D	3.80 mm
Cable length L	0.2 m
Connection	M12x1-Male, 4-pin, A-coded
Connection type	Cable with connector, 0.20 m, TPU
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	1 µF
Magnetic field strength, interference field	100 kA/m
Min. operating current Im	0 mA
No-load current Io max., damped	15 mA
No-load current Io max., undamped	15 mA
Operating voltage Ub	10...30 VDC
Output resistance Ra	33.0 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.	20 ms
Residual current Ir max.	80 µA
Ripple max. (% of Ue)	10 %
Switching frequency	100 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

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
IP rating	IP67
Magnetic field immune	magnetic field immune (AC/DC)

Functional safety

MTTF (40 °C)	880 a
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Inductive Sensors
BES R01ZC-PSC50B-BZ00,2-GS04-V02
Order Code: BES048J



Interface

Switching output PNP normally open (NO)

Material

Housing material Zinc, Die casting
Material jacket TPU
Material sensing surface PA 12

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 %

Mechanical data

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

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)

