



Basic features

Application	Object detection
Approval/Conformity	CE cULus WEEE UKCA
Basic standard	IEC 60947-5-2
Scope of delivery	2x nut M08x1

Display/Operation

Function indicator	yes
Power indicator	yes

Electrical connection

Connection	M8x1-Male, 3-pin, A-coded
Electrical version	3-wire
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	1 μ F
Min. operating current I _m	0 mA
No-load current I _o max., damped	7 mA
No-load current I _o max., undamped	5 mA
Operating voltage U _b	10...30 VDC
Output resistance R _a	Open drain
Rated insulation voltage U _i	75 V DC
Rated operating current I _e	100 mA
Rated operating voltage U _e DC	24 V
Rated short circuit current	100 A
Ready delay t _v max.	50 ms
Ripple max. (% of U _e)	15 %
Switching frequency	600 Hz
Utilization category	DC -13
Voltage drop static max.	1.3 V

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)	1410 a
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Interface

Switching output	PNP normally open (NO)
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Inductive Sensors
BES M08ZI1-PSC20B-S49G
Order Code: BES060T

BALLUFF

Material

Housing material	Die-cast zinc, nickel-plated PC
Material sensing surface	PBT

Mechanical data

Dimension	Ø 8 x 65 mm
Installation	for flush mounting
Size	M8x1
Tightening torque max.	3 Nm

Range/Distance

Assured operating distance Sa	1.6 mm
Hysteresis H max. (% of Sr)	15 %
Rated operating distance Sn	2 mm
Repeat accuracy max. (% of Sr)	5 %
Switching distance marking	■ ■
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	10 %

Remarks

The sensor is functional again after the overload has been eliminated.
Find the installation instructions for inductive sensors in the download area of the sensor on the homepage.
Status LED:

- Off: No supply voltage or sensor defective
 - Green: Sensor ready, supply voltage applied
 - Yellow: Target detected
 - Red: Error detected: short circuit
undervoltage < 5-8 VDC
overtemperature or overload
- Error condition is only displayed in damped state
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

