



**Basic features**

Approval/Conformity	CE EAC cULus WEEE
Basic standard	IEC 60947-5-2
Scope of delivery	Lockwashers D9x0.5 (2x), Nut M5x0.5 (2x)

**Display/Operation**

Function indicator	LED yellow
Power indicator	Green LED

**Electrical connection**

Cable diameter D	3.15 mm
Cable length L	1 m
Conductor cross-section	0.15 mm <sup>2</sup>
Connection	M8x1
Connection type	Cable with connector, 1 m, Silicone
Electrical version	3-wire
Number of conductors	3
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

**Electrical data**

Load capacitance max. at Ue	0.5 µF
No-load current I <sub>o</sub> max., damped	10 mA
No-load current I <sub>o</sub> max., undamped	10 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Output resistance R <sub>a</sub>	Open collector
Rated insulation voltage U <sub>i</sub>	75 V DC
Rated operating current I <sub>e</sub>	100 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Rated short circuit current	100 A
Ready delay t <sub>v</sub> max.	50 ms
Residual current I <sub>r</sub> max.	50 µA
Ripple max. (% of U <sub>e</sub> )	10 %
Switching frequency	1.5 kHz
Utilization category	DC -13
Voltage drop static max.	2 V

**Environmental conditions**

Ambient temperature	0...135 °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 55 Hz, amplitude 2 mm, 3x30 min
IP rating	IP67

**Functional safety**

MTTF (40 °C)	2280 a
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## Inductive Sensors

# BES M05EG-PSD08B-ES01-GS49-T

Order Code: BES05RF

# BALLUFF

### Material

Housing material	Stainless steel (1.4104)
Material jacket	Silicone
Material sensing surface	Ceramic

### Mechanical data

Dimension	Ø 5 x 42 mm
Installation	for flush mounting
Pressure rating max.	10 bar
Pressure rating, note	oil pressure rated
Size	M5x0.5
Tightening torque	1.5 Nm

### Output/Interface

Switching output	PNP normally open (NO)
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### Range/Distance

Assured operating distance Sa	0.58 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	0.8 mm
Repeat accuracy max. (% of Sr)	10 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

### Remarks

Derating  $0^{\circ}\text{C} \leq T_a \leq 110^{\circ}\text{C}$ : 100mA,  $110^{\circ}\text{C} \leq T_a \leq 135^{\circ}$  with Derating 3.6mA/ $^{\circ}\text{C}$

Power indicator and function indicator in connector.

Sealing of the thread with a sealing tape made of PTFE.

The sensor is functional again after the overload has been eliminated.

Correction factor for damping material cast iron: 0.89...1.05

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

