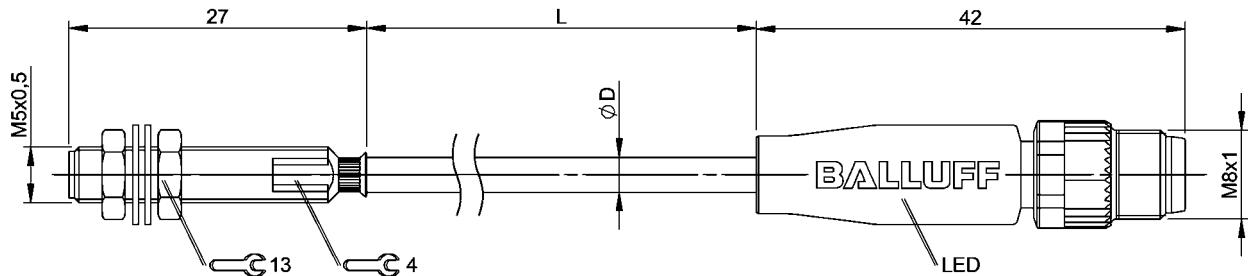


## Inductive Sensors

BES M05ED-PSD08B-ES01-GS49-T

Order Code: BES05RN

**BALLUFF**

## Basic features

Approval/Conformity	CE UKCA 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>0</sub> max., damped	10 mA
No-load current I <sub>0</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 g <sub>n</sub> , 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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## Interface

Switching output	PNP normally open (NO)
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**Material**

<b>Housing material</b>	1.4104 stainless steel
<b>Material jacket</b>	Silicone
<b>Material sensing surface</b>	Ceramic

**Mechanical data**

<b>Dimension</b>	Ø 5 x 27 mm
<b>Installation</b>	for flush mounting
<b>Pressure rating max.</b>	10 bar
<b>Pressure rating, note</b>	oil pressure rated
<b>Size</b>	M5x0.5
<b>Tightening torque</b>	1.5 Nm

**Remarks**

Derating 0°C≤Ta≤110°C: 100mA, 110°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**