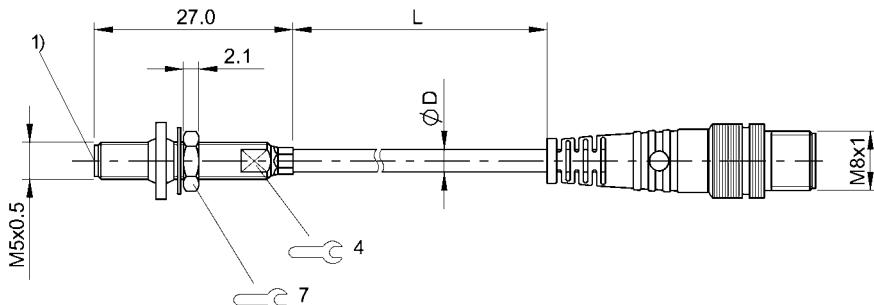


## Inductive Sensors

BES M05ED-PSD08B-BP00,3-GS49-R03

Order Code: BES03LC

**BALLUFF**

1) Sensing surface



## Basic features

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

## Display/Operation

Function indicator	no
Power indicator	no

## Electrical connection

Cable diameter D	3.00 mm
Cable length L	0.3 m
Connection	M8x1-Male, 3-pin
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 Ue	0.2 $\mu$ F
Min. operating current I <sub>m</sub>	1 mA
No-load current I <sub>o</sub> max., damped	10 mA
No-load current I <sub>o</sub> max., undamped	3 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.	25 ms
Residual current I <sub>r</sub> max.	80 $\mu$ A
Ripple max. (% of U <sub>e</sub> )	10 %
Switching frequency	3000 Hz
Utilization category	DC-13
Voltage drop static max.	3 V

## Environmental conditions

Ambient temperature	-25...70 °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
IP rating	IP67

## Functional safety

MTTF (40 °C)	830 a
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**Interface**

Switching output PNP normally open (NO)

**Material**

Housing material	Stainless steel
Material jacket	PUR
Material sensing surface	Ceramic

**Range/Distance**

Assured operating distance Sa	0.65 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	0.8 mm
Real switching distance sr	0.8 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	-10 %/+40 %

**Mechanical data**

Dimension	Ø 5 x 27 mm
Installation	for flush mounting
Mounting length	24.00 mm
Pressure rating max.	100 bar
Pressure rating, note	oil pressure rated
Sealing ring, size	10.4 x 3.5 mm
Size	M5x0.5
Tightening torque	1 Nm ±10 %

**Remarks**

Installation Instructions 868058

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**