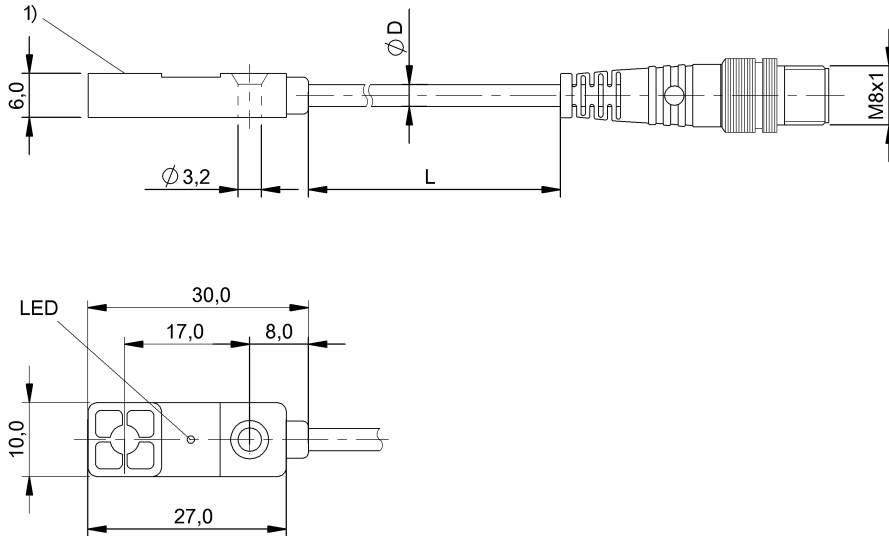


Inductive Sensors  
**BES R03KC-PSC30B-BP00,3-GS49**  
**Order Code: BES01WP**

**BALLUFF**



**Basic features**

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

**Display/Operation**

Function indicator	yes
Power indicator	no

**Electrical connection**

Connection	M8x1-Male, 3-pin
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
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.	15 ms
Residual current I <sub>r</sub> max.	1 $\mu$ A
Ripple max. (% of U <sub>e</sub> )	15 %
Switching frequency	3000 Hz
Utilization category	DC -12
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 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)
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**Material**

Housing material	PA 6, GF30
Material sensing surface	PA 6, GF30/black

**Mechanical data**

Dimension	30 x 10 x 6 mm
Installation	for flush mounting
Size	30x10x6

**Range/Distance**

Assured operating distance Sa	2.4 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	3 mm
Real switching distance sr	3 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

**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**

