



1) Sensing surface, 2) LED yellow, 3) LED green



**Basic features**

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

**Display/Operation**

Function indicator	yes
Power indicator	yes

**Electrical connection**

Cable diameter D	3.2 mm
Cable length L	0.3 m
Conductor cross-section	0.15 mm <sup>2</sup>
Connection	M12x1-Male, 3-pin, A-coded
Connection type	Cable with connector, 0.30 m, Silicone
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

**Electrical data**

Load capacitance max. at Ue	0.2 µF
No-load current I <sub>o</sub> max., damped	16 mA
No-load current I <sub>o</sub> max., undamped	7 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.	20 ms
Residual current I <sub>r</sub> max.	50 µA
Ripple max. (% of U <sub>e</sub> )	15 %
Switching frequency	5000 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	IP65

**Functional safety**

MTTF (40 °C)	305 a
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Inductive Sensors  
**BES R12EC-PSC20B-ES00,3-GS04-118**  
 Order Code: BES05P2



Interface

Switching output PNP normally open (NO)

Material

Housing material Stainless steel  
 Material jacket Silicone  
 Material sensing surface Ceramic

Mechanical data

Dimension 19 x 8 x 4.7 mm  
 Installation for flush mounting  
 Size 16x8x4.7

Range/Distance

Assured operating distance Sa 1.6 mm  
 Hysteresis H max. (% of Sr) 15.0 %  
 Rated operating distance Sn 2 mm  
 Real switching distance sr 2 mm  
 Repeat accuracy max. (% of Sr) 1.0 %  
 Switching distance marking ■■  
 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 (Schematic)

