



1) Sensing surface



#### Basic features

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

#### Display/Operation

Function indicator	yes
Power indicator	no

#### Electrical connection

Cable diameter D	3.00 mm
Cable length L	5 m
Conductor cross-section	0.14 mm <sup>2</sup>
Connection type	Cable, 5.00 m, TPU
Number of conductors	3
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

#### Electrical data

Load capacitance max. at U <sub>e</sub>	0.2 µF
No-load current I <sub>o</sub> max., damped	3 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.	15 ms
Residual current I <sub>r</sub> max.	1 µA
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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Inductive Sensors  
BES R03KC-POC30B-EP05  
Order Code: BES01WM



Interface

Switching output                      PNP normally closed (NC)

Material

Housing material                      PA 6, GF30  
Material jacket                        TPU  
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.

Wiring Diagrams

