



1) Sensing surface, 2) LED yellow



### Basic features

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

### Display/Operation

Function indicator	yes
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### Electrical connection

Cable diameter D	4.50 mm
Cable length L	0.1 m
Connection	M12x1-Male, 4-pin, A-coded
Connection type	Cable with connector, 0.10 m, PUR
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

### Electrical data

Load capacitance max. at Ue	0.1 $\mu$ F
Min. operating current I <sub>m</sub>	0 mA
No-load current I <sub>o</sub> max., damped	10 mA
No-load current I <sub>o</sub> max., undamped	10 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Pass-through speed max.	20 m/s
Pulse lengthening	150 ms
Rated operating current I <sub>e</sub>	200 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Ready delay t <sub>v</sub> max.	20 ms
Residual current I <sub>r</sub> max.	10 $\mu$ A
Ripple max. (% of U <sub>e</sub> )	10 %
Switching frequency	10 Hz
Utilization category	DC -13
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, 1x5 min
IP rating	IP67

### Functional safety

MTTF (40 °C)	770 a
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Inductive Sensors  
**BES Z06K-PSC16F-BP00,1-GS04**  
Order Code: **BES0429**



### Interface

Switching output PNP normally open (NO)

### Material

Housing material PA 6.6  
Material jacket PUR

### Mechanical data

Dimension 78.5 x 17 x 11.9 mm  
Target size min. M3x5 screw

### Range/Distance

Hysteresis H max. (% of Sr) 15.0 %  
Rated operating distance  $S_n$  16 mm  
Real switching distance  $s_r$  16 mm  
Repeat accuracy max. (% of Sr) 10.0 %  
Temperature drift max. (% of Sr) 10 %

### Remarks

$S_n$  value referenced to test plate made of steel ST37 16 mm x 16 mm.  
20 m/s at  $S_n=5$  mm (screw M3x5)  
3 m/s at  $S_n=10$  mm (screw M3x5)  
Static detection of metallic parts  
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

