



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

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 $U_e$	0.2 $\mu$ F
Min. operating current $I_m$	1 mA
No-load current $I_o$ max., damped	10 mA
No-load current $I_o$ max., undamped	3 mA
Operating voltage $U_b$	10...30 VDC
Output resistance $R_a$	Open collector
Rated insulation voltage $U_i$	75 V DC
Rated operating current $I_e$	100 mA
Rated operating voltage $U_e$ DC	24 V
Rated short circuit current	100 A
Ready delay $t_v$ max.	15 ms
Residual current $I_r$ max.	10 $\mu$ A
Ripple max. (% of $U_e$ )	10 %
Switching frequency	3000 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 $g_n$ , 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 516-3040-I02-C-S49**  
Order Code: BES01ZF



**Interface**

Switching output PNP normally open (NO)

**Material**

Housing material Aluminium, Anodized  
Material sensing surface PBT

**Mechanical data**

Dimension 46 x 5 x 5 mm  
Installation for flush mounting  
Size 5x5

**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) 20 %  
Tolerance Sr ±10 %

**Remarks**

The sensor is functional again after the overload has been eliminated.  
ESD requirements met if housing is grounded.  
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**

