



1) Sensing surface



### Basic features

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

### Display/Operation

Function indicator	yes
Power indicator	no

### Electrical connection

Connection type	1. Switch position: Screw terminals
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

### Electrical data

Load capacitance max. at Ue	1 µF
No-load current I <sub>0</sub> max., undamped	15 mA
Output resistance R <sub>a</sub>	2.0 kOhm + D + LED
Protection class	II
Rated insulation voltage U <sub>i</sub>	250 V AC
Rated operating current I <sub>e</sub>	130 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Rated short circuit current	100 A
Ready delay t <sub>v</sub> max.	10 ms
Residual current I <sub>r</sub> max.	80 µA
Ripple max. (% of U <sub>e</sub> )	15 %
Utilization category	DC -13
Voltage drop static max.	3.5 V

### Environmental conditions

Ambient temperature	-25...70 °C
Contamination scale	3
IP rating	IP67

Mechanical Cam Switches  
**BES 516-344-H2-Y**  
Order Code: **BES01ZK**

**BALLUFF**

**Functional safety**

MTTF (40 °C) 1620 a

**Interface**

Cable fitting, thread size M16x1.5  
Switching output NPN normally open (NO)

**Material**

Housing material Aluminium, Anodized  
Housing material, surface protection Anodized  
Material sensing surface PA 12

**Mechanical data**

Connection cross-section 2.5 mm<sup>2</sup>  
Dimension 42 x 22 x 48 mm  
Installation for flush mounting  
Tightening torque 3...4 Nm (M16x1.5)  
Tightening torque clamping screw 0.4 Nm

**Range/Distance**

Assured operating distance Sa 1. Switch position: 4 mm  
Hysteresis H max. (% of Sr) 15.0 %  
Range 5 mm  
Rated operating distance Sn 1. Switch position: 5 mm  
Real switching distance sr 5 mm  
Repeat accuracy max. (% of Sr) 5.0 %  
Temperature drift max. (% of 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**

