



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



### Basic features

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

### Display/Operation

<b>Function indicator</b>	yes
<b>Power indicator</b>	yes

### Electrical connection

<b>Cable diameter D</b>	3.80 mm
<b>Cable length L</b>	3 m
<b>Conductor cross-section</b>	0.14 mm <sup>2</sup>
<b>Connection type</b>	Cable, 3.00 m, PUR
<b>Number of conductors</b>	4
<b>Polarity reversal protected</b>	yes
<b>Protection against device mix-ups</b>	yes
<b>Short-circuit protection</b>	yes

### Electrical data

<b>Load capacitance max. at U<sub>e</sub></b>	1 µF
<b>Min. operating current I<sub>m</sub></b>	0 mA
<b>No-load current I<sub>o</sub> max., damped</b>	15 mA
<b>No-load current I<sub>o</sub> max., undamped</b>	15 mA
<b>Operating voltage U<sub>b</sub></b>	10...30 VDC
<b>Output resistance R<sub>a</sub></b>	33.0 kOhm + D
<b>Rated insulation voltage U<sub>i</sub></b>	75 V DC
<b>Rated operating current I<sub>e</sub></b>	200 mA
<b>Rated operating voltage U<sub>e</sub> DC</b>	24 V
<b>Rated short circuit current</b>	100 A
<b>Ready delay t<sub>v</sub> max.</b>	20 ms
<b>Residual current I<sub>r</sub> max.</b>	80 µA
<b>Ripple max. (% of U<sub>e</sub>)</b>	10 %
<b>Switching frequency</b>	150 Hz
<b>Utilization category</b>	DC -13
<b>Voltage drop static max.</b>	2.5 V

### Environmental conditions

<b>Ambient temperature</b>	-25...70 °C
<b>Contamination scale</b>	3
<b>EN 60068-2-27, Shock</b>	Half-sinus, 30 g <sub>n</sub> , 11 ms
<b>EN 60068-2-6, Vibration</b>	55 Hz, amplitude 1 mm, 3x30 min
<b>IP rating</b>	IP67

### Functional safety

<b>MTTF (40 °C)</b>	675 a
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Inductive Sensors  
**BES R01ZC-PAC70B-BP03**  
Order Code: **BES01W4**

**BALLUFF**

**Interface**

**Switching output** PNP normally open/normally closed (NO/NC)

**Material**

**Housing material** Zinc, Die casting  
**Material jacket** PUR  
**Material sensing surface** PA 12

**Mechanical data**

**Dimension** 32 x 20 x 8 mm  
**Installation** for flush mounting  
**Size** 32x20x8

**Range/Distance**

**Assured operating distance Sa** 5.6 mm  
**Hysteresis H max. (% of Sr)** 15.0 %  
**Rated operating distance Sn** 7 mm  
**Real switching distance sr** 7 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.  
LED yellow: Function  
LED green: Power  
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**

