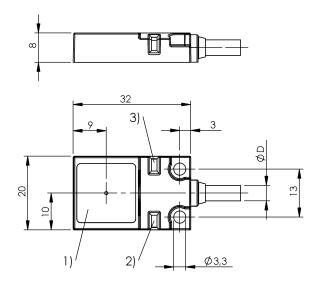
## Inductive Sensors BES R01ZC-PAC70B-BP03 Order Code: BES01W4

# BALLUFF



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



#### **Basic features**

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

| Function indicator | yes |
|--------------------|-----|
| Power indicator    | yes |

#### **Electrical connection**

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

#### **Electrical data**

| Load capacitance max. at Ue       | 1 μF          |  |  |
|-----------------------------------|---------------|--|--|
| Min. operating current Im         | 0 mA          |  |  |
| No-load current Io max., damped   | 15 mA         |  |  |
| No-load current Io max., undamped | 15 mA         |  |  |
| Operating voltage Ub              | 1030 VDC      |  |  |
| Output resistance Ra              | 33.0 kOhm + D |  |  |
| Rated insulation voltage Ui       | 75 V DC       |  |  |
| Rated operating current le        | 200 mA        |  |  |
| Rated operating voltage Ue DC     | 24 V          |  |  |
| Rated short circuit current       | 100 A         |  |  |
| Ready delay tv max.               | 20 ms         |  |  |
| Residual current Ir max.          | 80 μΑ         |  |  |
| Ripple max. (% of Ue)             | 10 %          |  |  |
| Switching frequency               | 150 Hz        |  |  |
| Utilization category              | DC -13        |  |  |
| Voltage drop static max.          | 2.5 V         |  |  |
|                                   |               |  |  |

## Environmental conditions

| Ambient temperature     | -2570 °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)

675 a

## Inductive Sensors BES R01ZC-PAC70B-BP03 Order Code: BES01W4



| Interface                    |   | Mechanical data                   |   |
|------------------------------|---|-----------------------------------|---|
| Switching output<br>Material | PNP normally open/normally closed (NO/NC) | Dimension<br>Installation<br>Size | 32 x 20 x 8 mm<br>for flush mounting<br>32x20x8 |
| Housing material             | Zinc, Die casting                         | Range/Distance                    |   |
| Material jacket              | PUR                                       | Assured operating distance Sa     | 5.6 mm  |
| Material sensing surface     | PA 12                                     | 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 (Schematic)

