



### Basic features

|                     |                             |
|---------------------|-----------------------------|
| Approval/Conformity | CE<br>UKCA<br>cULus<br>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 Ue                   | 1.0 µF      |
| No-load current I <sub>o</sub> max., damped   | 7 mA        |
| No-load current I <sub>o</sub> max., undamped | 2 mA        |
| Operating voltage U <sub>b</sub>              | 10...30 VDC |
| Output resistance R <sub>a</sub>              | 33.0 kOhm   |
| Protection class                              | II          |
| Rated insulation voltage U <sub>i</sub>       | 250 V AC    |
| Rated operating current I <sub>e</sub>        | 200 mA      |
| Rated operating voltage U <sub>e</sub> DC     | 24 V        |
| Rated short circuit current                   | 100 A       |
| Ready delay t <sub>v</sub> max.               | 25 ms       |
| Residual current I <sub>r</sub> max.          | 10 µA       |
| Ripple max. (% of U <sub>e</sub> )            | 10 %        |
| Switching frequency                           | 4000 Hz     |
| Utilization category                          | DC -13      |
| Voltage drop static max.                      | 2.5 V       |

### Environmental conditions

|                         |  |
|-------------------------|--|
| Ambient temperature     | -25...70 °C, Temperature drift max. (% Sr) > 15% valid from 50...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, 3x30 min  |
| IP rating               | IP68   |

### Functional safety

|              |       |
|--------------|-------|
| MTTF (40 °C) | 595 a |
|--------------|-------|

Inductive Sensors  
**BES G06EF-PSC40F-S49G**  
Order Code: BES01NP



**Interface**

Switching output PNP normally open (NO)

**Material**

Housing material Stainless steel  
Material sensing surface PBT

**Mechanical data**

Dimension Ø 6.5 x 50 mm  
Installation non-flush  
Size D6.5

**Range/Distance**

Assured operating distance Sa 3.2 mm  
Hysteresis H max. (% of Sr) 15.0 %  
Rated operating distance Sn 4 mm  
Real switching distance sr 4 mm  
Repeat accuracy max. (% of Sr) 5.0 %  
Switching distance marking ■■  
Temperature drift max. (% of Sr) 10 %  
Tolerance Sr ±10 %

**Remarks**

Not for flush mounting: See installation instructions for inductive sensors with extended range 939229.

The sensor is functional again after the overload has been eliminated.

In rare cases, the function of the sensor may be impaired during contact with water  
it is fully functional again after drying

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**

