



1) Pressure resistant area



### Basic features

|                     |                     |
|---------------------|---------------------|
| Approval/Conformity | CE<br>cULus<br>WEEE |
| Basic standard      | IEC 60947-5-2       |

### Display/Operation

|                    |     |
|--------------------|-----|
| Function indicator | yes |
| Power indicator    | no  |

### Electrical connection

|                                   |                            |
|-----------------------------------|----------------------------|
| Connection                        | M12x1-Male, 4-pin, A-coded |
| 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 I <sub>m</sub>         | 0 mA        |
| No-load current I <sub>o</sub> max., damped   | 16 mA       |
| No-load current I <sub>o</sub> max., undamped | 9 mA        |
| Operating voltage U <sub>b</sub>              | 10...30 VDC |
| Output resistance R <sub>a</sub>              | 47.0 kOhm   |
| Rated insulation voltage U <sub>i</sub>       | 75 V DC     |
| 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.               | 60 ms       |
| Residual current I <sub>r</sub> max.          | 100 µA      |
| Ripple max. (% of U <sub>e</sub> )            | 15 %        |
| Switching frequency                           | 400 Hz      |
| Utilization category                          | DC -13      |
| Voltage drop static max.                      | 2 V         |

### Environmental conditions

|                         |                                       |
|-------------------------|---------------------------------------|
| Ambient temperature     | -25...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               | IP67                                  |

### Functional safety

|              |       |
|--------------|-------|
| MTTF (40 °C) | 335 a |
|--------------|-------|

Inductive Sensors  
**BES M12EG1-PSC60Z-S04G-S11**  
**Order Code: BES02WH**



**Interface**

Switching output PNP normally open (NO)

**Material**

Housing material Stainless steel  
 Material sensing surface Stainless steel

**Mechanical data**

Dimension Ø 12 x 60 mm  
 Installation quasi-flush  
 Pressure rating max. 80 bar  
 Pressure rating, note Pressure-resistant  
 Size M12x1  
 Tightening torque 10 Nm ±10 %

**Range/Distance**

Assured operating distance Sa 4.9 mm  
 Hysteresis H max. (% of Sr) 15.0 %  
 Rated operating distance Sn 6 mm  
 Real switching distance sr 6 mm  
 Repeat accuracy max. (% of Sr) 5.0 %  
 Switching distance marking ■■■  
 Temperature drift max. (% of Sr) 10 %  
 Tolerance Sr ±10 %

**Remarks**

The sensor is functional again after the overload has been eliminated.  
 When installing in metals the switching distance may be reduced by up to 50%. Installation Instructions 841020.  
 Installation permitted only in clamp without positive stop.  
 LED flashes between 100% and approx. 70% of Sr  
 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**

