



1) O-Ring with thrust ring



### Basic features

|                     |   |
|---------------------|---|
| Approval/Conformity | CE<br>UKCA<br>ATEX<br>WEEE                            |
| Basic standard      | EN 60079-0:2006<br>EN 60079-15:2005<br>IEC 60947-5-2  |
| Ex marking          | ATEX: EX II 3G Ex nA II T4 Ta:<br>-25 °C ≤ Ta ≤ 80 °C |

### Display/Operation

|                    |    |
|--------------------|----|
| Function indicator | no |
| 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 Im         | 0 mA        |
| No-load current Io max., damped   | 8 mA        |
| No-load current Io max., undamped | 3 mA        |
| Operating voltage Ub              | 10...30 VDC |
| Output resistance Ra              | 150.0 kOhm  |
| Rated insulation voltage Ui       | 75 V DC     |
| Rated operating current Ie        | 200 mA      |
| Rated operating voltage Ue DC     | 24 V        |
| Rated short circuit current       | 100 A       |
| Ready delay tv max.               | 50 ms       |
| Residual current Ir max.          | 10 µA       |
| Ripple max. (% of Ue)             | 15 %        |
| Switching frequency               | 2000 Hz     |
| Utilization category              | DC -13      |
| Voltage drop static max.          | 2.1 V       |

### Environmental conditions

|                         |                                 |
|-------------------------|---------------------------------|
| Ambient temperature     | -25...80 °C                     |
| Contamination scale     | 3                               |
| EN 60068-2-27, Shock    | Half-sinus, 30 gn, 11 ms        |
| EN 60068-2-6, Vibration | 55 Hz, amplitude 1 mm, 3x30 min |
| IP rating               | IP68                            |

### Functional safety

|              |       |
|--------------|-------|
| MTTF (40 °C) | 855 a |
|--------------|-------|

**Inductive Sensors**  
**BES 516-300-S249-NEX-S4-D**  
**Order Code: BHS002W**



**Interface**

Switching output PNP normally open (NO)

**Material**

Housing material Stainless steel  
 Material sensing surface EP  
 Support ring material PTFE

**Range/Distance**

Assured operating distance Sa 1.2 mm  
 Hysteresis H max. (% of Sr) 15.0 %  
 Rated operating distance Sn 1.5 mm  
 Real switching distance sr 1.5 mm  
 Repeat accuracy max. (% of Sr) 5.0 %  
 Temperature drift max. (% of Sr) 10 %  
 Tolerance Sr ±10 %

**Mechanical data**

Dimension Ø 12 x 56 mm  
 Installation for flush mounting  
 Mounting part M12x1  
 Pressure rating max. 500 bar  
 Pressure rating, note oil pressure rated  
 Sealing ring, size 5.3 x 2.4 mm  
 Size M12x1  
 Tightening torque 15 Nm ±10 %

**Remarks**

ATTENTION: The connection must be made only following the currently prevailing norms - EN 60079-0/-14/-15 for II 3 G Ex nA conformal M12-connection. The operating guide document number 863218 must be observed.  
 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**

