



1) O-Ring with thrust ring



### Basic features

Approval/Conformity	CE UKCA ATEX WEEE
Base type deviation	Pressure rated to 350 bar
Basic standard	EN 60079-0:2006 EN 60079-15:2005 IEC 60947-5-2
Ex marking	ATEX: EX II 3G Ex nA II T4 Ta: -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	0.5 μF
No-load current I <sub>o</sub> max., damped	10 mA
No-load current I <sub>o</sub> max., undamped	1 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Output resistance R <sub>a</sub>	33.0 kOhm + D
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.	10 ms
Residual current I <sub>r</sub> max.	10 μA
Ripple max. (% of U <sub>e</sub> )	15 %
Switching frequency	1000 Hz
Utilization category	DC -13
Voltage drop static max.	1.5 V

### Environmental conditions

Ambient temperature	-25...80 °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)	720 a
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Inductive Sensors  
**BES 516-300-S321-NEX-S4-D**  
Order Code: BHS004M

**BALLUFF**

**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 78 mm  
Installation                                for flush mounting  
Mounting part                             M12x1  
Pressure rating max.                    350 bar  
Pressure rating, note                    oil pressure rated  
Sealing ring, size                        5.85 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**

