



1) O-Ring with thrust ring



### Basic features

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

### 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	3 mA
No-load current Io max., undamped	8 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.	2.2 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
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Inductive Sensors  
**BES 516-300-S305-S4-D**  
Order Code: BHS004F

**BALLUFF**

**Interface**

Switching output PNP normally closed (NC)

**Material**

Housing material 1.4104 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  $\pm 10$  %

**Mechanical data**

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

**Remarks**

Installation Instructions 614804

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

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**

