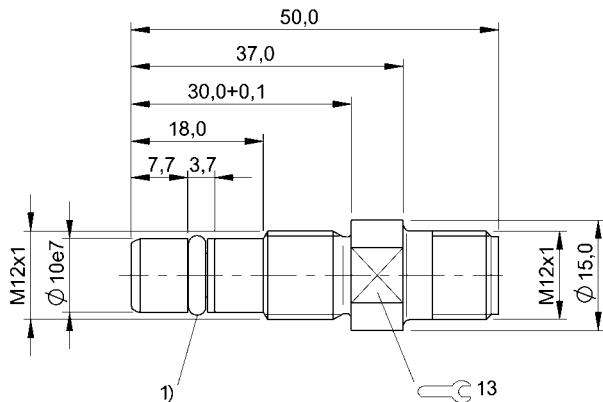


Inductive Sensors

BES 516-300-S324-S4-D

Order Code: BHS004T

BALLUFF

1) O-Ring with thrust ring

**Basic features**

Approval/Conformity	CE UKCA WEEE
Base type deviation	Pressure rated to 350 bar
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 I _m	0 mA
No-load current I _o max., damped	8 mA
No-load current I _o max., undamped	3 mA
Operating voltage U _b	10...30 VDC
Output resistance R _a	150.0 kOhm
Rated insulation voltage U _i	75 V DC
Rated operating current I _e	200 mA
Rated operating voltage U _e DC	24 V
Rated short circuit current	100 A
Ready delay t _v max.	50 ms
Residual current I _r max.	10 µA
Ripple max. (% of U _e)	15 %
Switching frequency	1000 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 g _n , 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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Interface

Switching output PNP normally open (NO)

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	±10 %

Mechanical data

Dimension Ø 12 x 50 mm
Installation for flush mounting
Mounting length 12.00 mm
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 20 Nm ±10 %

Remarks

The sensor is functional again after the overload has been eliminated.
Overvoltage protection using bi-directional Zener diode between Plus (+) and Minus (-).
Pressure cycle rating: typ. 1 mil. changes 350 bar 90°C on Balluff test stand per BWN Pr. 12.
614804
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

