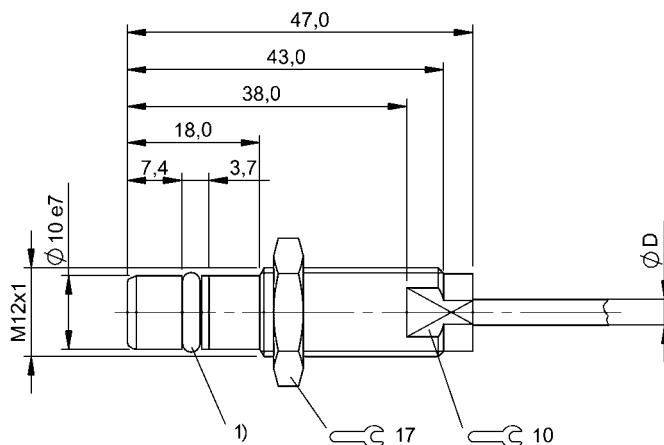


Inductive Sensors

BES 516-300-S240-D-PU-03

Order Code: BHS002H

BALLUFF

1) O-Ring with thrust ring

**Basic features**

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

Display/Operation

Function indicator	no
Power indicator	no

Electrical connection

Cable diameter D	3.50 mm
Cable length L	3 m
Conductor cross-section	0.14 mm ²
Connection type	Cable, 3.00 m, PUR
Number of conductors	3
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	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 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 Stainless steel
Material jacket PUR
Material sensing surface EP
Support ring material PTFE

Mechanical data

Dimension Ø 12 x 47 mm
Installation for flush mounting
Mounting length 20.00 mm
Mounting part M12x1
Pressure rating max. 500 bar
Pressure rating, note oil pressure rated
Sealing ring, size 5.85 x 2.4 mm
Size M12x1
Tightening torque 20 Nm ±10 %

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 %

Remarks

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

Installation Instructions 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.

Wiring Diagrams

