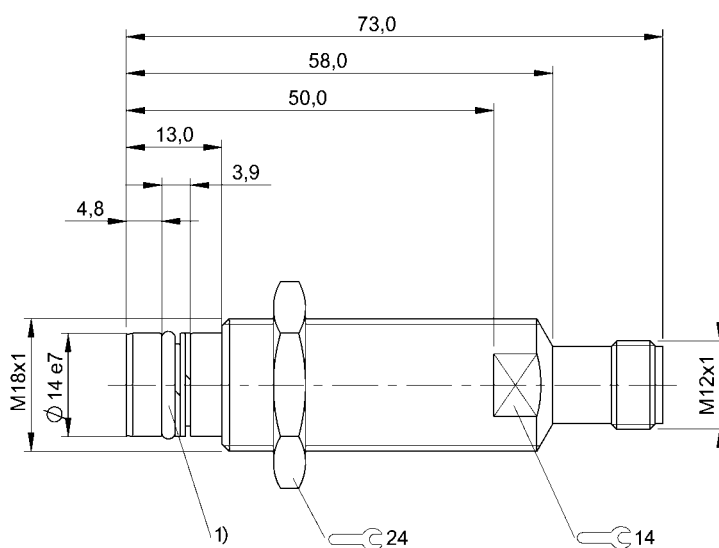


Inductive Sensors
BES 516-300-S144-S4-D
Order Code: BHS001N

BALLUFF



1) O-Ring with thrust ring



Basic features

Approval/Conformity	CE UKCA WEEE
Base type deviation	Housing
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	0.5 μ F
Min. operating current I _m	0 mA
No-load current I _o max., damped	10 mA
No-load current I _o max., undamped	1 mA
Operating voltage U _b	10...30 VDC
Output resistance R _a	33.0 kOhm + D
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.	10 ms
Residual current I _r max.	10 μ A
Ripple max. (% of U _e)	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 _n , 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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Interface

Switching output PNP normally open (NO)

Material

Gasket, material NBR 60-80
 Housing material Stainless steel
 Material sensing surface EP
 Support ring material PTFE

Mechanical data

Dimension $\varnothing 18 \times 73$ mm
 Installation for flush mounting
 Mounting length 37.00 mm
 Mounting part M18x1
 Pressure rating max. 350 bar
 Pressure rating, note oil pressure rated
 Sealing ring, size 11 x 1.8 mm
 Size M18x1
 Tightening torque 40 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

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

