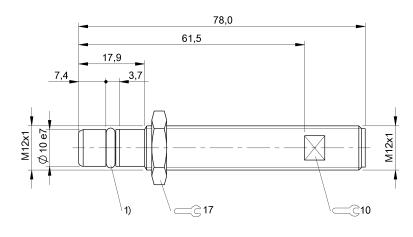
Inductive Sensors BES 516-300-S135-S4-D Order Code: BHS001L

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

| Connection | M12x1-Male, 4-pin, A-coded |
|-----------------------------------|----------------------------|
| Polarity reversal protected | yes |
| Protection against device mix-ups | yes |
| Short-circuit protection | yes |
| с I | <u> </u> |

Electrical data

| Load capacitance max. at Ue | 0.5 μF |
|-----------------------------------|---------------|
| • | |
| Min. operating current Im | 0 mA |
| No-load current lo max., damped | 10 mA |
| No-load current lo max., undamped | 1 mA |
| Operating voltage Ub | 1030 VDC |
| Output resistance Ra | 33.0 kOhm + D |
| Rated insulation voltage Ui | 75 V DC |
| Rated operating current le | 200 mA |
| Rated operating voltage Ue DC | 24 V |
| Rated short circuit current | 100 A |
| Ready delay tv max. | 10 ms |
| Residual current Ir max. | 10 µA |
| Ripple max. (% of Ue) | 15 % |
| Switching frequency | 1000 Hz |
| Utilization category | DC -13 |
| Voltage drop static max. | 1.5 V |
| | |

Environmental conditions

| Ambient temperature | -2580 °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

eCl@ss 9.1: 27-27-01-01 ETIM 6.0: EC002714 BHS001L_0.74_2023-06-27

Inductive Sensors BES 516-300-S135-S4-D Order Code: BHS001L

BALLUFF

Interface

| Switching output | PNP normally open (NO) |
|--------------------------|------------------------|
| Material | |
| Housing material | Stainless steel |
| Material sensing surface | EP |
| Support ring material | PTFE |
| Mechanical data | |
| Dimension | Ø 12 x 78 mm |

| Ø 12 x 78 mm |
|--------------------|
| for flush mounting |
| M12x1 |
| 500 bar |
| oil pressure rated |
| 5.85 × 2.4 mm |
| |

M12x1

15 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

Tightening torque

Sealing Size

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

