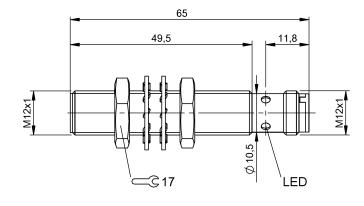
Inductive Sensors BES M12MI-NSC40B-S04G Order Code: BES0059

BALLUFF









Basic features

| Approval/Conformity Basic standard Trademark | CE cULus EAC WEEE IEC 60947-5-2 Global |
|--|---|
| Display/Operation | |
| Function indicator Power indicator | yes no |

Electrical connection

| M12x1-Male, 4-pin, A-coded |
|----------------------------|
| yes |
| yes |
| yes |
| |

Electrical data

| Load capacitance max. at Ue | 1 μF |
|-----------------------------------|---------------|
| Min. operating current Im | 0 mA |
| No-load current lo max., damped | 5 mA |
| No-load current lo max., undamped | 2 mA |
| Operating voltage Ub | 1030 VDC |
| Output resistance Ra | 33.0 kOhm + D |
| Protection class | 11 |
| Rated insulation voltage Ui | 250 V AC |
| Rated operating current le | 200 mA |
| Rated operating voltage Ue DC | 24 V |
| Rated short circuit current | 100 A |
| Ready delay tv max. | 21 ms |
| Residual current Ir max. | 10 µA |
| Ripple max. (% of Ue) | 15 % |
| Switching frequency | 2500 Hz |
| Utilization category | DC -13 |
| Voltage drop static max. | 1.5 V |
| | |

Environmental conditions

| Ambient temperature | -2570 °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 |
| Protection degree | IP68 |

Functional safety

MTTF (40 °C)

555 a

Inductive Sensors BES M12MI-NSC40B-S04G **Order Code: BES0059**



Material

| Material | | Output/Interface | |
|--------------------------|--------------------|----------------------------------|------------------------|
| Housing material | Brass | Switching output | NPN normally open (NO) |
| Material sensing surface | PBT | | |
| Surface protection | Nickel-free coated | Range/Distance | |
| | | Assured operating distance Sa | 3.2 mm |
| Mechanical data | | Hysteresis H max. (% of Sr) | 15.0 % |
| Dimension | Ø 12 x 65 mm | Rated operating distance Sn | 4 mm |
| Installation | for flush mounting | Real switching distance sr | 4 mm |
| Size | M12x1 | Repeat accuracy max. (% of Sr) | 5.0 % |
| Tightening torque | 10 Nm | Switching distance marking | |
| | | Temperature drift max. (% of Sr) | 10 % |
| | | Tolerance Sr | ±10 % |

Remarks

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

