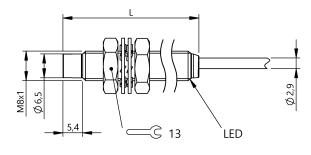
Inductive Sensors BES 516-384-EO-C-03 **Order Code: BES01M8**

BALLUFF









Basic features

| Approval/Conformity Basic standard | CE EAC cULus WEEE |
|---------------------------------------|----------------------------|
| Basic standard | IEC 60947-5-2 |
| Display/Operation | |
| Function indicator | yes |
| Power indicator | no |
| Electrical connection | |
| Cable diameter D | 3.00 mm |
| Cable length L | 3 m |
| Conductor cross-section | 0.14 mm ² |
| Connection type | Cable, 3.00 m, PVC |

Cable, 3.00 m, PVC 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 | 1.0 μF |
|-----------------------------------|-----------|
| No-load current lo max., damped | 7 mA |
| No-load current lo max., undamped | 2 mA |
| Operating voltage Ub | 1030 VDC |
| Output resistance Ra | 33.0 kOhm |
| Protection class | II |
| 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. | 25 ms |
| Residual current Ir max. | 10 µA |
| Ripple max. (% of Ue) | 10 % |
| Switching frequency | 5000 Hz |
| Utilization category | DC -13 |
| Voltage drop static max. | 2.5 V |
| | |

Environmental conditions

| Ambient temperature | -4085 °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)

595 a

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Material

| Material | aterial Output/Interface | | |
|--------------------------|--------------------------|----------------------------------|------------------------|
| Housing material | Stainless steel | Switching output | NPN normally open (NO) |
| Material jacket | PVC | | |
| Material sensing surface | PBT | Range/Distance | |
| | | Assured operating distance Sa | 2 mm |
| Mechanical data | | Hysteresis H max. (% of Sr) | 15.0 % |
| Dimension | Ø 8 x 45 mm | Rated operating distance Sn | 2.5 mm |
| Installation | non-flush | Real switching distance sr | 2.5 mm |
| Size | M8x1 | Repeat accuracy max. (% of Sr) | 5.0 % |
| Tightening torque | 8 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.

Wiring Diagrams

