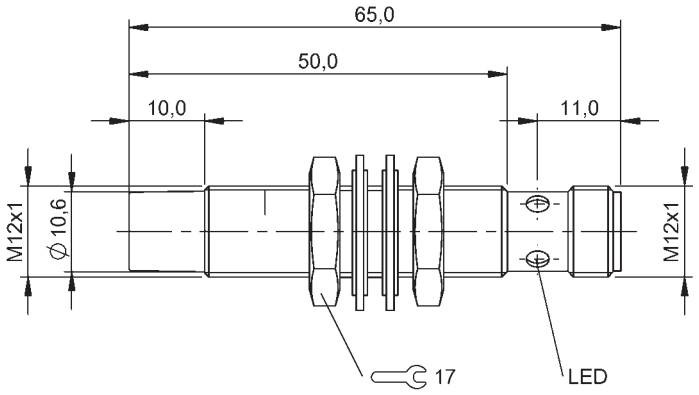
Inductive sensor

**BES M12ML-PSC80E-S04G-W**
**BES02K5**

BALLUFF
sensors worldwide




- **PNP**
- **Normally open (NO)**
- **8.00 mm**
- **Non embeddable**
- **Connector, M12x1-S04**

LISTED IND. CONT. EQ. 81U2 for use in the secondary of a class 2 source of supply

IND. CONT. EQ 81U2 for use in the secondary of a class 2 source of supply Environmental - Type 1 Enclosure

**General attributes**

| | |
|---|---|
| Additional features | Weld-spatter resistant |
| | Factor 1 |
| Approvals / Conformity | CE |
| | cULus |
| | EAC |
| Basic standard | IEC 60947-5-2 |
| Enclosure Type per IEC 60529 | IP67 |
| Function indicator | Yes |
| Magnetic field immune | immune to magnetic DC and AC fields |
| Operating distance marking | ■■ |
| Polarity reversal protected | Yes |
| Power indicator | No |
| Protection Class | II |
| Short circuit protected | Yes |
| Trademark | Factor 1 |

**Electrical attributes**

| | |
|---|---|
| Connection type | Connector |
| Eff. operating current Ie | 200 mA |
| Eff. operating voltage Ue DC | 24.0 V |
| Electrical version | DC, direct current |
| Load capacitance max. (at Ue) | 1.000 µF |
| Magnetic field strength | 100 kA/m |
| Max. no-load cur. Io undamped | 10.0 mA |
| Minimum operating current Im | 0 mA |
| No-load current Io damped max. | 15.0 mA |
| Operating voltage UB max. DC [V] | 30.0 V |
| Operating voltage UB min. DC [V] | 10.0 V |
| Rated insulation voltage Ui | 250 VAC |
| Rated short circuit current | 100 A |
| Ripple max. (% of Ue) | 10 % |
| Switching freq. f max. (at Ue) | 2000 Hz |
| Switching function | Normally open (NO) |
| Switching output | PNP |
| Voltage drop static max. | 2.5 V |

**Mechanical attributes**

| | |
|---|---|
| Ambient temperature Ta max. | 70 °C |
| Ambient temperature Ta min. | -25 °C |
| Assured operating distance Sa | 6.50 mm |
| Connector type | M12x1-S04 |
| Depth | 65.0 mm |
| Diameter d1 | M12x1 |
| Eff. operating distance Sr | 8.00 mm |
| Housing material | CuZn |
| Mech. installation condition | Non embeddable |
| Mounting length | 40.0 mm |
| Rated operating distance Sn [mm] | 8.00 mm |
| Sensing face material | LCP + PTFE |
| Surface protection | PTFE coating |
| Tightening torque | 8 Nm |

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

