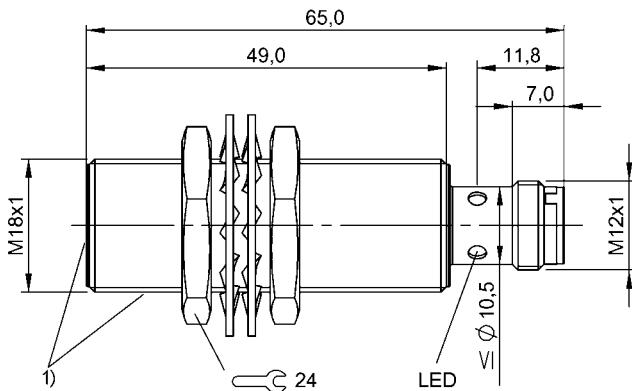


Inductive Sensors

BES M18EI-PSC72B-S04G-S01

Order Code: BES02NK

BALLUFF

1) Pressure resistant area

**Basic features**

| | |
|-----------------------------------|-----------------------------------|
| Additional features | Housing resistant to weld spatter |
| Approval/Conformity | CE UKCA cULus WEEE |
| Basic standard | IEC 60947-5-2 |
| Display/Operation | |
| Function indicator | yes |
| 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 | 1.0 μ F |
| Min. operating current I _m | 0 mA |
| No-load current I _o max., damped | 6 mA |
| No-load current I _o max., undamped | 2 mA |
| Operating voltage U _b | 10...30 VDC |
| Output resistance R _a | 100.0 kOhm |
| 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. | 23 ms |
| Residual current I _r max. | 10 μ A |
| Ripple max. (% of U _e) | 10 % |
| Switching frequency | 350 Hz |
| Utilization category | DC-13 |
| Voltage drop static max. | 2.0 V |

Environmental conditions

| | |
|-------------------------|---------------------------------------|
| Ambient temperature | -25...70 °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 | IP67 |

Functional safety

| | |
|--------------|-------|
| MTTF (40 °C) | 770 a |
|--------------|-------|

Interface

Switching output PNP normally open (NO)

Material

Housing material Stainless steel, PTFE coated

Material sensing surface Stainless steel

Mechanical data

Dimension Ø 18 x 65 mm

Installation for flush mounting

Mounting length 49.00 mm

Pressure rating max. 40 bar

Pressure rating, note Pressure-resistant

Size M18x1

Tightening torque 25 Nm ±10 %

Range/Distance

Assured operating distance Sa 5.2 mm

Hysteresis H max. (% of Sr) 20.0 %

Rated operating distance Sn 7.2 mm

Real switching distance sr 7.2 mm

Repeat accuracy max. (% of Sr) 5.0 %

Switching distance marking ■■

Temperature drift max. (% of Sr) 20 %

Tolerance Sr ±10 %

Remarks

With connector, e.g. BKS-S 20... total length = switch length +18 mm.

When installing in non-ferromagnetic metals, the distance x must be considered. This dimension x is described in the document "BES 2SN STEELFACE". Since the nuts supplied are made of non-ferromagnetic metal, the specified dimension x also applies here. Mounting, where the nuts are close to the active surface, is not intended.

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

Optical irregularities on the coating have no effect on function.

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

