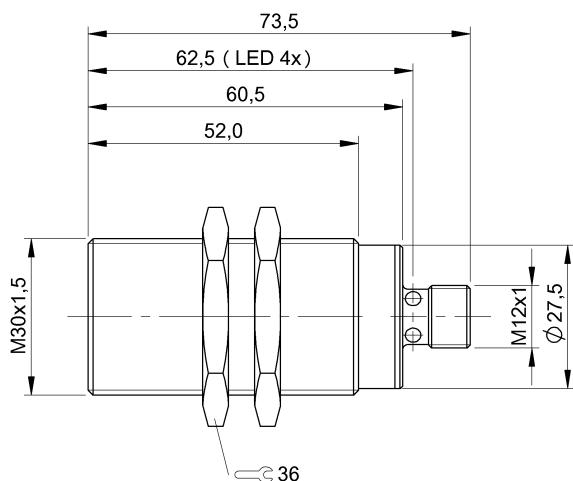


## Inductive Sensors

BES M30MI1-POC22B-S04G

Order Code: BES02YL

**BALLUFF****Basic features**

Approval/Conformity	CE 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 µF
Min. operating current I <sub>m</sub>	0 mA
No-load current I <sub>o</sub> max., damped	10 mA
No-load current I <sub>o</sub> max., undamped	10 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Output resistance R <sub>a</sub>	47.0 kOhm
Rated insulation voltage U <sub>i</sub>	75 V DC
Rated operating current I <sub>e</sub>	200 mA
Rated operating voltage U <sub>e</sub> DC	24 V
Rated short circuit current	100 A
Ready delay t <sub>v</sub> max.	200 ms
Residual current I <sub>r</sub> max.	100 µA
Ripple max. (% of U <sub>e</sub> )	20 %
Switching frequency	200 Hz
Utilization category	DC-13
Voltage drop static max.	2 V

**Environmental conditions**

Ambient temperature	-25...70 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 g <sub>n</sub> , 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP67

**Functional safety**

MTTF (40 °C)	390 a
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**Interface**

Switching output	PNP normally closed (NC)
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#### Material

Housing material	Brass, Chrome-plated
Material sensing surface	PBT

#### Mechanical data

Dimension	Ø 30 x 73.5 mm
Installation	quasi-flush
Mounting length	52.00 mm
Size	M30x1.5
Tightening torque	70 Nm

#### Range/Distance

Assured operating distance Sa	17.6 mm
Hysteresis H max. (% of Sr)	10.0 %
Rated operating distance Sn	22 mm
Real switching distance sr	22 mm
Repeat accuracy max. (% of Sr)	5.0 %
Switching distance marking	■■■
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

#### Remarks

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

Quasi-flushed: See installation instructions for inductive sensors with extended range 825356.

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

