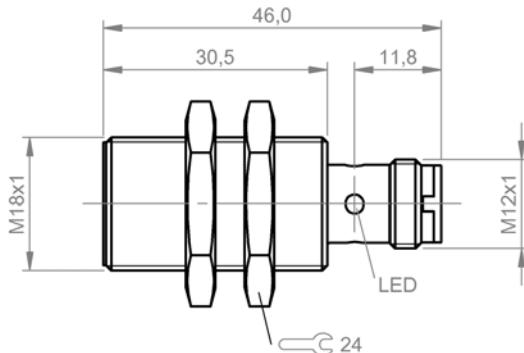


Inductive Sensors

BES M18ME-POC50B-S04G-003

Order Code: BES00EU

**BALLUFF**

#### Basic features

Approval/Conformity	CE UKCA cULus WEEE
Basic standard	IEC 60947-5-2
Trademark	Global

#### Display/Operation

Function indicator	yes
Power indicator	no

#### Electrical connection

Connection	M12x1-Male, 3-pin, A-coded
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

#### Electrical data

Load capacitance max. at Ue	0.5 $\mu$ F
Min. operating current I <sub>m</sub>	0 mA
No-load current I <sub>0</sub> max., damped	2 mA
No-load current I <sub>0</sub> max., undamped	8 mA
Operating voltage U <sub>b</sub>	10...30 VDC
Output resistance R <sub>a</sub>	33.0 kOhm + D
Protection class	II
Rated insulation voltage U <sub>i</sub>	250 V AC
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.	30 ms
Residual current I <sub>r</sub> max.	10 $\mu$ A
Ripple max. (% of U <sub>e</sub> )	15 %
Switching frequency	2000 Hz
Utilization category	DC-13
Voltage drop static max.	2.5 V

#### Environmental conditions

Ambient temperature	-40...85 °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	IP68

#### Functional safety

MTTF (40 °C)	465 a
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#### Interface

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

Housing material	Brass, Nickel-free coated
Material sensing surface	PBT

**Mechanical data**

Dimension	Ø 18 x 46 mm
Installation	for flush mounting
Mounting length	30.5 mm
Size	M18x1
Tightening torque	25 Nm

**Range/Distance**

Assured operating distance Sa	4.0 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	5.0 mm
Real switching distance sr	5 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	15 %
Tolerance Sr	±10 %

**Remarks**

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

UL-MARKINGS: - For use in NFPA 79 Applications only - Adapters providing field wiring means are available from the manufacturer. Refer to manufacturers information.

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**