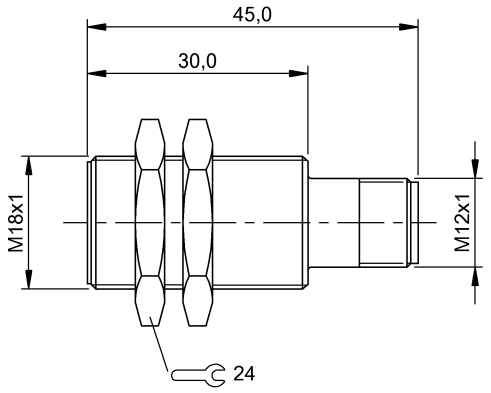
Inductive Sensors

BES M18EE1-PSY50B-S04G-L01
Order Code: BES0441



Basic features

Approval/Conformity	CE UKCA cULus Ecolab WEEE
Basic standard	IEC 60947-5-2
Trademark	Proxinox®

Display/Operation

Function indicator	no
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 Im	0 mA
No-load current Io max., damped	25 mA
No-load current Io max., undamped	12 mA
Operating voltage Ub	10...30 VDC
Output resistance Ra	2.2 kOhm + D
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	130 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Ready delay tv max.	15 ms
Residual current Ir max.	80 µA
Ripple max. (% of Ue)	15 %
Switching frequency	500 Hz
Utilization category	DC -13
Voltage drop static max.	3.5 V

Environmental conditions

Ambient temperature	-40...105 °C
Chemical resistance	6 % H2O2 solution 15 % H2O2 solution 3 % H2O2 solution
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	IP68, according to BWN Pr. 27
IP rating per DIN 40050	IP69K

Interface

Switching output	PNP normally open (NO)

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Material

Housing material	1.4571 stainless steel
Material sensing surface	PEEK

Mechanical data

Dimension	Ø 18 x 45 mm
Installation	for flush mounting
Mounting length	30.00 mm
Size	M18x1
Tightening torque	30 Nm

Range/Distance

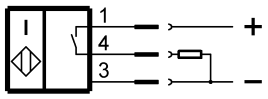
Assured operating distance Sa	4 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	5 mm
Real switching distance sr	5 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Remarks

*Current reduction max. 30 min at: Ta ≥ 70 °C... ≤ 105 °C: Ie= 130 - 2.86x(Ta-70).
The sensor is functional again after the overload has been eliminated.

Connector Drawings

Wiring Diagrams (Schematic)



Technical Drawings