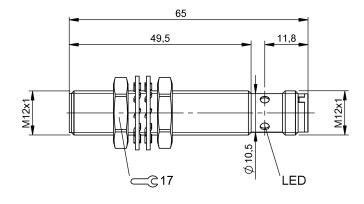
# Inductive Sensors BES M12MI-PAC40B-S04G Order Code: BES05F0

# BALLUFF





#### **Basic features**

Approval/Conformity	cULus CE UKCA WEEE
Basic standard	IEC 60947-5-2
Trademark	Global
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 μF
Min. operating current Im	0 mA
No-load current lo max., damped	7 mA
No-load current lo max., undamped	4 mA
Operating voltage Ub	1030 VDC
Output resistance Ra	100.0 kOhm
Protection class	П
Rated insulation voltage Ui	250 V AC
Rated operating current le	200 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Ready delay tv max.	23 ms
Residual current Ir max.	50 µA
Ripple max. (% of Ue)	15 %
Switching frequency	3000 Hz
Utilization category	DC -13
Voltage drop static max.	1.5 V

#### Environmental conditions

Ambient temperature	-2570 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 g <sub>p</sub> , 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
IP rating	IP68, according to BWN Pr 20

#### Functional safety

MTTF (40 °C)

705 a

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3.2 mm 15.0 %  $4\,\text{mm}$  $4\,\text{mm}$ 5.0 % 10 % ±10 %

Interface		Range/Distance
Switching output Material	PNP normally open/normally closed (NO/NC)	Assured operating distance Sa Hysteresis H max. (% of Sr) Rated operating distance Sn Real switching distance sr Repeat accuracy max. (% of Sr) Switching distance marking Temperature drift max. (% of Sr) Tolerance Sr
Housing material Material sensing surface Mechanical data	Brass PBT	
Dimension Installation Mounting length Size Tightening torque	Ø 12 x 65 mm for flush mounting 49.50 mm M12x1 10 Nm	

Remarks	
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The sensor is functional again after the overload has been eliminated. 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 (Schematic)

