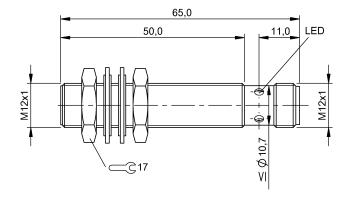
Inductive Sensors BES M12ML-PSC30A-S04G-W Order Code: BES02K3

BALLUFF



IND. CONT. EQ. 81U2 US Class 2 Type 1

Basic features

Additional features	Factor 1 Weld immune
Approval/Conformity	CE cULus EAC WEEE
Basic standard	IEC 60947-5-2
Trademark	Factor 1
Display/Operation	

ay

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
Magnetic field strength, interference field	100 kA/m
Min. operating current Im	0 mA
No-load current lo max., damped	15 mA
No-load current lo max., undamped	10 mA
Operating voltage Ub	1030 VDC
Output resistance Ra	33.0 kOhm
Protection class	II
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.	15 ms
Residual current Ir max.	80 μΑ
Ripple max. (% of Ue)	10 %
Switching frequency	2000 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 V

Environmental conditions

Ambient temperature	-2570 °C
Contamination scale	3
EN 60068-2-27, Shock	Half-sinus, 30 gn, 11 ms
EN 60068-2-6, Vibration	55 Hz, amplitude 1 mm, 3x30 min
Magnetic field immune	magnetic field immune (AC/DC)
Protection degree	IP67

Functional safety

MTTF (40 °C)

320 a

Inductive Sensors BES M12ML-PSC30A-S04G-W **Order Code: BES02K3**



Material

Material	Output/Interface		
Housing material	Brass	Switching output	PNP normally open (NO)
Material sensing surface	LCP/PTFE		
Surface protection	PTFE coated	Range/Distance	
		Assured operating distance Sa	2.4 mm
Mechanical data		Hysteresis H max. (% of Sr)	15.0 %
Dimension	Ø 12 x 65 mm	Rated operating distance Sn	3 mm
Installation	for flush mounting	Real switching distance sr	3 mm
Size	M12x1	Repeat accuracy max. (% of Sr)	5.0 %
Tightening torque	10 Nm	Switching distance marking	
		Temperature drift max. (% of Sr)	10 %
		Tolerance Sr	±10 %

Remarks

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

