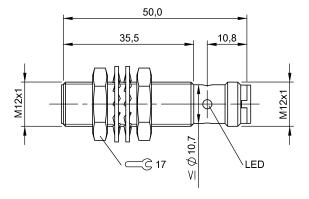
Inductive Sensors BES M12MF-USC30B-S04G Order Code: BES0041

BALLUFF



Basic features

Approval/Conformity	CE cULus EAC
Basic standard Trademark	WEEE IEC 60947-5-2 Global
Display/Operation	
Function indicator	yes
Power indicator	no
Electrical compaction	

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	1μF
Min. operating current Im	5 mA
Operating voltage Ub	1036 VDC
Rated insulation voltage Ui	75 V DC
Rated operating current le	100 mA
Rated operating voltage Ue DC	24 V
Rated short circuit current	100 A
Ready delay tv max.	50 ms
Residual current Ir max.	600 µA
Ripple max. (% of Ue)	15 %
Switching frequency	1300 Hz
Utilization category	DC -13
Voltage drop static max.	5.3 V

Environmental conditions

Ambient temperature	-2570 °C
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	IP67
Functional safety	
MTTF (40 °C)	315 a
Interface	
Switching output	non-polarized normally open (NO)

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Material

Housing material	Brass, Nickel-free coated
Material sensing surface	PA 12
Mechanical data	
Dimension	Ø 12 x 50 mm
Installation	for flush mounting
Size	M12x1
Tightening torque	15 Nm

Range/Distance

Assured operating distance Sa	2.4 mm
Hysteresis H max. (% of Sr)	20.0 %
Rated operating distance Sn	3 mm
Real switching distance sr	3 mm
Repeat accuracy max. (% of Sr)	5.0 %
Switching distance marking	
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Remarks

Specify maximum attainable switching frequency (not per IEC 60947-5-2) 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

