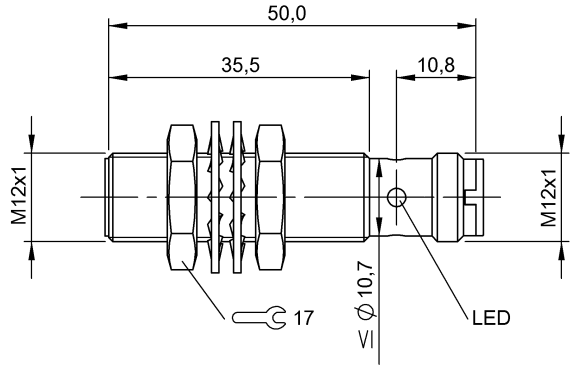
Inductive Sensors

BES M12MF-GSC30B-S04G
Order Code: BES003Z



Basic features

Approval/Conformity	CE cULus EAC 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 µF
Min. operating current Im	5 mA
Operating voltage Ub	10...36 VDC
Rated insulation voltage Ui	75 V DC
Rated operating current Ie	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.	4.2 V

Environmental conditions

Ambient temperature	-25...70 °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	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

