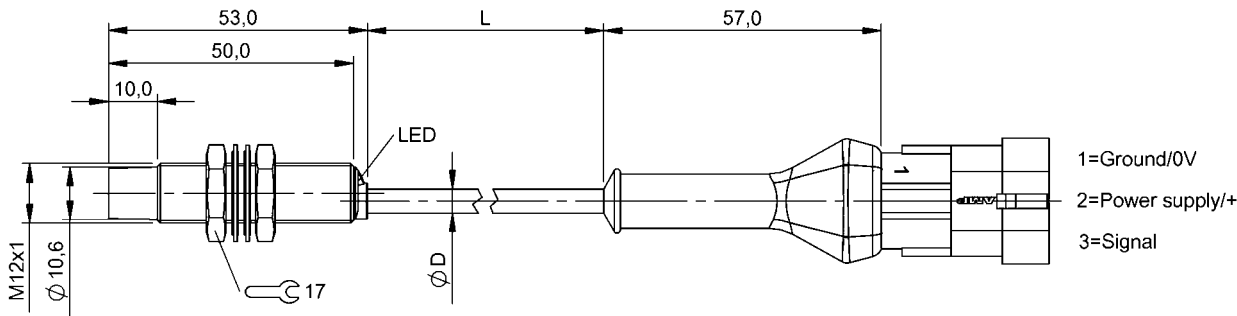


Inductive Sensors

BES M12MG-NSC80F-BP01-519
Order Code: BES046M

BALLUFF



Basic features

Approval/Conformity	CE UKCA cULus WEEE
Base type deviation	AMP Superseal
Basic standard	IEC 60947-5-2

Display/Operation

Function indicator	yes
Power indicator	no

Electrical connection

Cable diameter D	5.10 mm
Cable length L	1 m
Connection type	Cable with connector, 1.00 m, PUR
Polarity reversal protected	yes
Protection against device mix-ups	yes
Short-circuit protection	yes

Electrical data

Load capacitance max. at Ue	0.5 μ F
Min. operating current I _m	0 mA
No-load current I _o max., damped	14 mA
No-load current I _o max., undamped	3 mA
Operating voltage U _b	10...30 VDC
Output resistance R _a	33.0 kOhm + D
Protection class	II
Rated insulation voltage U _i	250 V AC
Rated operating current I _e	200 mA
Rated operating voltage U _e DC	24 V
Rated short circuit current	100 A
Ready delay t _v max.	20 ms
Residual current I _r max.	10 μ A
Ripple max. (% of U _e)	15 %
Switching frequency	800 Hz
Utilization category	DC -13
Voltage drop static max.	2.5 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)	585 a
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Interface

Switching output	NPN normally open (NO)
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Material

Housing material	Brass, Nickel-free coated
Material jacket	PUR
Material sensing surface	PBT

Mechanical data

Dimension	Ø 12 x 53 mm
Installation	non-flush
Mounting length	40.00 mm
Size	M12x1
Tightening torque	10 Nm

Range/Distance

Assured operating distance Sa	6.4 mm
Hysteresis H max. (% of Sr)	20.0 %
Rated operating distance Sn	8 mm
Real switching distance sr	8 mm
Repeat accuracy max. (% of Sr)	5.0 %
Switching distance marking	■ ■
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Remarks

Not for flush mounting: See installation instructions for inductive sensors with extended range 853924.
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.

Wiring Diagrams

