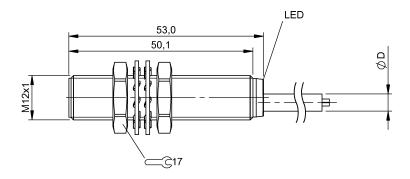
Inductive Sensors BES M12MI-NSC40B-BV03 Order Code: BES0057







Basic features

Approval/Conformity	CE
	UKCA
	cULus
	WEEE
Basic standard	IEC 60947-5-2
Trademark	Global
Display/Operation	

yes no

Display/Operation

Function indicator
Power indicator

Electrical connection

Cable diameter D	4.60 mm
Cable length L	3 m
Conductor cross-section	0.34 mm ²
Connection type	Cable, 3.00 m, PVC
Number of conductors	3
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	0 mA
No-load current Io max., damped	5 mA
No-load current lo max., undamped	2 mA
Operating voltage Ub	1030 VDC
Output resistance Ra	33.0 kOhm + D
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.	21 ms
Residual current Ir max.	10 µA
Ripple max. (% of Ue)	15%
Switching frequency	2500 Hz
Jtilization category	DC -13
Voltage drop static max.	1.5 V

Environmental conditions

Ambient temperature Contamination scale EN 60068-2-27, Shock EN 60068-2-6, Vibration IP rating -25...70 °C 3 Half-sinus, 30 g_n, 11 ms 55 Hz, amplitude 1 mm, 3x30 min IP68

Functional safety

MTTF (40 °C)

Interface

Switching output

NPN normally open (NO)

555 a

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BALLUFF

Material

Material		Range/Distance
Housing material	Brass, Nickel-free coated	Assured operating dista
Material jacket	PVC	Hysteresis H max. (% of
Material sensing surface	PBT	Rated operating distanc
		Real switching distance
Mechanical data		Repeat accuracy max. (9
Dimension	Ø 12 x 53 mm	Switching distance mark
Installation	for flush mounting	Temperature drift max.
Mounting length	50.00 mm	Tolerance Sr
Size	M12x1	
Tightening torque	10 Nm	

Assured operating distance Sa	3.2 mm
Hysteresis H max. (% of Sr)	15.0 %
Rated operating distance Sn	4 mm
Real switching distance sr	4 mm
Repeat accuracy max. (% of Sr)	5.0 %
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.

Wiring Diagrams

