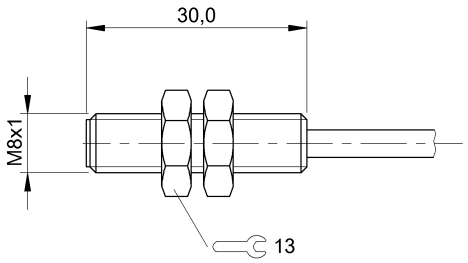
Inductive Sensors

BES M08MD-GNX10B-EV02-EEX
Order Code: BES02ZT



Basic features

Approval/Conformity	CE ATEX FM cCSAus EAC WEEE
Basic standard	EN IEC 60079-0 EN 60079-11 EN 60079-26 IEC 60079-0 IEC 60529 IEC 60947-5-6 CSA Class 258 04 CSA Class 258 84 FM Class 3600 FM Class 3610 FM Class 3810 Including Supplement 1 ANSI/NEMA 250
Ex marking	ATEX: Ex II 1G Ex ia IIC T6 Ga Ta: -20 … 55 °C Ex II 2G Ex ia IIC T6 Gb Ta: -20 … 70 °C Ex 1D Ex ia IIIC T90°C Ta: -20 … 70 °C NEC: CSA/FM Class I, Division 1, Groups ABCD Class II, Division 1, Groups EFG Class III

Display/Operation

Function indicator	no
Power indicator	no

Electrical connection

Cable length L	2 m
Conductor cross-section	0.14 mm²
Connection type	Cable, 2.00 m, PVC
Number of conductors	2
Polarity reversal protected	no

Electrical data

Current consumption max., damped	1 mA
Current consumption min., undamped	2.1 mA
Internal capacitance Ci max.	80 nF
Internal inductance Li max.	0.07 nH
Operating voltage Ub	7.7...9 VDC
Permiss. series resistance Rv	550...1100 Ohm
Rated insulation voltage Ui	75 V DC
Rated operating voltage Ue DC	8.2 V
Rated series resistance Rv	1000 Ohm
Ready delay tv max.	1 ms
Switching frequency	2000 Hz

Environmental conditions

Ambient temperature	-20...70 °C
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)	4816 a

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Interface

Interface	NAMUR

Material

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

Mechanical data

Dimension	Ø 8 x 30 mm
Installation	flush
Size	M8x1
Tightening torque	2.5 Nm

Range/Distance

Assured operating distance Sa	0.8 mm
Rated operating distance Sn	1 mm
Real switching distance sr	1 mm
Repeat accuracy max. (% of Sr)	5.0 %
Temperature drift max. (% of Sr)	10 %
Tolerance Sr	±10 %

Remarks

Operating manual must be followed.
Operate only with suitable approved switching amplifier.
Use only in approved intrinsically safe circuits with max. values Ui = 15 V, Ii = 50 mA, Pi = 120 mW.
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

