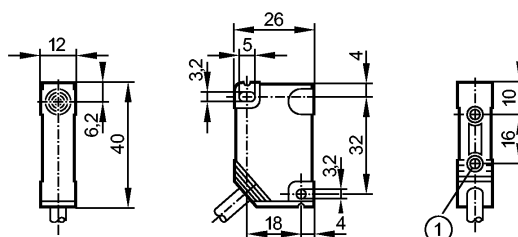


NN5002

IN-2004-N/1D/2G

Inductive sensors



1: threaded insert M3, depth 5.8 mm, max. tightening torque 1.2 Nm (screw fixing class 8.8) when brass insert in contact with counterpart.



Made in Germany

Product characteristics

Inductive sensor

Rectangular, plastics

Cable

ATEX approval

Group II, category 1D

Group II, category 1G/2G

Sensing range 4 mm; [nf] non-flush mountable

Electrical data

Electrical design	Connection to certified intrinsically safe circuits with the max. values $U = 15 \text{ V} / I = 50 \text{ mA} / P = 120 \text{ mW}$
Nominal voltage [V]	8.2 DC; (1k Ω)
Supply voltage [V]	7.5...30 DC; when used outside the hazardous area
Current consumption [mA]	< 1 *)
Protection class	II

Outputs

Output function	Normally closed
Current rating [mA]	< 30; when used outside the hazardous area
Switching frequency [Hz]	400

Range

Sensing range [mm]	4
Real sensing range (Sr) [mm]	$4 \pm 10 \%$

Accuracy / deviations

Correction factors	mild steel = 1 / stainless steel approx. 0.7 / brass approx. 0.5 / Al approx. 0.4 / Cu approx. 0.3
Hysteresis [% of Sr]	1...15
Switch-point drift [% of Sr]	-10...10

Environment

Ambient temperature [°C]	-20...80
Protection	IP 67

Tests / approvals

Approval	PTB 01 ATEX 2191 BVS 04 ATEX E153
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NN5002

IN-2004-N/1D/2G

Inductive sensors

Marking of the unit

Ⓔ II 1G Ex ia IIB T6 Ga Ta: -20...70° C
 Ⓔ II 1G Ex ia IIB T5 Ga Ta: -20...80° C
 Ⓔ II 2G Ex ia IIC T6 Gb Ta: -20...70° C
 Ⓔ II 2G Ex ia IIC T5 Gb Ta: -20...80° C
 Ⓔ II 1D Ex ia IIIC T90° C Da Ta: -20...70° C
 Ⓔ II 1D Ex ia IIIC T100° C Da Ta: -20...80° C

EMC

EN 60947-5-6

Shock / vibration resistance

30 g (11 ms) / 10-55 Hz (1 mm)

MTTF

[Years]

5029

Safety classification

Internal capacitance

[nF]

< 110

Internal inductance

[μH]

< 135

Mechanical data

Mounting

non-flush mountable

Housing materials

PBT

Weight

[kg]

0.142

Electrical connection

Connection

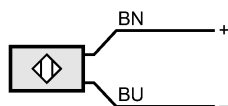
PVC cable / 2 m; 2 x 0.5 mm²

Wiring

Core colours

BN brown

BU blue



Remarks

Remarks

*)

Pack quantity

[piece]

1