

Product characteristics

Inductive sensor

Plastic thread M12 x 1

Cable

ATEX approval

Group II, category 1D/1G

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 disabled; (> 2.1 mA enabled)

Protection class

III

Outputs

Output function

normally closed

Current rating [mA]

< 30; when used outside the hazardous area

Switching frequency [Hz]

1500

Monitoring 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 / aluminium approx. 0.4 / copper 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
TIIS TC16107
IECEX BVS 06.0003

Marking of the unit

⊕ II 1G Ex ia IIC T6 Ga Ta: -20...70° C
⊕ II 1G Ex ia IIC T5 Ga 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]

5096

Safety classification

Internal capacitance [nF]

< 140

Internal inductance [μ H]

< 130

Mechanical data

NF5003 - Inductive sensor - eclass: 27270101 / 27-27-01-01

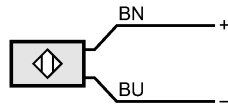
Mounting	non-flush mountable
Housing materials	PBT
Weight [kg]	0.118
Electrical connection	
Connection	PVC cable / 2 m; 2 x 0.34 mm ²

Wiring

Core colors

BN brown

BU blue



Accessories	
Accessories (included)	2 lock nuts
Remarks	
Pack quantity [piece]	1