

Product characteristics

Inductive sensor

Metal thread M12 x 1

Quick disconnect

ATEX approval

Group II, category 1D

Group II, category 1G/2G

Sensing range 4 mm; [f] 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]

700

Monitoring range

Sensing range [mm]

4

Real sensing range (Sr) [mm]

$4 \pm 10 \%$

Operating distance [mm]

0...3.24

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...70

Protection

IP 67

Tests / approvals

Approval

BVS 04 ATEX E 091 X
IECEx BVS 06.0003

Marking of the unit

Ex II 1G Ex ia IIC T6 Ga
Ex II 1D Ex ia IIIC T 90°C Da

EMC

EN 60947-5-6

Shock / vibration resistance

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

MTTF [Years]

3119

Safety classification

Internal capacitance [nF]

< 210

Internal inductance [μ H]

< 115

Mechanical data

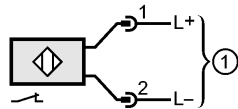
Mounting

flush mountable

NF501A - Inductive sensor - eclass: 27270101 / 27-27-01-01

Housing materials	brass special coating; active face: PBT; connector: PA
Weight [kg]	0.07
Displays / operating elements	
Output status indication LED	yellow (4 x 90°)
Electrical connection	
Connection	M12 connector

Wiring



1 = connection to NAMUR-amplifier

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