

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 $\Omega$ )

Supply voltage [V]

7.5...15 DC

Current consumption [mA]

< 1 disabled; (> 2.1 mA enabled)

Protection class

III

Outputs

Output function

2 x normally closed

Switching frequency [Hz]

1800

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

DMT 02 ATEX E028  
BVS 04 ATEX E153  
TIIS TC17612  
IECEX BVS 06.0003

Marking of the unit

⊕ Ex II 1G Ex ia IIB T6 Ga Ta: -20...70°C  
⊕ Ex II 2G Ex ia IIC T6 Gb Ta: -20...70°C  
⊕ Ex II 1D Ex ia IIIC T 90°C Da Ta: -20...70°C  
⊕ Ex II 1G Ex ia IIB T5 Ga Ta: -20...80°C  
⊕ Ex II 2G Ex ia IIC T5 Gb Ta: -20...80°C  
⊕ Ex II 1D Ex ia IIIC T 100°C Da Ta: -20...80°C

EMC

EN 60947-5-6

Shock / vibration resistance

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

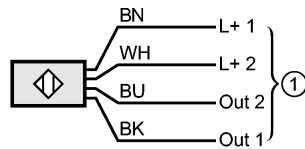
# NN5011 - Inductive sensor - eclass: 27270101 / 27-27-01-01

MTTF	[Years]	1253
Safety classification		
Internal capacitance	[nF]	< 140 **)
Internal inductance	[μH]	< 140 **)
Mechanical data		
Mounting		non-flush mountable
Housing materials		housing: PBT; cover: PC
Weight	[kg]	0.508
Displays / operating elements		
Output status indication	LED	2 x yellow
Electrical connection		
Connection		silicone cable / 10 m; 4 x 0.34 mm <sup>2</sup>

## Wiring

### Core colors

BK	black
BN	brown
BU	blue
WH	white



1 = connection to NAMUR-amplifier

Remarks		
Remarks		** ) per intrinsically safe electric circuit
Pack quantity	[piece]	1