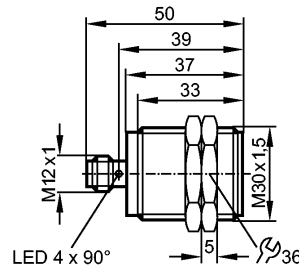


**NI501A**

IIB2015BN/US/1G/1D

Inductive sensors



Made in Germany



**Product characteristics**

Inductive sensor
Metal thread M30 x 1.5
Connector
ATEX approval
Group II, category 1G/2G
Group II, category 1D
Sensing range 15 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 $\Omega$ )
Supply voltage [V]	7.5...30 DC; when used outside the hazardous area
Current consumption [mA]	< 1; disabled; (> 2.1 mA enabled)
Protection class	II

**Outputs**

Output function	Normally closed
Current rating [mA]	< 30; when used outside the hazardous area
Switching frequency [Hz]	100

**Range**

Sensing range [mm]	15
Real sensing range (Sr) [mm]	15 $\pm$ 10 %
Operating distance [mm]	0...12.15

**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...70
Protection	IP 67

**Tests / approvals**

Approval	BVS 04 ATEX E 091 X IECEX BVS 06.0003
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## NI501A

IIB2015BN/US/1G/1D

Inductive sensors

Marking of the unit	<p>⊕ II 1D Ex iaD 20 T 90°C Ta: -20...70°C</p> <p>⊕ II 1G Ex ia IIB T6 Ta: -20...55°C</p> <p>⊕ II 2G Ex ia IIC T6 Ta: -20...70°C</p> <p>⊕ Ex ia IIB T6 zone 0 Ta: -20...70°C</p> <p>⊕ Ex ia IIC T6 zone 1 Ta: -20...70°C</p>
EMC	EN 60947-5-6
Shock / vibration resistance	30 g (11 ms) / 10-55 Hz (1 mm)
MTTF [Years]	2514

### Safety classification

Internal capacitance [nF]	< 230
Internal inductance [μH]	< 210

### Mechanical data

Mounting	flush mountable
Housing materials	Brass special coating; active face: PBT; connector: PA
Weight [kg]	0.159

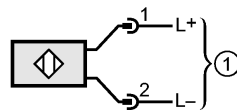
### Displays / operating elements

Output status indication LED	yellow (4 x 90°)
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### Electrical connection

Connection	M12 connector
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### Wiring



1 = connection to NAMUR-amplifier

### Accessories

Accessories (included)	2 lock nuts
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### Remarks

Pack quantity [piece]	1
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