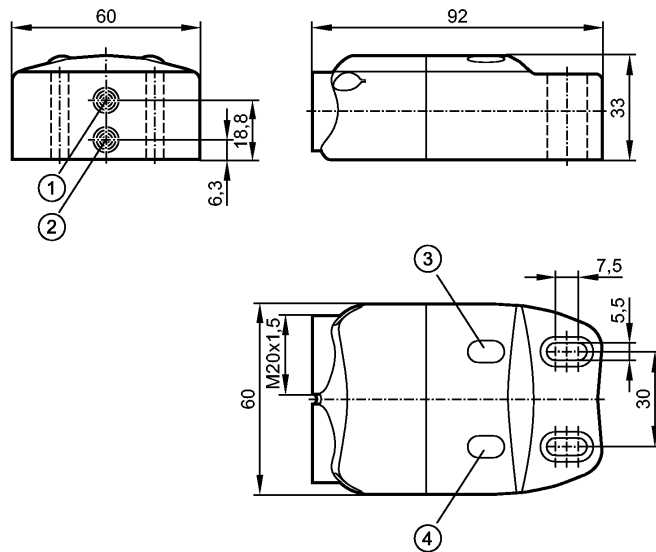


NN504A

INE2004DN/1D/1G/2G

Valve sensors



- 1: sensor 1
- 2: sensor 2
- 3: LED OUT 2
- 4: LED OUT 1

Made in Germany



Product characteristics

Inductive sensor
Rectangular, plastics
Terminals
Dual sensor for actuator feedback
ATEX approval
Group II, category 1D
Group II, category 1G
Group II, category 2G
Sensing range 4 mm; [nf] non-flush mountable

Electrical data

Electrical design	Connection to certified intrinsically safe circuits with the max. values $U = 15\text{ V} / I = 50\text{ mA} / P = 120\text{ mW}$
Actuator wiring	Connection to certified intrinsically safe circuits of solenoid valves with the maximum values $U = 28\text{ V} / I = 250\text{ mA} / P = 750\text{ mW}$ (up to 40 °C) / $P = 650\text{ mW}$ (up to 70 °C *)
Operating voltage [V]	8.2 DC; (1kΩ)
Supply voltage [V]	7.5...15 DC; outside hazardous areas
Current consumption [mA]	< 1; disabled; (> 2.1 mA enabled)
Internal capacitance [nF]	max. 60 per intrinsically safe circuit
Internal inductance [μH]	max. 130 per intrinsically safe circuit
Protection class	III

Outputs

Output function	2 x normally closed
Overload protection	yes
Switching frequency [Hz]	500

Range

Sensing range [mm]	4
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Valve sensors

Real sensing range (Sr)	[mm]	4 ± 10 %
Operating distance	[mm]	0...3.25

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]	-25...70
Protection		IP 65 / IP 67

Tests / approvals

Approval		BVS 14 ATEX E 005 X IECEX BVS 14.0005X
Marking of the unit		Ⓜ II 1G Ex ia IIB T4 Ga Ta: -25...70 °C Ⓜ II 2G Ex ia IIC T4 Gb Ta: -25...70 °C Ⓜ II 1D Ex ia IIIB T135 °C Da Ta: -25...70 °C
EMC		EN 60947-5-6
Vibration resistance		10...55 Hz (1 mm)
Shock resistance		30 g (11 ms)

Mechanical data

Mounting		non-flush mountable
Housing materials		housing: PA (polyamide)

Displays / operating elements

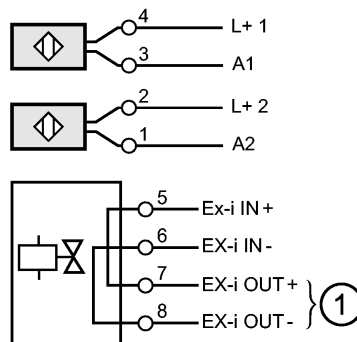
Output status indication	LED	2 x yellow
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Electrical connection

Connection		Terminal strip in the terminal chamber; terminals up to 2.5 mm ² ; M20 x 1.5 fitting
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Wiring

- 1: Sensor 2 A2
- 2: Sensor 2 L+ 2
- 3: Sensor 1 A1
- 4: Sensor 1 L+ 1
- 5: Ex-1 IN +
- 6: Ex-1 IN -
- 7: Ex-i OUT +
- 8: Ex-i OUT -



1 solenoid valve output

Accessories

Accessories (included)		2 socket head bolts, M5 x 16; 2 socket head bolts, M3 x 25
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Remarks

Remarks		The unit is not approved for safety tasks in the field of safety of persons. *) When used in gas atmospheres (group II), the following extended values are permitted, which must not be exceeded: U = 28 V / P = 1.1 W
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NN504A

INE2004DN/1D/1G/2G

Valve sensors

Pack quantity [piece] 1