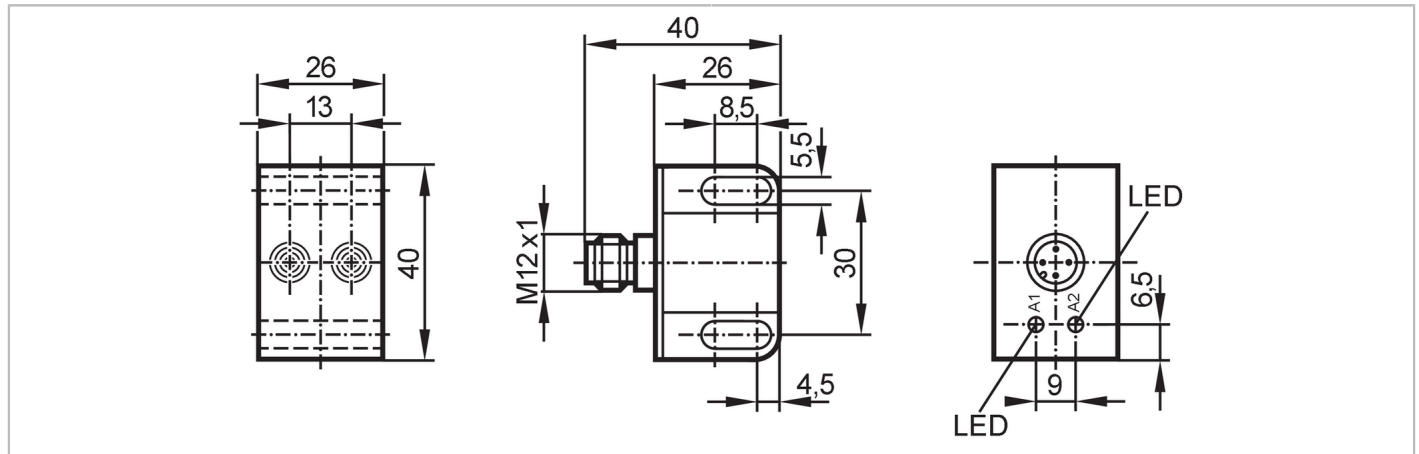




Inductive NAMUR dual sensor for valve actuators

IND2004DN/US100/1D/1G/2G



Product characteristics

Electrical design	NAMUR
Output function	2 x normally closed
Sensing range [mm]	4
Housing	rectangular
Dimensions [mm]	40 x 26 x 26

Application

Application	Position sensor for valve actuators
-------------	-------------------------------------

Electrical data

Connection at circuit amplifier	yes
Switching amplifiers	connection to certified intrinsically safe circuits with the max. values: U = 15 V / I = 50 mA / P = 120 mW
Nominal voltage DC [V]	8.2; (1kΩ)
Supply voltage DC [V]	7.5...15
Current consumption [mA]	< 1; (disabled; conductive: > 2,1)
Protection class	III

Outputs

Electrical design	NAMUR
Output function	2 x normally closed
Switching frequency DC [Hz]	1800

Monitoring range

Sensing range [mm]	4
Real sensing range Sr [mm]	4 ± 10 %

Accuracy / deviations

Correction factor	steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminum: 0.4 / copper: 0.3
Hysteresis [% of Sr]	1...15
Switch-point drift [% of Sr]	-10...10

Operating conditions

Ambient temperature [°C]	-20...80
Protection	IP 67



Inductive NAMUR dual sensor for valve actuators

IND2004DN/US100/1D/1G/2G

Tests / approvals		
Approval	DMT 02 ATEX E 028 X; BVS 04 ATEX E 153 X; IECEx BVS 06.0003X; TIIS TC22886	
ATEX marking	Ⓔⓧ II 1G Ex ia IIB T6 Ga Ta -20...70°C	
	Ⓔⓧ II 1G Ex ia IIB T5 Ga Ta -20...80°C	
	Ⓔⓧ II 2G Ex ia IIC T6 Gb Ta -20...70°C	
	Ⓔⓧ II 2G Ex ia IIC T5 Gb Ta -20...80°C	
	Ⓔⓧ II 1D Ex ia IIIC T200 90°C Da Ta: -20...70°C	
	Ⓔⓧ II 1D Ex ia IIIC T200 100° 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]	1253	
Safety classification		
Max. internal capacitance [nF]	140; (per intrinsically safe electric circuit)	
Max. internal inductance [μH]	130; (per intrinsically safe electric circuit)	
Mechanical data		
Weight [g]	67	
Housing	rectangular	
Mounting	non-flush mountable	
Dimensions [mm]	40 x 26 x 26	
Material	housing: PBT; cover: PC	
Tightening torque [Nm]	0.6...1.5; (knurled nut)	
Displays / operating elements		
Display	Switching status	2 x LED, yellow
Remarks		
Pack quantity	1 pcs.	
Electrical connection		
Connector: 1 x M12; coding: A; Contacts: 4		
2 1 3 4		

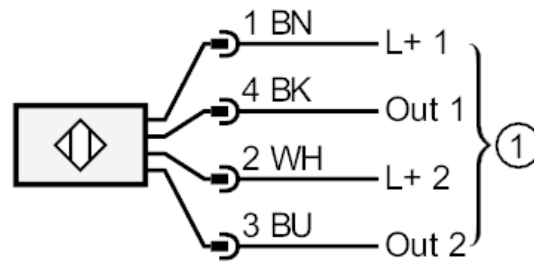
NN5008



Inductive NAMUR dual sensor for valve actuators

IND2004DN/US100/1D/1G/2G

Connection



1 = connection to NAMUR-amplifier