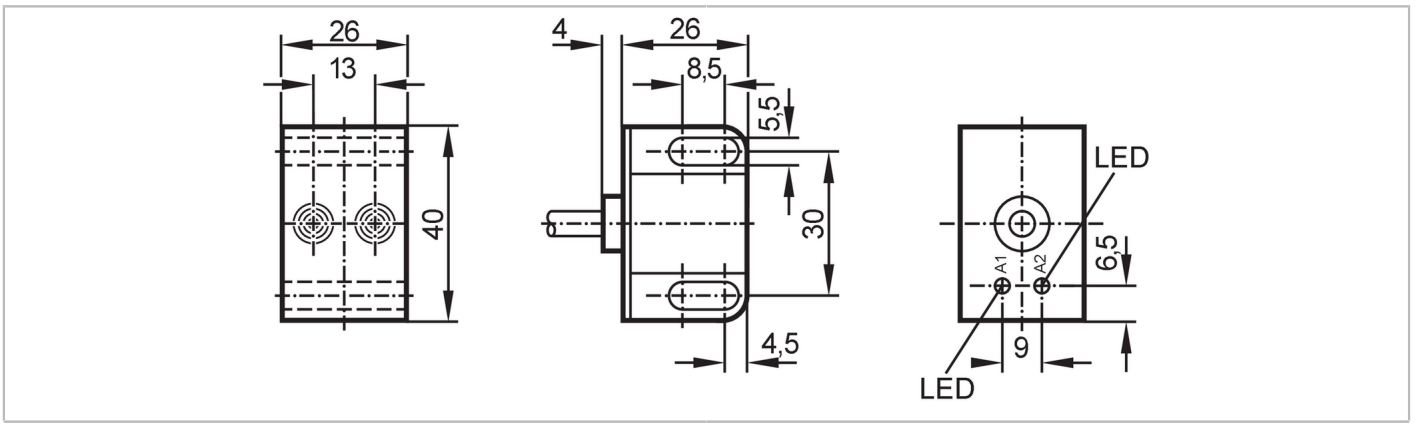
NN5009

Dual inductive NAMUR sensor for valve actuators

IND2004DN/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 to switching amplifiers		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
Detection zone		
Sensing range	[mm]	4
Real sensing range Sr	[mm]	4 ± 10 %
Accuracy / deviations		
Correction factor		steel: 1 / stainless steel: 0.7 / brass: 0.5 / aluminium: 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

NN5009

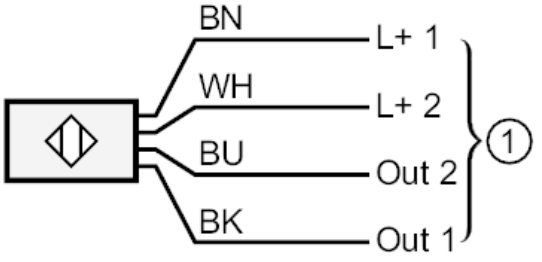
Dual inductive NAMUR sensor for valve actuators

IND2004DN/1D/1G/2G

Tests / approvals			
Approval		DMT 02 ATEX E 028 X; BVS 04 ATEX E 153 X; IECEx BVS 06.0003X; TIIS TC17612	
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 circuit)	
Max. internal inductance	[µH]	130; (per intrinsically safe circuit)	
Mechanical data			
Weight	[g]	162.5	
Housing		rectangular	
Mounting		non-flush mountable	
Dimensions	[mm]	40 x 26 x 26	
Materials		housing: PBT; cover: PC	
Displays / operating elements			
Display		switching status	2 x LED, yellow
Remarks			
Pack quantity		1 pcs.	
Electrical connection			

Cable: 2 m, silicone; 4 x 0.34 mm²

Connection



1 =	connection to NAMUR amplifiers
	Core colours :
BK =	black
BN =	brown
BU =	blue
WH =	white