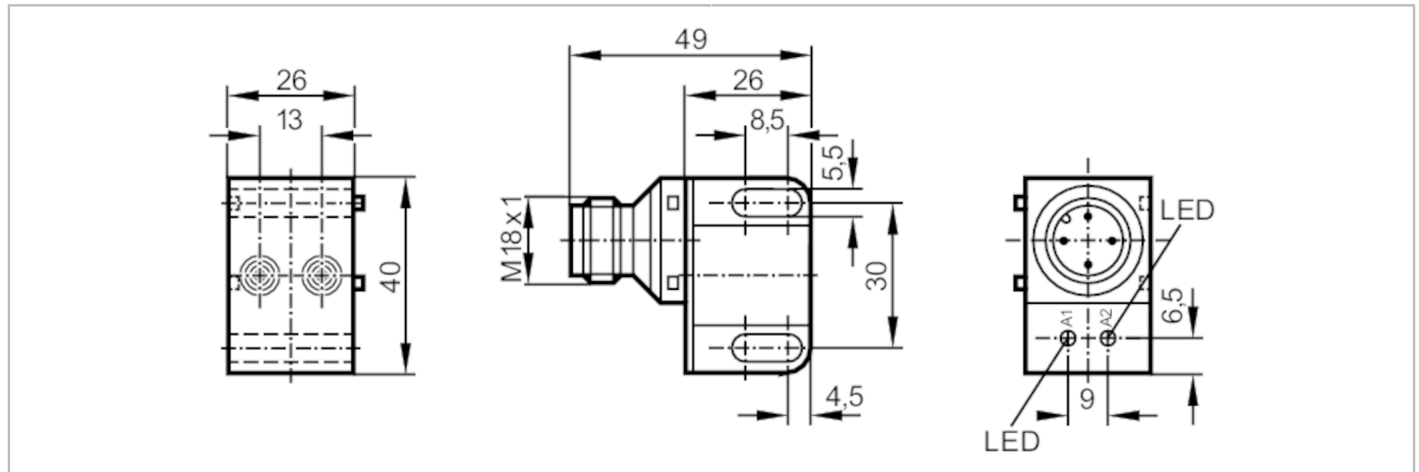


NN5013



Inductive NAMUR dual sensor for valve actuators

IND2004DN/BS-200-K/1D/1G/2G



Electrical data

Connection to switching amplifiers	yes
Switching amplifiers	connection to certified intrinsically safe circuits with the max. values: $U = 15 \text{ V}$ / $I = 50 \text{ mA}$ / $P = 120 \text{ mW}$
Nominal voltage DC [V]	8.2; (1k Ω)
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 S_r [mm]	$4 \pm 10 \%$

Accuracy / deviations

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

Operating conditions

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



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Tests / approvals		
Approval	DMT 02 ATEX E028; BVS 04 ATEX E153; IECEx BVS 06.0003	
ATEX marking	II 1G Ex ia IIB T6 Ga Ta: -20...70°C	
	II 2G Ex ia IIC T6 Gb Ta: -20...70°C	
	II 1D Ex ia IIIC T 90°C Da Ta: -20...70°C	
	II 1G Ex ia IIB T5 Ga Ta: -20...80°C	
	II 2G Ex ia IIC T5 Gb Ta: -20...80°C	
	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)	
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]	87.2
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 - plug		
Connector: 1 x M18		
		

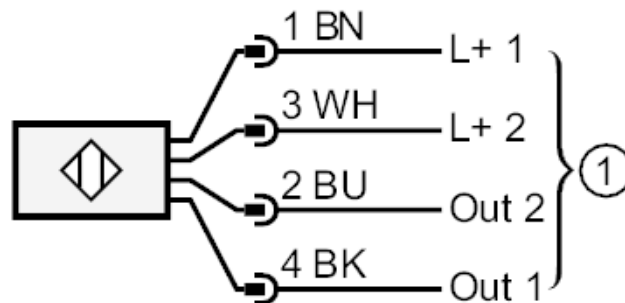
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Connection



1 = connection to NAMUR amplifiers

Core colours :

BK = black
BN = brown
BU = blue
WH = white