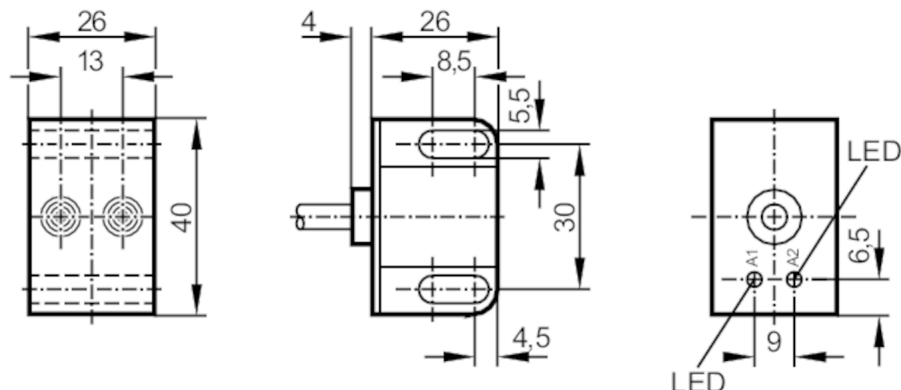


# NN5011



## Inductive NAMUR dual sensor for valve actuators

IND2004DN/10M/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 |
|--------------------------|----------|

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|                                |                                                                            |                 |
|--------------------------------|----------------------------------------------------------------------------|-----------------|
| Protection                     | IP 67                                                                      |                 |
| Tests / approvals              |                                                                            |                 |
| Approval                       | DMT 02 ATEX E 028 X; BVS 04 ATEX E 153 X; IECEx BVS 06.0003X; TIIS TC17612 |                 |
| ATEX marking                   | Ex II 1G Ex ia IIB T6 Ga Ta -20...70°C                                     |                 |
|                                | Ex II 1G Ex ia IIB T5 Ga Ta -20...80°C                                     |                 |
|                                | Ex II 2G Ex ia IIC T6 Gb Ta -20...70°C                                     |                 |
|                                | Ex II 2G Ex ia IIC T5 Gb Ta -20...80°C                                     |                 |
|                                | Ex II 1D Ex ia IIIC T200 90°C Da Ta: -20...70°C                            |                 |
|                                | Ex 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]  | 140; (per intrinsically safe electric circuit)                             |                 |
| Mechanical data                |                                                                            |                 |
| Weight [g]                     | 500.7                                                                      |                 |
| Housing                        | rectangular                                                                |                 |
| Mounting                       | non-flush mountable                                                        |                 |
| Dimensions [mm]                | 40 x 26 x 26                                                               |                 |
| Material                       | housing: PBT; cover: PC                                                    |                 |
| Displays / operating elements  |                                                                            |                 |
| Display                        | Switching status                                                           | 2 x LED, yellow |
| Remarks                        |                                                                            |                 |
| Pack quantity                  | 1 pcs.                                                                     |                 |

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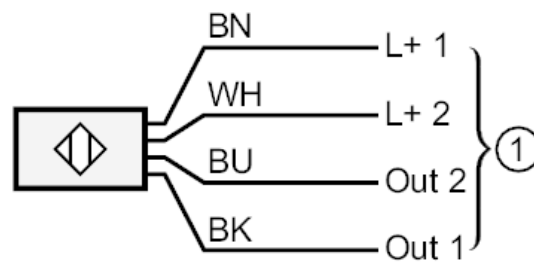
## Inductive NAMUR dual sensor for valve actuators

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### Electrical connection

Cable: 10 m, silicone; 4 x 0.34 mm<sup>2</sup>

### Connection



1 = connection to NAMUR-amplifier  
Core colors :  
BK = black  
BN = brown  
BU = blue  
WH = white