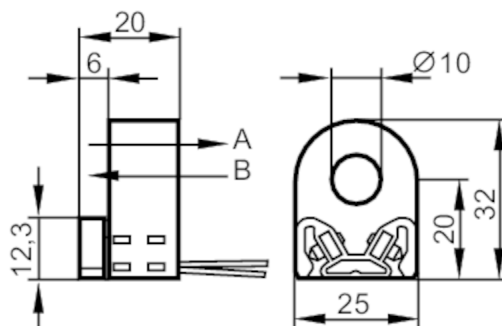


# N7R21A



## Inductive NAMUR ring sensor

I7R2010-NL/1G/1D



A direction of movement A  
B direction of movement B



### Product characteristics

|                   |                 |
|-------------------|-----------------|
| Electrical design | NAMUR           |
| Output function   | normally closed |
| Housing           | circular        |
| Dimensions [mm]   | 32 x 25 x 20    |

### Application

|                     |          |
|---------------------|----------|
| Operating principle | bistable |
|---------------------|----------|

### 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)                                                                                                  |
| Current consumption [mA]           | value for direction of movement A : < 1,2; value for direction of movement B : > 2,1                        |
| Protection class                   | III                                                                                                         |

### Outputs

|                   |                 |
|-------------------|-----------------|
| Electrical design | NAMUR           |
| Output function   | normally closed |

### Detection zone

|                                |    |
|--------------------------------|----|
| Measuring ball (diameter) [mm] | 4  |
| Max. travel speed [m/s]        | 10 |

### Accuracy / deviations

|                 |   |
|-----------------|---|
| Hysteresis [mm] | 2 |
|-----------------|---|

### Operating conditions

|                             |                              |
|-----------------------------|------------------------------|
| Ambient temperature [°C]    | -40...100                    |
| Note on ambient temperature | max. temperature span: 100 K |
| Protection                  | IP 67                        |

### Tests / approvals

|              |                                     |
|--------------|-------------------------------------|
| Approval     | BVS 08 ATEX E026; IECEx BVS 09.0016 |
| ATEX marking | Ex II 1G Ex ia IIC T4 Ga            |

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## Inductive NAMUR ring sensor

I7R2010-NL/1G/1D

|      |         |                                                                                                              |
|------|---------|--------------------------------------------------------------------------------------------------------------|
|      |         |  II 1D Ex ia IIIC T125°C Da |
| EMC  |         | EN 60947-5-2                                                                                                 |
| MTTF | [years] | 1256                                                                                                         |

### Safety classification

|                           |      |    |
|---------------------------|------|----|
| Max. internal capacitance | [nF] | 90 |
| Max. internal inductance  | [μH] | 90 |

### Mechanical data

|                 |      |              |
|-----------------|------|--------------|
| Weight          | [g]  | 48           |
| Housing         |      | circular     |
| Dimensions      | [mm] | 32 x 25 x 20 |
| Inside diameter | [mm] | 10           |
| Materials       |      | PA 12-GF30   |

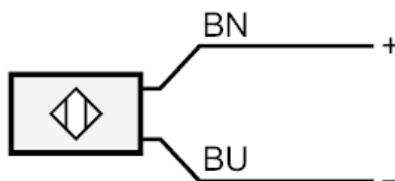
### Remarks

|               |  |        |
|---------------|--|--------|
| Pack quantity |  | 1 pcs. |
|---------------|--|--------|

### Electrical connection

Cable: 0.15 m; 2 x 0.14 mm<sup>2</sup>, PTFE

### Connection



BN = Core colours :  
brown  
BU = blue