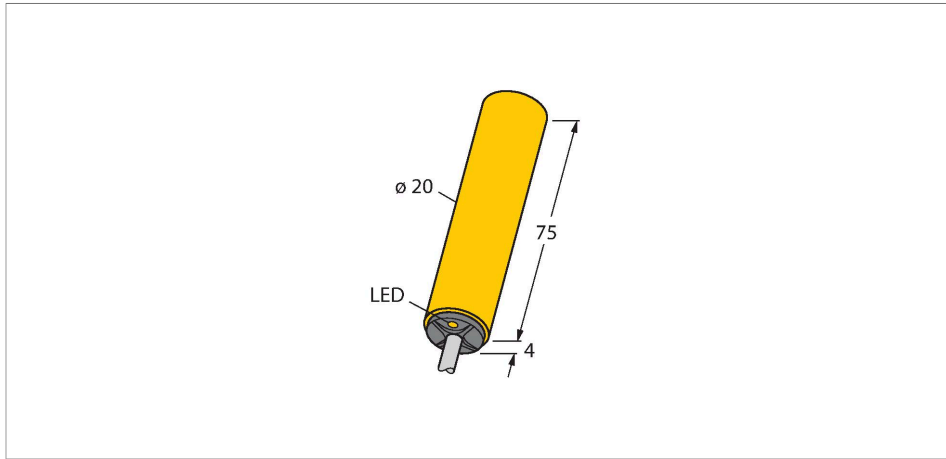


# NI10-K20-AZ3X

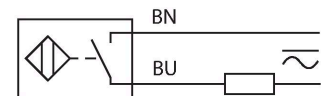
## Inductive sensor



### Features

- Smooth barrel,  $\varnothing$  20 mm
- Plastic, PBT-GF30-V0
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- Cable connection

### Wiring diagram

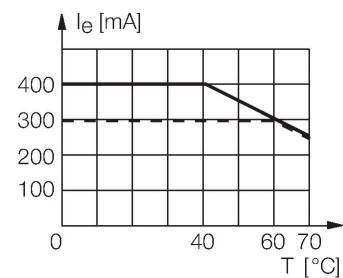


### Technical data

|                              |   |
|------------------------------|---|
| Type                         | NI10-K20-AZ3X                                       |
| Ident. no.                   | 43585   |
| Rated switching distance     | 10 mm   |
| Mounting conditions          | Non-flush   |
| Secured operating distance   | $\leq (0.81 \times S_n)$ mm                         |
| Correction factors           | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeat accuracy              | $\leq 2\%$ of full scale                            |
| Temperature drift            | $\leq \pm 10\%$                                     |
| Hysteresis                   | 3...15 %  |
| Ambient temperature          | -25...+70 °C  |
| Operating voltage            | 20...250 VAC  |
| Operating voltage            | 10...300 VDC  |
| AC rated operational current | $\leq 400$ mA                                       |
| DC rated operational current | $\leq 300$ mA                                       |
| Frequency                    | $\geq 50 \dots \leq 60$ Hz                          |
| Residual current             | $\leq 1.7$ mA                                       |
| Isolation test voltage       | $\leq 1.5$ kV                                       |
| Surge current                | $\leq 8$ A ( $\leq 10$ ms max. 5 Hz)                |
| Voltage drop at $I_e$        | $\leq 6$ V  |
| Output function              | 2-wire, NO contact                                  |
| Smallest operating current   | $\geq 3$ mA   |
| Switching frequency          | 0.02 kHz  |
| Design                       | Smooth barrel, 20 mm                                |
| Dimensions                   | 79 mm   |

### Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

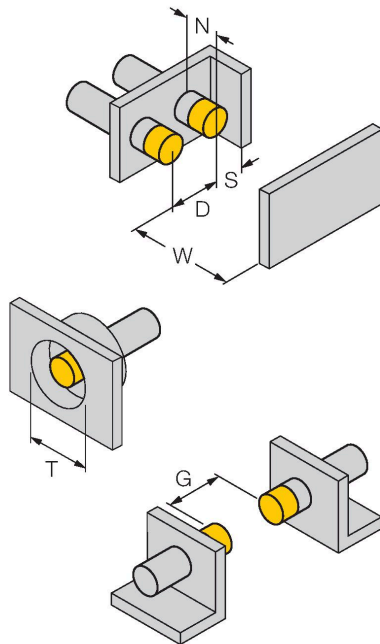


## Technical data

|                       |  |
|-----------------------|--|
| Housing material      | Plastic, PBT-GF30-V0                       |
| Active area material  | Plastic, PBT-GF30-V0                       |
| End cap               | Plastic, EPTR                              |
| Electrical connection | Cable                                      |
| Cable quality         | Ø 5.2 mm, LifYY, PVC, 2 m                  |
| Core cross-section    | 2 x 0.34 mm <sup>2</sup>                   |
| Vibration resistance  | 55 Hz (1 mm)                               |
| Shock resistance      | 30 g (11 ms)                               |
| Protection class      | IP67                                       |
| MTTF                  | 2283 years acc. to SN 29500 (Ed. 99) 40 °C |
| Switching state       | LED, Red                                   |
| Included in delivery  | BS20                                       |

## Mounting instructions

### Mounting instructions/Description

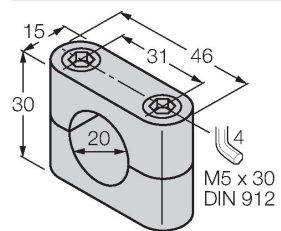


|                        |         |
|------------------------|---------|
| Distance D             | 3 x B   |
| Distance W             | 3 x Sn  |
| Distance T             | 3 x B   |
| Distance S             | 1.5 x B |
| Distance G             | 6 x Sn  |
| Distance N             | 2 x Sn  |
| Diameter active area B | Ø 20 mm |

Accessories

**BS 20**

**69464**



Fixing clamp; material mounting block:  
PBT



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