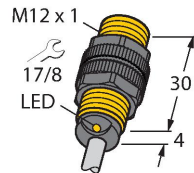


# NI5-P12-Y0X 7M

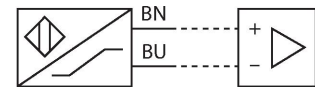
## Inductive Sensor



### Features

- Threaded barrel, M12 x 1
- Plastic, PA12-GF30
- DC 2-wire, nom. 8.2 VDC
- Output acc. to EN 60947-5-6 (NAMUR)
- Cable connection

### Wiring diagram



### Technical data

|                                       |                                                     |
|---------------------------------------|-----------------------------------------------------|
| Type                                  | NI5-P12-Y0X 7M                                      |
| ID                                    | 4030197                                             |
| <b>General data</b>                   |                                                     |
| Rated switching distance              | 5 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                            |
| Hysteresis                            | 1...10 %                                            |
| <b>Electrical data</b>                |                                                     |
| Output function                       | 2-wire, NAMUR                                       |
| Switching frequency                   | 5 kHz                                               |
| Voltage                               | Nom. 8.2 VDC                                        |
| Non-actuated current consumption      | $\geq 2.1$ mA                                       |
| Actuated current consumption          | $\leq 1.2$ mA                                       |
| <b>Mechanical data</b>                |                                                     |
| Design                                | Threaded barrel, M12 x 1                            |
| Dimensions                            | 34 mm                                               |
| Housing material                      | Plastic, PA12-GF30                                  |
| Active area material                  | Plastic, PA12-GF30                                  |
| End cap                               | Plastic, EPTR                                       |
| Max. tightening torque of housing nut | 1 Nm                                                |
| Electrical connection                 | Cable                                               |

### Functional principle

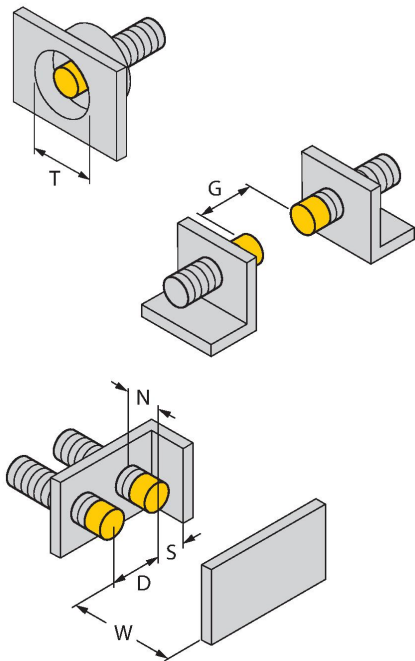
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

Technical data

|                          |                                            |
|--------------------------|--------------------------------------------|
| Cable quality            | Ø 5.2 mm, Blue, LiYY, PVC, 7 m             |
| Core cross-section       | 2 x 0.5 mm <sup>2</sup>                    |
| Environmental conditions |                                            |
| Ambient temperature      | -25...+70 °C                               |
| Vibration resistance     | 55 Hz (1 mm)                               |
| Shock resistance         | 30 g (11 ms)                               |
| Protection class         | IP67                                       |
| MTTF                     | 6198 years acc. to SN 29500 (Ed. 99) 40 °C |
| Switching state          | LED, Yellow                                |

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 12 mm |

## Accessories

BST-12B

6947212

Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



QM-12

6945101

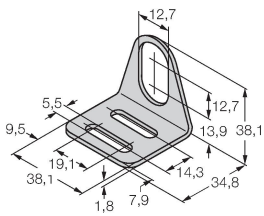
Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M16 × 1. Note: The switching distance of the proximity switches may change when using quick-mount brackets.



MW12

6945003

Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



BSS-12

6901321

Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene

