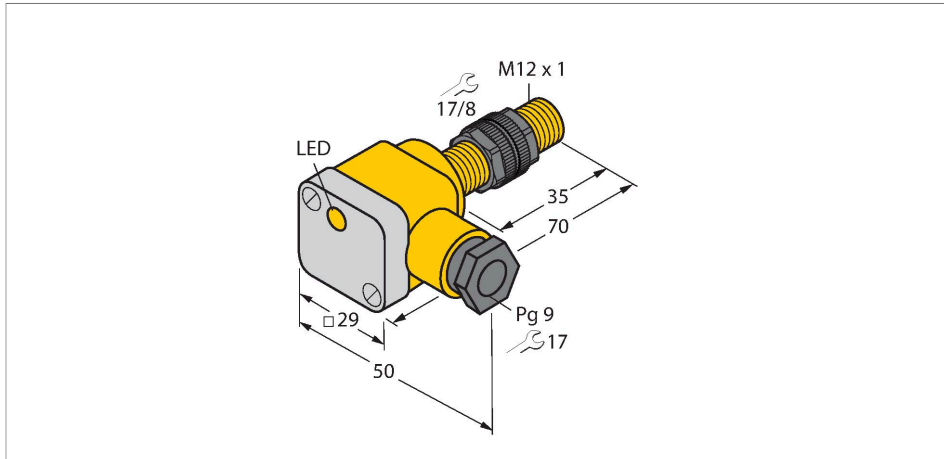


# NI5-P12SK-Y0X

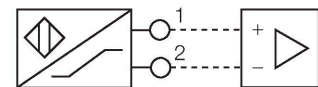
## Inductive Sensor



### Features

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

### Wiring diagram



### Technical data

|                                       |   |
|---------------------------------------|---|
| Type                                  | NI5-P12SK-Y0X                                       |
| ID                                    | 1005461   |
| <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                   | 2 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                            | 70 mm   |
| Housing material                      | Plastic, PA12-GF30                                  |
| Terminal chamber cover material       | plastic, Ultem                                      |
| Terminal chamber housing material     | plastic, PA12-GF30                                  |
| Active area material                  | Plastic, PA12-GF30                                  |
| Max. tightening torque of housing nut | 1 Nm  |

### 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

|                                 |  |
|---------------------------------|--|
| Electrical connection           | Terminal chamber                           |
| Clamping ability                | $\leq 2.5 \text{ mm}^2$                    |
| Cable external diameter         | 4.5...8 mm                                 |
| <b>Environmental conditions</b> |  |
| 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                                |
| Included in delivery            | cable gland; 2x plastic seals              |

## 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 | $\varnothing 12 \text{ mm}$ |

## 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.



MW-12

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

