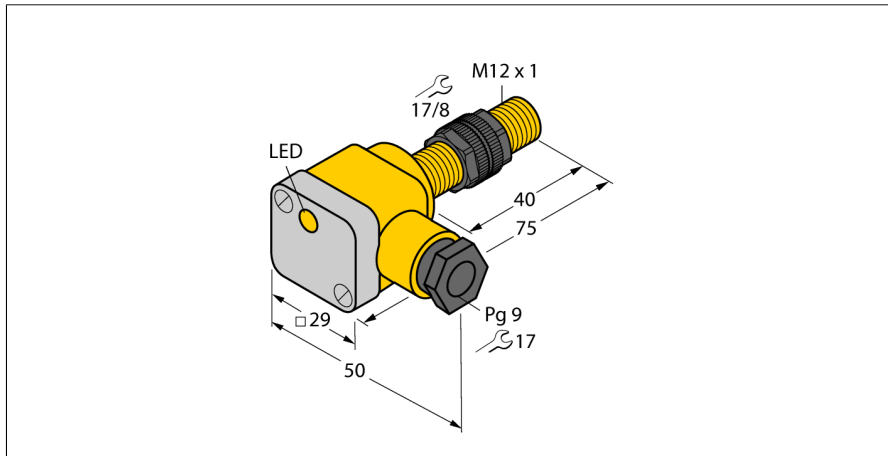


Inductive sensor NI5-P12SK-AN6X

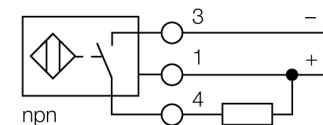
TURCK

Industrial
Automation



- Threaded barrel, M12 x 1
- Plastic, PA12-GF30
- 3-wire DC, 10...30 VDC
- NO contact, NPN output
- Terminal chamber

Wiring diagram



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.

We offer special versions for temperatures of -60 °C up to +250 °C.

| | |
|---|---|
| Type code | NI5-P12SK-AN6X |
| Ident no. | 46538 |
| Rated operating distance S_n | 5 mm |
| Mounting condition | non-flush |
| Assured sensing range | ≤ (0,81 x S _n) mm |
| Correction factors | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeatability | ≤ 2 % of full scale |
| Temperature drift | 10 % |
| Hysteresis | 3...15 % |
| Ambient temperature | -25...+70 °C |
| Operating voltage | 10...30VDC |
| Residual ripple | ≤ 10 % U _{ss} |
| DC rated operational current | ≤ 200 mA |
| No-load current I ₀ | ≤ 15 mA |
| Residual current | ≤ 0.1 mA |
| Rated insulation voltage | ≤ 0.5 kV |
| Short-circuit protection | yes/ cyclic |
| Voltage drop at I ₀ | ≤ 1.8 V |
| Wire breakage / Reverse polarity protection | yes/ complete |
| Output function | 3-wire, NO contact, NPN |
| Switching frequency | 1.5 kHz |
| Design | threaded barrel, M12 x 1 |
| Dimensions | 75 mm |
| Housing material | plastic, PA |
| Terminal chamber cover material | plastic, Ultem |
| Terminal chamber housing material | plastic, plastic, PA12-GF20 |
| Material active area | Plastic, PA |
| Max. tightening torque housing nut | 1 Nm |
| Connection | terminal chamber |
| Clamping ability | ≤ 2.5 mm ² |
| Cable external diameter | 4.5...8mm |
| 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 yellow |
| Included in scope of supply | cable gland; 2x plastic seals |

**Inductive sensor
NI5-P12SK-AN6X**

| | |
|------------|---------|
| 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 of the active area B \varnothing 12 mm



Accessories

| Type code | Ident no. | Description | Dimension drawing |
|-----------|-----------|--|-------------------|
| BST-12B | 6947212 | Fixing clamp for threaded barrel devices, with dead-stop; material: PA6 | |
| QM-12 | 6945101 | Quick-mount bracket with dead-stop; material: Chrome-plated brass Male thread M16 x 1. Note: The switching distance of proximity switches can be reduced by the use of quick-mount brackets. | |
| MW-12 | 6945003 | Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304) | |
| BSS-12 | 6901321 | Mounting bracket for smooth and threaded barrel devices; material: Polypropylene | |