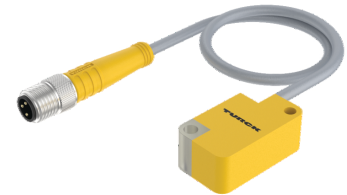
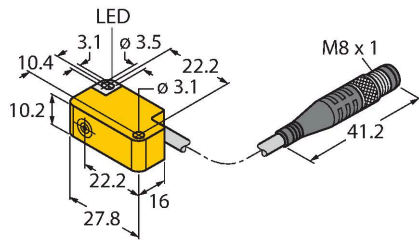


NI5U-Q10S-AP6X-0.3-PSG3M

Inductive Sensor – With Extended Switching Distance



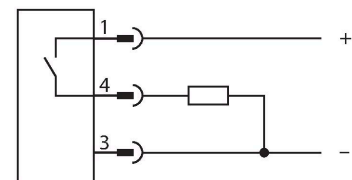
Technical data

| | |
|--|--|
| Type | NI5U-Q10S-AP6X-0.3-PSG3M |
| ID | 1609367 |
| General data | |
| Rated switching distance | 5 mm |
| Mounting conditions | Non-flush |
| Secured operating distance | $\leq (0.81 \times S_n)$ mm |
| Repeat accuracy | $\leq 2 \%$ of full scale |
| Temperature drift | $\leq \pm 10 \%$ |
| | $\leq \pm 15 \%, \leq -25 \text{ °C} \vee \geq +70 \text{ °C}$ |
| Hysteresis | 3...15 % |
| Electrical data | |
| Operating voltage U_B | 10...30 VDC |
| Ripple U_{ss} | $\leq 10 \%$ U_{Bmax} |
| DC rated operating current I_o | ≤ 150 mA |
| No-load current | ≤ 15 mA |
| Residual current | ≤ 0.1 mA |
| Isolation test voltage | 0.5 kV |
| Short-circuit protection | yes/Cyclic |
| Voltage drop at I_o | ≤ 1.8 V |
| Wire break/reverse polarity protection | yes/Complete |
| Output function | 3-wire, NO contact, PNP |
| DC field stability | 300 mT |
| AC field stability | 300 mT _{ss} |
| Switching frequency | 1 kHz |

Features

- Rectangular, height 10.2 mm
- Active face, lateral
- Cable outlet to all sides
- Plastic, PP-GF20
- Factor 1 for all metals
- Increased switching distance
- Protection class IP68
- Resistant to magnetic fields
- Auto-compensation protects against pre-damping
- Flush mounted installation on up to 4 sides
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Pigtail with male end M8 x 1

Wiring diagram

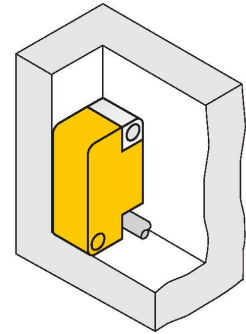


Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

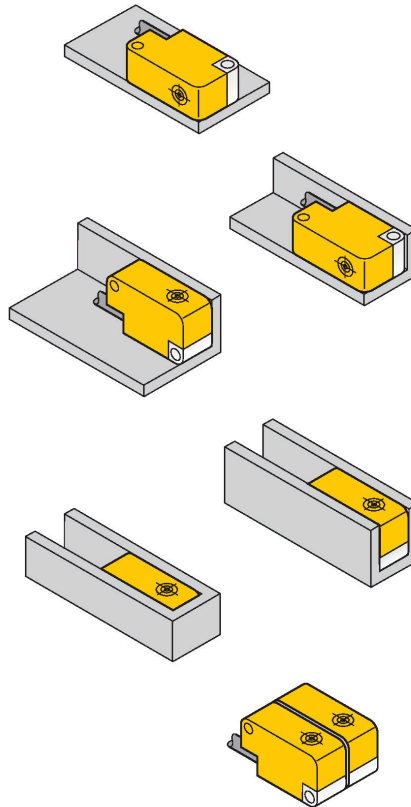
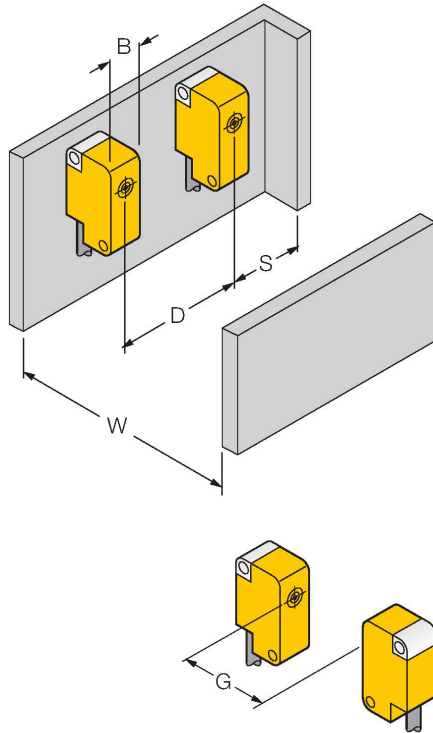
Technical data

| Mechanical data | |
|--------------------------|---|
| Design | Rectangular, Q10S |
| Dimensions | 27.8 x 16 x 10.2 mm |
| Housing material | Plastic, PP-GF20 |
| Active area material | PP-GF20 |
| Material coupling nut | metal, CuZn, nickel-plated |
| Electrical connection | Cable with connector, M8 × 1 |
| Cable quality | Ø 3 mm, Gray, Lif9Y-11Y, PUR, 0.3 m |
| | Suited for E-ChainSystems® acc. to manufacturers declaration H1063M |
| Core cross-section | 3 x 0.14 mm ² |
| Environmental conditions | |
| Ambient temperature | -30...+85 °C |
| Vibration resistance | 55 Hz (1 mm) |
| Shock resistance | 30 g (11 ms) |
| Protection class | IP68 |
| MTTF | 874 years acc. to SN 29500 (Ed. 99) 40 °C |
| Switching state | LED, Yellow |



Mounting instructions

Mounting instructions/Description



| | |
|---------------------|----------------|
| Distance D | $3 \times B$ |
| Distance W | $3 \times S_n$ |
| Distance S | $1.5 \times B$ |
| Distance G | $6 \times S_n$ |
| Width active area B | 10.2 mm |

Flush mounting:

1-side mounting:
 $S_n = 3 \text{ mm}$

2-side mounting:
 $S_n = 3 \text{ mm}$

3-side mounting:
 $S_n = 2.6 \text{ mm}$

4-side mounting:
 $S_n = 2.3 \text{ mm}$

In many cases, sensors have to be mounted side by side to fulfill monitoring tasks. In order to avoid mutual interferences, use the Q10S-ZP shield (ident no. 6900520).

Accessories

| | |
|---------------------|---------|
| Q10S-ZP | 6900520 |
| mounting panel Q10S | |

