

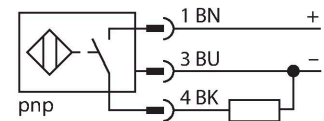
# NI25-Q20-AP6X2-H1141

## Inductive Sensor

### Features

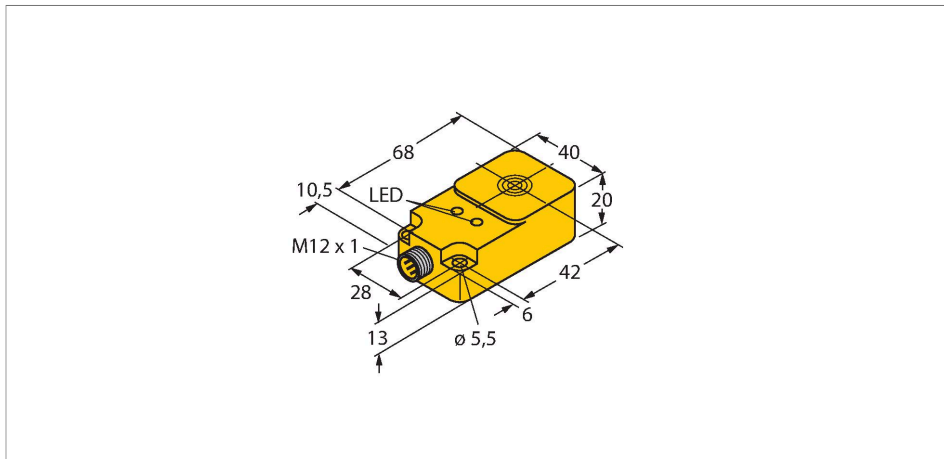
- Rectangular, height 20 mm
- Active face on top
- Plastic, PBT-GF30-V0
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

### 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.



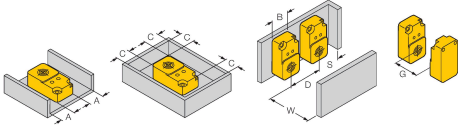
### Technical data

|   |   |
|---|---|
| Type                                      | NI25-Q20-AP6X2-H1141                                |
| Ident. no.                                | 1602702   |
| Rated switching distance                  | 25 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                         | 10...30 VDC   |
| Residual ripple                           | $\leq 10\% U_s$                                     |
| DC rated operational current              | $\leq 200$ mA                                       |
| No-load current                           | $\leq 15$ mA  |
| Residual current                          | $\leq 0.1$ mA                                       |
| Isolation test voltage                    | $\leq 0.5$ kV                                       |
| Short-circuit protection                  | yes / Cyclic  |
| Voltage drop at $I_e$                     | $\leq 1.8$ V  |
| Wire breakage/Reverse polarity protection | yes / Complete                                      |
| Output function                           | 3-wire, NO contact, PNP                             |
| Switching frequency                       | 0.25 kHz  |
| <b>Design</b>                             | <b>Rectangular, Q20</b>                             |
| Dimensions                                | 68 x 40 x 20 mm                                     |
| Housing material                          | Plastic, PBT-GF30-V0                                |

## Technical data

|                       |  |
|-----------------------|--|
| Active area material  | PBT-GF30-V0                                |
| Electrical connection | Connector, M12 × 1                         |
| 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 |
| Power-on indication   | LED, Green                                 |
| Switching state       | LED, Yellow                                |

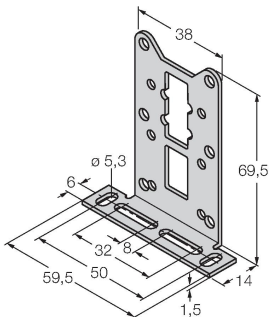
## Mounting instructions

| Mounting instructions/Description   |                     |         |
|---|---------------------|---------|
|  | Distance D          | 3 x B   |
|   | Distance W          | 3 x Sn  |
|   | Distance S          | 1.5 x B |
|   | Distance G          | 6 x Sn  |
|   | Distance N          | 2 x Sn  |
|   | Distance A          | 1 x Sn  |
|   | Distance C          | 2 x Sn  |
|   | Width active area B | 40 mm   |

## Accessories


MW-Q14/Q20 6945006

Mounting bracket for rectangular Q14 or Q20; material VA 1.4301



N125-Q20-AP6X2-H1141 | 05/27/2020 11-24 | technical changes reserved

## Wiring accessories

| Dimension drawing   | Type        | Ident. no. |  |
|---|-------------|------------|--|
|  | RKC4T-2/TEL | 6625010    | Connection cable, female M12, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a> |