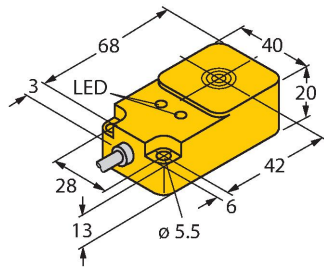


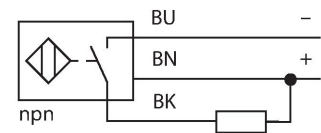
# NI25-Q20-AN6X2 Inductive Sensor



## Features

- Rectangular, height 20 mm
- Active face on top
- Plastic, PBT-GF30-V0
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- Cable connection

## 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.

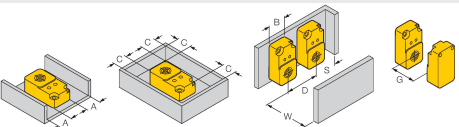
## Technical data

|                                           |                                                     |
|-------------------------------------------|-----------------------------------------------------|
| Type                                      | NI25-Q20-AN6X2                                      |
| Ident. no.                                | 1602800                                             |
| 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                           | $\leq 10$ % $U_{ss}$                                |
| 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 $I_o$                     | $\leq 1.8$ V                                        |
| Wire breakage/Reverse polarity protection | yes / Complete                                      |
| Output function                           | 3-wire, NO contact, NPN                             |
| Switching frequency                       | 0.25 kHz                                            |
| Design                                    | Rectangular, Q20                                    |
| Dimensions                                | 68 x 40 x 20 mm                                     |

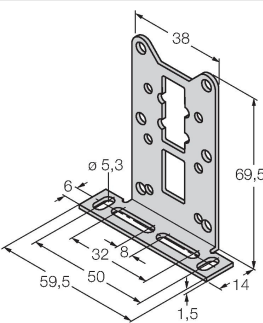
Technical data

|                       |                                            |
|-----------------------|--------------------------------------------|
| Housing material      | Plastic, PBT-GF30-V0                       |
| Active area material  | PBT-GF30-V0                                |
| Electrical connection | Cable                                      |
| Cable quality         | Ø 5.2 mm, LifYY-11Y, PUR, 2 m              |
| Core cross-section    | 3 x 0.34 mm <sup>2</sup>                   |
| 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 |
|  <p>Mounting bracket for rectangular Q14 or Q20; material VA 1.4301</p> |         |