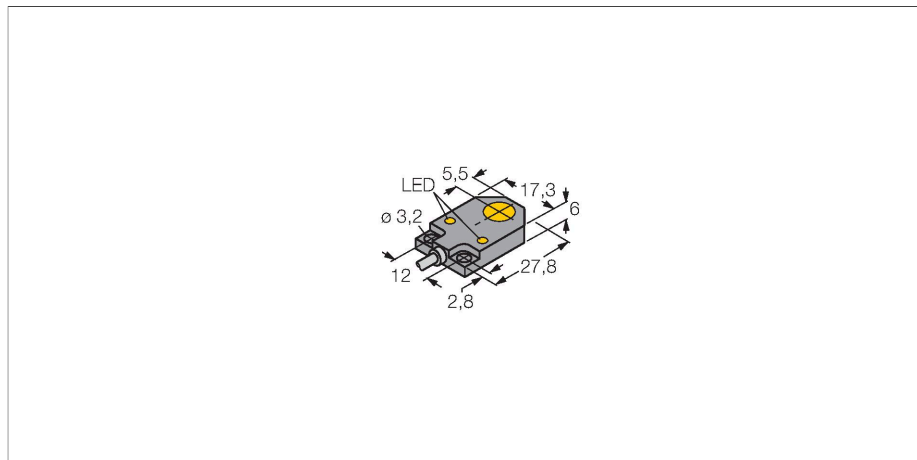


# BI3-Q06-AN6X2

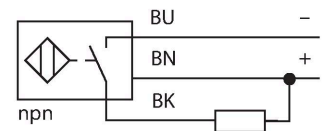
## Inductive Sensor



### Features

- Rectangular, height 6 mm
- Active face on top
- Plastic, PA12-GF30
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- Cable connection

### Wiring diagram



### Technical data

|  |   |
|--|---|
| Type                                   | BI3-Q06-AN6X2                                       |
| ID                                     | 1620150   |
| <b>General data</b>                    |   |
| Rated switching distance               | 3 mm  |
| Mounting conditions                    | 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 %  |
| <b>Electrical data</b>                 |   |
| Operating voltage $U_B$                | 10...30 VDC   |
| Ripple $U_{ss}$                        | $\leq 10$ % $U_{Bmax}$                              |
| DC rated operating current $I_e$       | $\leq 200$ mA                                       |
| No-load current                        | $\leq 15$ mA  |
| Residual current                       | $\leq 0.1$ mA                                       |
| Isolation test voltage                 | 0.5 kV  |
| Short-circuit protection               | yes/Cyclic  |
| Voltage drop at $I_e$                  | $\leq 1.8$ V  |
| Wire break/reverse polarity protection | yes/Complete  |
| Output function                        | 3-wire, NO contact, NPN                             |
| Switching frequency                    | 1 kHz   |
| <b>Mechanical data</b>                 |   |
| Design                                 | Rectangular, Q06                                    |
| Dimensions                             | 27.8 x 17.3 x 6 mm                                  |
| Housing material                       | Plastic, PP   |

### 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

|                                 |  |
|---------------------------------|--|
| Active area material            | PA12-GF30                                  |
| Electrical connection           | Cable                                      |
| Cable quality                   | Ø 4 mm, LifY-11Y, PUR, 2 m                 |
| Core cross-section              | 3 x 0.25 mm <sup>2</sup>                   |
| <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                            | 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        | 2 x B  |
|                                   | Distance W        | 3 x Sn |
|                                   | Distance S        | 1 x B  |
|                                   | Distance G        | 6 x Sn |
|                                   | Width active area | 5.5 mm |
|                                   | B                 |        |