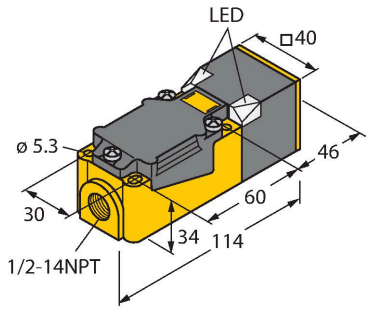
# BI20-CP40-VN4X2/S10
# Inductive sensor



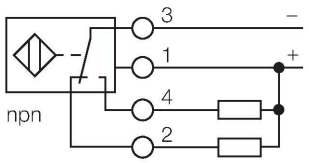

## Technical data

| **Type** | BI20-CP40-VN4X2/S10 |
|---|---|
| Ident. no. | 1579221 |
| Special version | S10 = Mounting base with 1/2-14NPT thread |
| Rated switching distance | 20 mm |
| Mounting conditions | Flush |
| Secured operating distance | ≤ (0,81 x Sn) mm |
| Correction factors | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeat accuracy | ≤ 2 % of full scale |
| Temperature drift | ≤ ± 10 % |
| Hysteresis | 3…15 % |
| Ambient temperature | -25…+70 °C |
| Operating voltage | 10…65 VDC |
| Residual ripple | ≤ 10 % $U_{ss}$ |
| DC rated operational current | ≤ 200 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 | ≤ 1.8 V |
| Wire breakage/Reverse polarity protection | yes / Complete |
| Output function | 4-wire, Complementary contact, NPN |
| Switching frequency | 0.15 kHz |
| **Design** | Rectangular,CP40 |
| Dimensions | 114 x 40 x 40 mm |

## Features

- Rectangular, height 40 mm
- Variable orientation of active face in 9 directions
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on supply voltage and switching state from any position
- DC 4-wire, 10…65 VDC
- Changeover contact, NPN output
- Terminal chamber

## Wiring diagram




## Functional principle

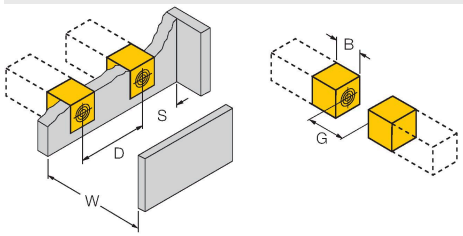
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

## Technical data

| | |
|---|---|
| Housing material | Plastic, PBT-GF30-V0, Black |
| Active area material | Plastic, PBT-GF30-V0, yellow |
| Electrical connection | Terminal chamber |
| Clamping ability | ≤ 2.5 mm² |
| 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** | 2 × LEDs,Green |
| Switching state | 2 × LEDs, Yellow |

## Mounting instructions

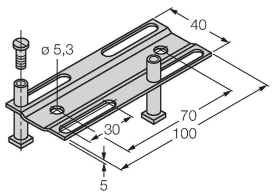
**Mounting instructions/Description**




| | |
|---|---|
| Distance D | 2 x B |
| Distance W | 3 x Sn |
| Distance S | 1 x B |
| Distance G | 6 x Sn |
| Width active area B | 40 mm |

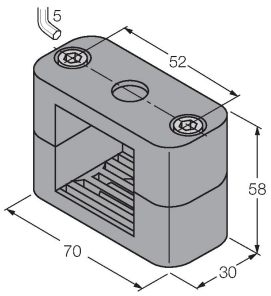
## Accessories

**JS025/037** **69429**




Adjusting bar for rectangular housings CK/CP40; material: VA 1.4301

**BSS-CP40** **6901318**




Mounting clamp for rectangular housings 40 x 40 mm; material: Polypropylene

BI20-CP40-VN4X2/S10| 11/19/2019 14-56 | technical changes reserved