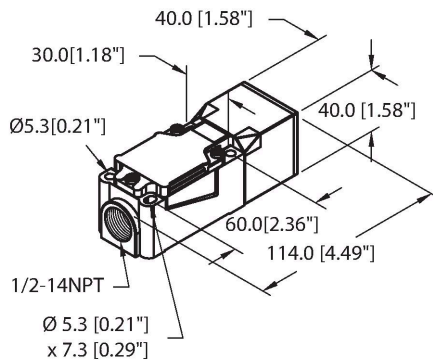


# BI15U-CP40-VP4X2/S10

## Inductive Sensor



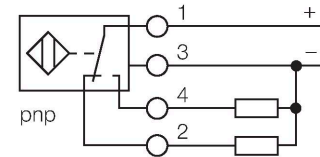
### Features

- 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
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- DC 4-wire, 10...65 VDC
- Changeover contact, PNP output
- Terminal chamber

### Technical data

|                                        |                                                                                    |
|----------------------------------------|------------------------------------------------------------------------------------|
| Type                                   | BI15U-CP40-VP4X2/S10                                                               |
| ID                                     | 1540501                                                                            |
| Special version                        | S10 Corresponds to: Mounting base with 1/2-14NPT thread                            |
| <b>General data</b>                    |                                                                                    |
| Rated switching distance               | 15 mm                                                                              |
| Mounting conditions                    | Flush                                                                              |
| Secured operating distance             | $\leq (0.81 \times S_n)$ mm                                                        |
| Repeat accuracy                        | $\leq 2 \%$ of full scale                                                          |
| Temperature drift                      | $\leq \pm 10 \%$<br>$\leq \pm 15 \%, \leq -25 \text{ °C} \vee \geq +70 \text{ °C}$ |
| Hysteresis                             | 3...15 %                                                                           |
| <b>Electrical data</b>                 |                                                                                    |
| Operating voltage $U_B$                | 10...65 VDC                                                                        |
| Ripple $U_{ss}$                        | $\leq 10 \%$ $U_{Bmax}$                                                            |
| DC rated operating current $I_B$       | $\leq 200$ 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 $I_B$                  | $\leq 1.8$ V                                                                       |
| Wire break/reverse polarity protection | yes/Complete                                                                       |
| Output function                        | 4-wire, Complementary contact, PNP                                                 |
| DC field stability                     | 300 mT                                                                             |

### Wiring diagram



### Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox Factor 1 sensors have significant advantages due to their patented ferrite-coreless multi-coil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.

Technical data

|                          |                                           |
|--------------------------|-------------------------------------------|
| AC field stability       | 300 mT <sub>ss</sub>                      |
| Insulation class         | □                                         |
| Switching frequency      | 0.25 kHz                                  |
| Mechanical data          |                                           |
| Design                   | Rectangular, CP40                         |
| Dimensions               | 114 x 40 x 40 mm                          |
| Housing material         | Plastic, PBT-GF30-V0, Black               |
| Active area material     | Plastic, PA6-GF30-X, yellow               |
| Electrical connection    | Terminal chamber                          |
| Clamping ability         | ≤ 2.5 mm <sup>2</sup>                     |
| 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 |
| Power-on indication      | 2 × LEDs, Green                           |
| Switching state          | 2 × LEDs, Yellow                          |

Mounting instructions

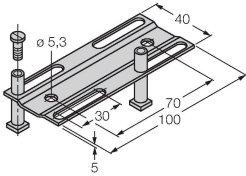
| Mounting instructions/Description                                                   |                          |
|-------------------------------------------------------------------------------------|--------------------------|
|  | Distance D2 x B          |
|                                                                                     | Distance W3 x Sn         |
|                                                                                     | Distance S1 x B          |
|                                                                                     | Distance G6 x Sn         |
|                                                                                     | Width active area B40 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

