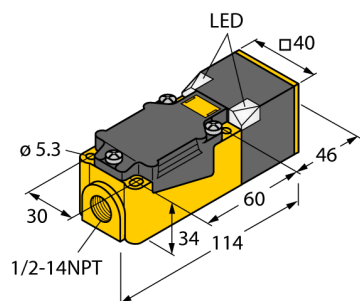




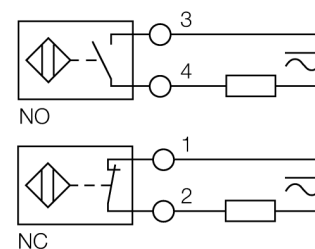
- Rectangular, height 40 mm
- Variable orientation of active face in 9 directions
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on supply voltage and switching state from any position
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- AC 2-wire, 20...250 VDC
- DC 2-wire, 10...300 VDC
- NC/NO programmable
- Terminal chamber

|                                           |                                                                      |
|-------------------------------------------|----------------------------------------------------------------------|
| <b>Type designation</b>                   | BI15U-CP40-FDZ30X2                                                   |
| Ident-No.                                 | 4280601                                                              |
| <b>Rated switching distance Sn</b>        | 15 mm                                                                |
| Mounting conditions                       | Flush                                                                |
| Secured operating distance                | $\leq (0,81 \times S_n) \text{ mm}$                                  |
| Repeat accuracy                           | $\leq 2 \% \text{ of full scale}$                                    |
| Temperature drift                         | $\leq \pm 10 \%$                                                     |
| Hysteresis                                | $\leq \pm 15 \%, \leq -25^\circ\text{C} \vee \geq +70^\circ\text{C}$ |
| Ambient temperature                       | $3 \dots 15 \%$<br>$-30 \dots +85^\circ\text{C}$                     |
| <b>Operating voltage</b>                  | 20...250VAC                                                          |
| Operating voltage                         | 10...300 VDC                                                         |
| AC rated operational current              | $\leq 400 \text{ mA}$                                                |
| DC rated operational current              | $\leq 300 \text{ mA}$                                                |
| Frequency                                 | $\geq 50 \dots \leq 60 \text{ Hz}$                                   |
| Residual current                          | $\leq 1.7 \text{ mA}$                                                |
| Isolation test voltage                    | $\leq 1.5 \text{ kV}$                                                |
| Surge current                             | $\leq 3 \text{ A} (\leq 20 \text{ ms max. } 5 \text{ Hz})$           |
| Short-circuit protection                  | yes/ Latching                                                        |
| Voltage drop at $I_n$                     | $\leq 6 \text{ V}$                                                   |
| Wire breakage/Reverse polarity protection | yes/ Complete                                                        |
| Output function                           | 2-wire, Connection programmable                                      |
| Smallest operating current $I_m$          | $\geq 3 \text{ mA}$                                                  |
| Protection class                          | IP68                                                                 |
| Switching frequency                       | 0.01 kHz                                                             |

|                       |                                                        |
|-----------------------|--------------------------------------------------------|
| <b>Design</b>         | 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      | $\leq 2.5 \text{ mm}^2$                                |
| Vibration resistance  | 55 Hz (1 mm)                                           |
| Shock resistance      | 30 g (11 ms)                                           |
| Protection class      | IP68                                                   |
| MTTF                  | 874 years acc. to SN 29500 (Ed. 99) $40^\circ\text{C}$ |

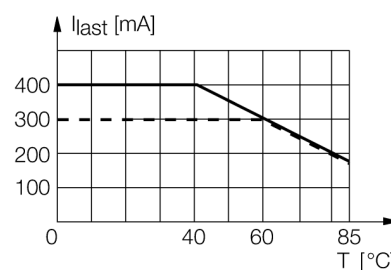
|                            |                  |
|----------------------------|------------------|
| <b>Power-on indication</b> | 2 x LEDs, Green  |
| Switching state            | 2 x LEDs, Yellow |

#### Wiring Diagram



#### Functional principle

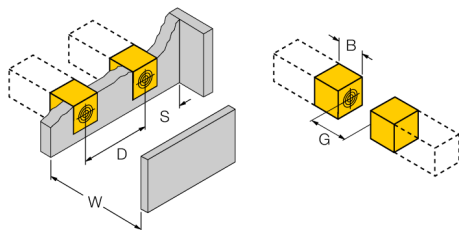
Inductive sensors detect metal objects contactless and wear-free. *uprox®* Factor 1 sensors have significant advantages due to their patented ferrite-coreless multicoil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.



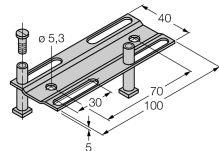
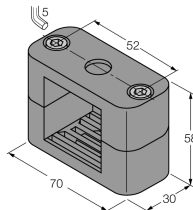
**Inductive sensor  
BI15U-CP40-FDZ30X2**

|            |        |
|------------|--------|
| 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

| Type code                | Ident-No. | Description                                                         |                                                                                     |
|--------------------------|-----------|---------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Adjusting bar JS 025/037 | 69429     | Adjusting bar for rectangular housings CK/CP40; material: VA 1.4301 |  |
| BSS-CP40                 | 6901318   | Mounting bracket for rectangular devices; material: Polypropylene   |  |