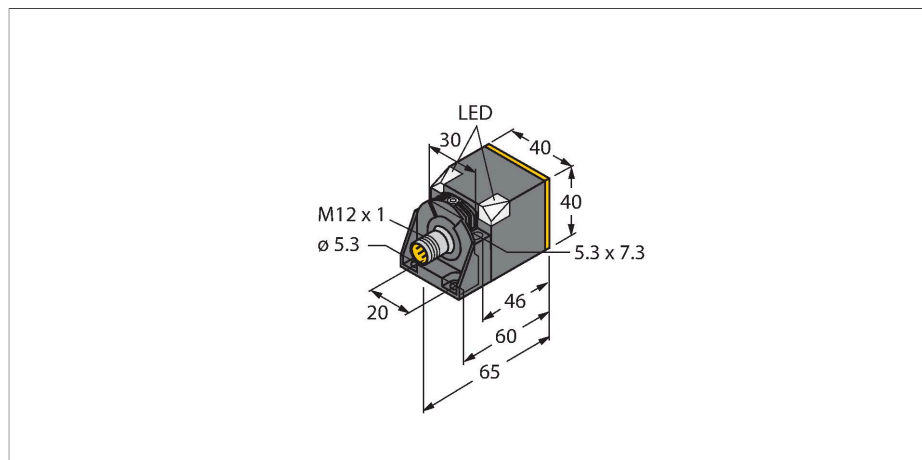


# BI30U-CK40-AP6X2-H1141

## Inductive sensor



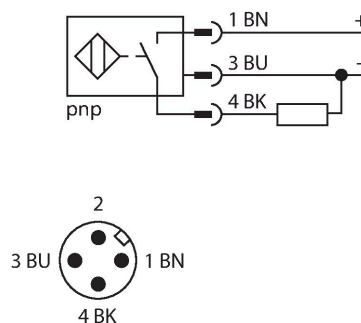
### Technical data

|   |  |
|---|--|
| Type                                      | BI30U-CK40-AP6X2-H1141   |
| Ident. no.                                | 1625829  |
| Rated switching distance                  | 30 mm  |
| Mounting conditions                       | Flush  |
| Secured operating distance                | $\leq (0.81 \times S_n)$ mm  |
| Repeat accuracy                           | $\leq 2\%$ of full scale   |
| Temperature drift                         | $\leq \pm 10\%$  |
| Hysteresis                                | 3...15 %   |
| Ambient temperature                       | -10...+60 °C   |
| Operating voltage                         | 10...30 VDC  |
| Residual ripple                           | $\leq 10\% U_{s\prime}$  |
| 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 $I_e$                     | $\leq 1.8$ V   |
| Wire breakage/Reverse polarity protection | yes / Complete   |
| Output function                           | 3-wire, NO contact, PNP  |
| Insulation class                          | □  |
| Switching frequency                       | 0.25 kHz   |
| <b>Design</b>                             | <b>Rectangular, CK40</b>   |
| Dimensions                                | 65 x 40 x 40 mm<br>variable orientation of active face in 5 directions |
| Housing material                          | Plastic, PBT-GF20-V0, Black  |
| Active area material                      | Plastic, PA12-GF30, yellow   |
| Electrical connection                     | Connectors, M12 x 1  |

### Features

- Rectangular, height 40 mm
- Variable orientation of active face in 5 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
- Large coverage
- High switching frequency
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

### Wiring diagram



### Functional principle

Inductive sensors detect metal objects contactless and wear-free. Due to the patented multi-coil system, *uprox*<sup>®</sup>+ sensors have distinct advantages over conventional sensors. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient standardization.

## Technical data

|                      |   |
|----------------------|---|
| 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                          |
| Included in delivery | Fixing clamp BS4-CK40                     |

## Mounting instructions

| Mounting instructions/Description |   |        |
|-----------------------------------|---|--------|
|                                   | Distance D  | 80 mm  |
|                                   | Distance W  | 90 mm  |
|                                   | Distance S  | 40 mm  |
|                                   | Distance G  | 180 mm |
|                                   | Width active area B   | 40 mm  |
|                                   | <p>When installing the sensor in an aperture plate (sheet metal, e.g., a step plate) the sensor must be fully embedded in metal for reliable detection of the target.</p> |        |

## Accessories

| BSS-CP40 | 6901318  |
|----------|--|
|          | <p>Mounting clamp for rectangular housings 40 x 40 mm; material: Polypropylene</p> |

## Accessories

| Dimension drawing | Type        | Ident. no. |   |
|-------------------|-------------|------------|---|
|                   | RKC4T-2/TEL | 6625010    | <p>Connection cable, female M12, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a></p> |



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