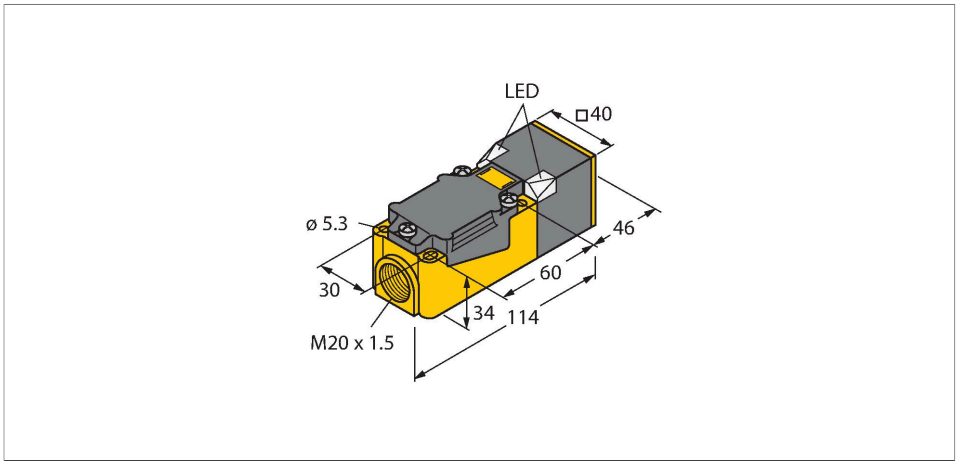
# BI30U-CP40-AP6X2
# Inductive Sensor



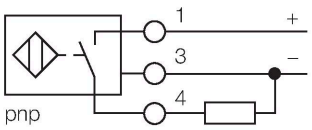

## Technical data

| | |
|---|---|
| Type | BI30U-CP40-AP6X2 |
| Ident. no. | 1625830 |
| Rated switching distance | 30 mm |
| Mounting conditions | Flush |
| Secured operating distance | ≤ (0.81 × Sn) mm |
| Repeat accuracy | ≤ 2 % of full scale |
| Temperature drift | ≤ ± 10 % |
| Hysteresis | 3…15 % |
| Ambient temperature | -10…+60 °C |
| Operating voltage | 10…30 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 $I_e$ | ≤ 1.8 V |
| Wire breakage/Reverse polarity protection | yes / Complete |
| Output function | 3-wire, NO contact, PNP |
| Insulation class | ⧈ |
| Switching frequency | 0.25 kHz |
| Design | Rectangular, CP40 |
| Dimensions | 114 x 40 x 40 mm |
| Housing material | Plastic, PBT-GF30-V0, Black |

## 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
- Large coverage
- High switching frequency
- DC 3-wire, 10…30 VDC
- NO contact, PNP output
- Terminal chamber

## Wiring diagram




## Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

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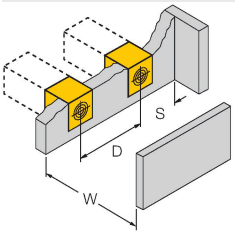
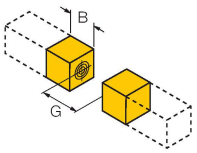
## Technical data

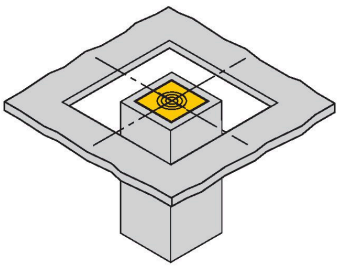
| | |
|---|---|
| Active area material | Plastic, PA6-GF30-X, yellow |
| Electrical connection | Terminal chamber |
| Clamping ability | ≤ 2.5 mm² |
| Vibration resistance | 55 Hz (1 mm) |
| Shock resistance | 30 g (11 ms) |
| Protection class | IP68 |
| MTTF | 874 years acc. to SN 29500 (Ed. 99) 40 °C |
| Power-on indication | 2 × LEDs, Green |
| Switching state | 2 × LEDs, Yellow |

## Mounting instructions

Mounting instructions/Description



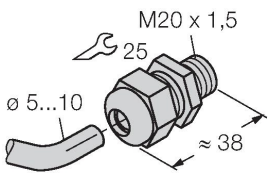



| | |
|---|---|
| Distance D | 80 mm |
| Distance W | 90 mm |
| Distance S | 40 mm |
| Distance G | 180 mm |
| Width active area B | 40 mm |

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.

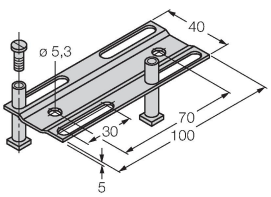
## Accessories

STRM M20X1.5 SCHWARZ 6965902



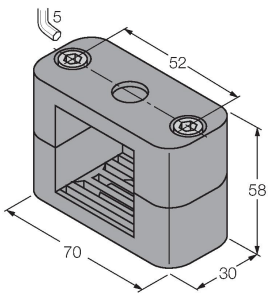

M20 × 1.5 cable gland

Adjusting bar JS 025/037 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

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