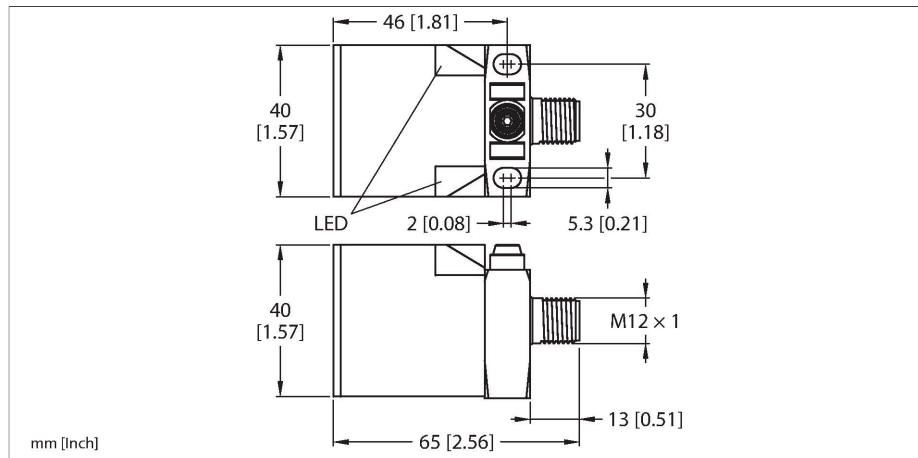


# BI15-CK40-AP6X2-H1141

## Inductive Sensor



### Technical data

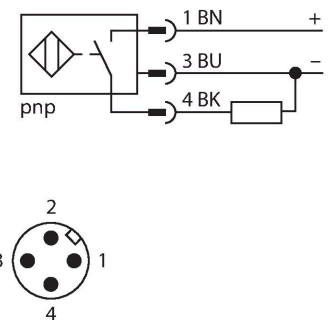
|                                        |                                                     |
|----------------------------------------|-----------------------------------------------------|
| Type                                   | BI15-CK40-AP6X2-H1141                               |
| ID                                     | 16250                                               |
| <b>General data</b>                    |                                                     |
| Rated switching distance               | 15 mm                                               |
| Mounting conditions                    | Flush                                               |
| Secured operating distance             | $\leq (0.81 \times S_n)$ mm                         |
| Correction factors                     | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeat accuracy                        | $\leq 2 \%$ of full scale                           |
| Hysteresis                             | 3...15 %                                            |
| <b>Electrical data</b>                 |                                                     |
| Operating voltage $U_B$                | 10...30 VDC                                         |
| Ripple $U_{ss}$                        | $\leq 10 \%$ $U_{Bmax}$                             |
| DC rated operating current $I_o$       | $\leq 200$ 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 $I_o$                  | $\leq 1.8$ V                                        |
| Wire break/reverse polarity protection | yes/Complete                                        |
| Output function                        | 3-wire, NO contact, PNP                             |
| Switching frequency                    | 0.15 kHz                                            |
| <b>Mechanical data</b>                 |                                                     |
| Design                                 | Rectangular, CK40                                   |
| Dimensions                             | 65 x 40 x 40 mm                                     |
|                                        | variable orientation of active face in 5 directions |
| Housing material                       | Plastic, PBT-GF20-V0, Black                         |



### 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
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

### Wiring diagram



### Functional principle

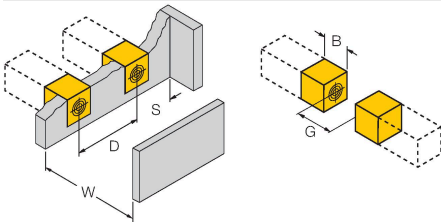
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

Technical data

|                          |                                            |
|--------------------------|--------------------------------------------|
| Active area material     | Plastic, PA12-GF30, yellow                 |
| Electrical connection    | Connector, M12 × 1                         |
| Environmental conditions |                                            |
| Ambient temperature      | -25...+70 °C                               |
| 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                           |
| Included in delivery     | BS1-CK40                                   |

Mounting instructions

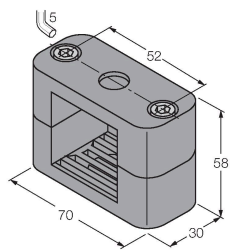
Mounting instructions/Description



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

Accessories

|          |         |
|----------|---------|
| BSS-CP40 | 6901318 |
|----------|---------|



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

Accessories

| Dimension drawing | Type        | ID      |                                                                                                                         |
|-------------------|-------------|---------|-------------------------------------------------------------------------------------------------------------------------|
|                   | RKC4T-2/TEL | 6625010 | Connection cable, M12 female connector, straight, 3-pin, cable length: 2 m, jacket material: PVC, black; cULus approval |

