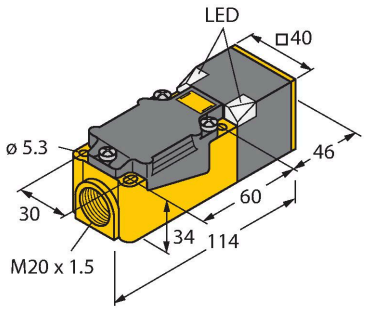
# BI15-CP40-FZ3X2
# Inductive Sensor



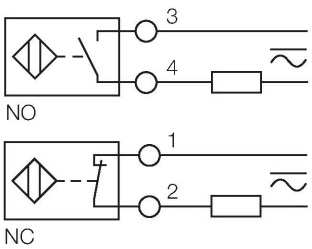

## Technical data

| Type | BI15-CP40-FZ3X2 |
|---|---|
| ID | 13400 |
| **General data** | |
| Rated switching distance | 15 mm |
| Mounting conditions | Flush |
| Secured operating distance | ≤ (0.81 × Sn) mm |
| Correction factors | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeat accuracy | ≤ 2 % of full scale |
| Temperature drift | ≤ ±10 % |
| Hysteresis | 3…15 % |
| **Electrical data** | |
| Operating voltage | 20…250 VAC |
| Operating voltage | 10…300 VDC |
| AC rated operational current | ≤ 400 mA |
| DC rated operational current | ≤ 300 mA |
| Frequency | ≥ 50…≤ 60 Hz |
| Residual current | ≤ 1.7 mA |
| Isolation test voltage | ≤ 1.5 kV |
| Surge current | ≤ 8 A (≤ 10 ms max. 5 Hz) |
| Voltage drop at $I_e$ | ≤ 6 V |
| Output function | 2-wire, Connection programmable, 2-wire |
| Smallest operating current | ≥ 3 mA |
| Switching frequency | 0.02 kHz |

## Features

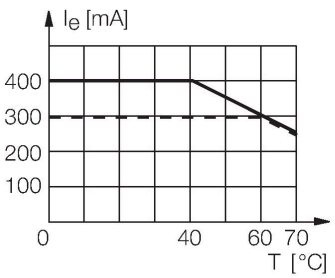
- Rectangular, height 40 mm
- Variable orientation of active face in 9 directions
- Plastic, PBT-GF30-VO
- AC 2-wire, 20…250 VAC
- DC 2-wire, 10…300 VDC
- NC/NO programmable
- Terminal chamber

## 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.

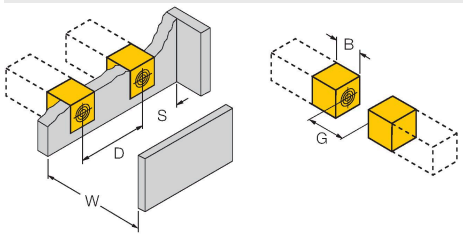


## Technical data

| Mechanical data | |
|---|---|
| Design | Rectangular, CP40 |
| Dimensions | 114 x 40 x 40 mm |
| Housing material | Plastic, PBT-GF30-V0, Black |
| Active area material | Plastic, PBT-GF30-V0, yellow |
| Electrical connection | Terminal chamber |
| Clamping ability | ≤ 2.5 mm² |
| **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 | LED, Green |
| Switching state | LED, Red |

## Mounting instructions

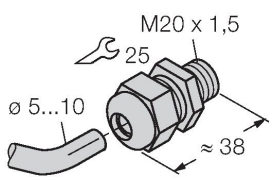
Mounting instructions/Description




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

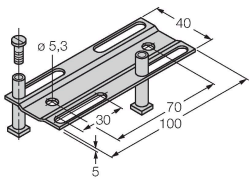
## Accessories

| STRM M20X1.5 SCHWARZ | 6965902 |
|---|---|



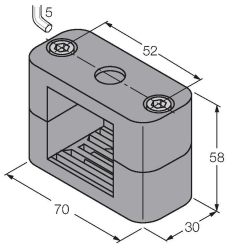

M20 × 1.5 cable gland

| 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