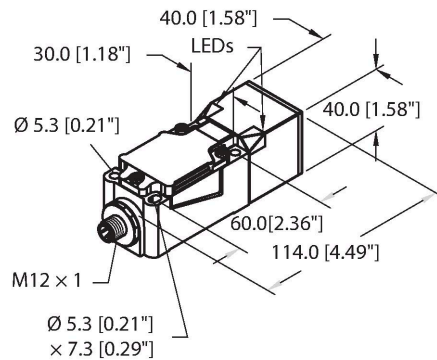


# BI15-CP40-LIU-H1141

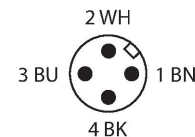
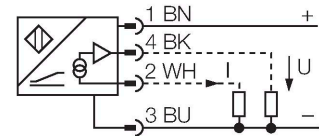
## Inductive sensor – With Analog Output



### Features

- Rectangular, height 40 mm
- Variable orientation of active face in 9 directions
- Plastic, PBT-GF30-V0
- 4-wire, 15...30 VDC
- Analog output
- 0...10 V and 0...20 mA
- M12 x 1 male connector

### Wiring diagram

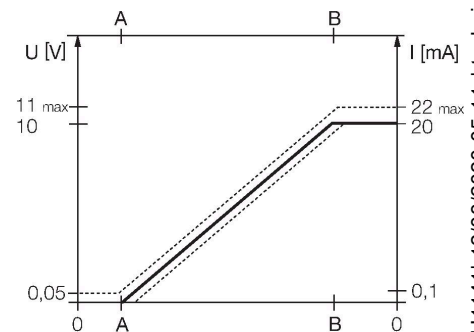


### Technical data

|                                           |                                                       |
|-------------------------------------------|-------------------------------------------------------|
| Type                                      | BI15-CP40-LIU-H1141                                   |
| Ident. no.                                | 1535795                                               |
| Measuring range                           | 4...11 mm                                             |
| 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   |
| Repeatability                             | $\leq 1 \%$ of measuring range  A - B                 |
|                                           | 0.5 %, after warm-up 0.5 h                            |
| Reproducibility                           | $\leq 70 \mu\text{m}$                                 |
|                                           | $\leq 35 \mu\text{m}$ , after a warm-up time of 0.5 h |
| Linearity deviation                       | $\leq 3 \%$                                           |
| Temperature drift                         | $\leq \pm 10 \%$                                      |
| Temperature drift                         | $\leq \pm 0.06 \%$ / K                                |
| Ambient temperature                       | -25...+70 °C                                          |
| Operating voltage                         | 15...30 VDC                                           |
| Residual ripple                           | $\leq 10 \%$ $U_{ss}$                                 |
| No-load current                           | $\leq 8 \text{ mA}$                                   |
| Isolation test voltage                    | $\leq 0.5 \text{ kV}$                                 |
| Short-circuit protection                  | yes                                                   |
| Wire breakage/Reverse polarity protection | no / Complete                                         |
| Output function                           | 4-wire, Analog output                                 |
| Voltage output                            | 0...10 V                                              |
| Current output                            | 0...20 mA                                             |

### Functional principle

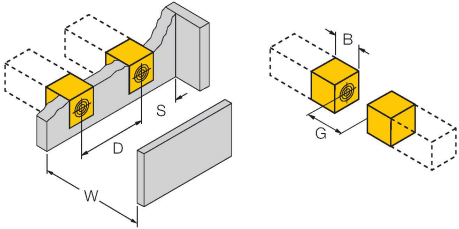
Inductive TURCK sensors with analog output accomplish simple control tasks. They provide a current, voltage or frequency signal proportional to the target's distance. The output signal is linear to the distance of the target over the entire sensing range.



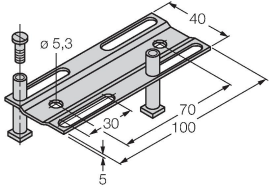
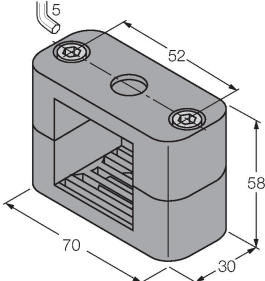
## Technical data

|                                 |                                           |
|---------------------------------|-------------------------------------------|
| Load resistance voltage output  | $\geq 4.7 \text{ k}\Omega$                |
| Load resistance, current output | $\leq 0.4 \text{ k}\Omega$                |
| Measuring sequence frequency    | 110 Hz                                    |
| <b>Design</b>                   | 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           | Connector, M12 x 1                        |
| Clamping ability                | $\leq 2.5 \text{ mm}^2$                   |
| Vibration resistance            | 55 Hz (1 mm)                              |
| Shock resistance                | 30 g (11 ms)                              |
| Protection class                | IP67                                      |
| MTTF                            | 751 years acc. to SN 29500 (Ed. 99) 40 °C |

## Mounting instructions

| Mounting instructions/Description                                                   |                           |
|-------------------------------------------------------------------------------------|---------------------------|
|  | Distance D 80 mm          |
|                                                                                     | Distance W 33 mm          |
|                                                                                     | Distance S 40 mm          |
|                                                                                     | Distance G 66 mm          |
|                                                                                     | Width active area B 40 mm |

## Accessories

|                                                                                                                        |                                                                                     |                                                                                                         |                                                                                               |
|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| <b>Adjusting bar JS 025/037</b><br> | <b>69429</b><br>Adjusting bar for rectangular housings CK/CP40; material: VA 1.4301 | <b>BSS-CP40</b><br> | <b>6901318</b><br>Mounting clamp for rectangular housings 40 x 40 mm; material: Polypropylene |
|------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|