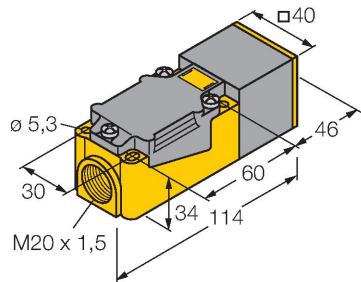


# NI25-CP40-LIU

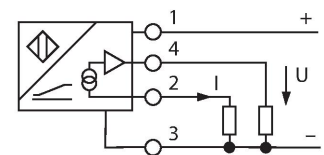
## Inductive Sensor – With Analog Output



### Features

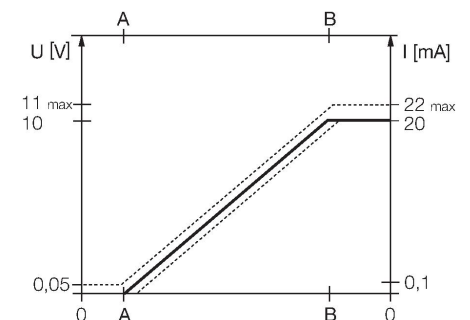
- Rectangular, height 40 mm
- Variable orientation of active face in 9 directions
- Plastic, PBT-GF30-VO
- High-luminance corner LEDs
- Optimum view of operating voltage and switching state from any position
- 4-wire, 15...30 VDC
- Analog output
- 0...10 V and 0...20 mA
- Terminal chamber

### Wiring diagram



### 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.



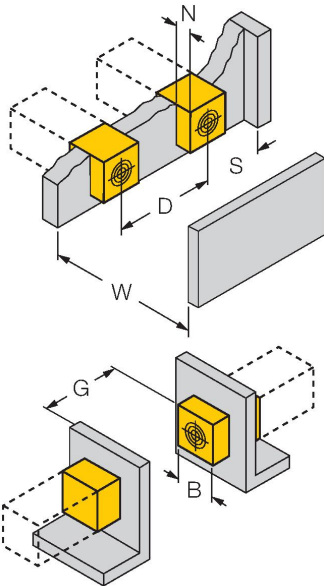
### Technical data

|                                        |                                                     |
|----------------------------------------|-----------------------------------------------------|
| Type                                   | NI25-CP40-LIU                                       |
| ID                                     | 1535544                                             |
| General data                           |                                                     |
| Measuring range                        | 5...25 mm                                           |
| Mounting conditions                    | Non-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                        | $\leq 200$ $\mu$ m                                  |
|                                        | $\leq 100$ $\mu$ m, after a warm-up time of 0.5 h   |
| Linearity deviation                    | $\leq 5$ %                                          |
| Temperature drift                      | $\leq \pm 10$ %                                     |
| Temperature drift                      | $\leq \pm 0.06$ %/K                                 |
| Electrical data                        |                                                     |
| Operating voltage $U_B$                | 15...30 VDC                                         |
| Ripple $U_{ss}$                        | $\leq 10$ % $U_{Bmax}$                              |
| No-load current                        | $\leq 8$ mA                                         |
| Isolation test voltage                 | 0.5 kV                                              |
| Short-circuit protection               | yes                                                 |
| Wire break/reverse polarity protection | no/Complete                                         |
| Output function                        | 4-wire, Analog output                               |
| Voltage output                         | 0...10 V                                            |
| Current output                         | 0...20 mA                                           |
| Load resistance voltage output         | $\geq 4.7$ k $\Omega$                               |
| Load resistance current output         | $\leq 0.4$ k $\Omega$                               |

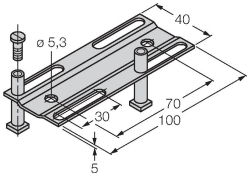
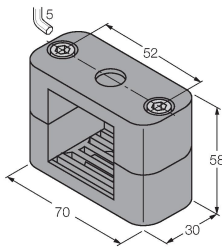
Technical data

|                              |                                           |
|------------------------------|-------------------------------------------|
| Measuring sequence frequency | 30 Hz                                     |
| 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                         | 751 years acc. to SN 29500 (Ed. 99) 40 °C |

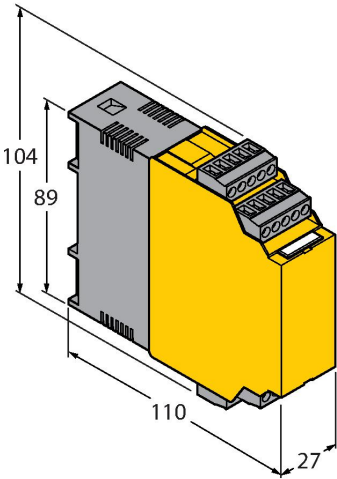
Mounting instructions

|                                                                                     |                     |        |
|-------------------------------------------------------------------------------------|---------------------|--------|
| Mounting instructions/Description                                                   |                     |        |
|  | Distance D          | 120 mm |
|                                                                                     | Distance W          | 75 mm  |
|                                                                                     | Distance S          | 120 mm |
|                                                                                     | Distance G          | 150 mm |
|                                                                                     | Distance N          | 40 mm  |
|                                                                                     | Width active area B | 40 mm  |
|                                                                                     |                     |        |

Accessories

|                                                                                   |       |                                                                                    |         |
|-----------------------------------------------------------------------------------|-------|------------------------------------------------------------------------------------|---------|
| JS025/037                                                                         | 69429 | BSS-CP40                                                                           | 6901318 |
| Adjusting bar for rectangular housings CK/CP40; material: VA 1.4301               |       | Mounting clamp for rectangular housings 40 x 40 mm; material: Polypropylene        |         |
|  |       |  |         |

Accessories

| Dimension drawing                                                                  | Type       | ID      |                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------|------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | IM43-13-SR | 7540041 | Trip amplifier; 1-channel; input 0/4... 20 mA or 0/2...10 V; supply of 2- or 3-wire transmitters/sensors; limit value adjustment via teach button; three relay outputs with one NO contact each; removable terminal blocks; 27 mm wide; universal voltage supply 20...250 VUC; further Limit value indicators are described in our "Interface Technology" catalog. |
|                                                                                    |            |         |                                                                                                                                                                                                                                                                                                                                                                    |