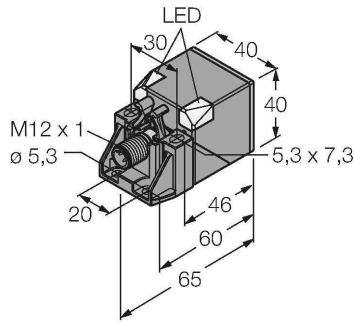


# NI40UE-QV40-VP6X2-H1141

## Inductive Sensor – With Extended Switching Distance



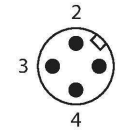
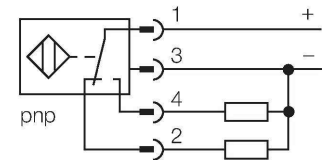
### Features

- Rectangular, height 40 mm
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on supply voltage and switching state from any position
- Factor 1 for all metals
- Increased switching distance
- Protection class IP68
- Resistant to magnetic fields
- DC 4-wire, 10...30 VDC
- Changeover contact, PNP output
- M12 x 1 male connector

### Technical data

|   |  |
|---|--|
| Type                                      | NI40UE-QV40-VP6X2-H1141  |
| ID  | 100018883  |
| <b>General data</b>                       |  |
| Rated switching distance                  | 40 mm  |
| Mounting conditions                       | Non-flush  |
| Secured operating distance                | $\leq (0.81 \times S_n)$ mm                                    |
| Repeat accuracy                           | $\leq 2 \%$ of full scale                                      |
| Temperature drift                         | $\leq \pm 10 \%$   |
|   | $\leq \pm 20 \%, \leq -25 \text{ °C} \vee \geq +70 \text{ °C}$ |
| Hysteresis                                | 3...15 %   |
| <b>Electrical data</b>                    |  |
| Operating voltage                         | 10...30 VDC  |
| Residual ripple                           | $\leq 10 \%$ $U_{ss}$  |
| DC rated operational current              | $\leq 200$ mA  |
| No-load current                           | 15 mA  |
| Residual current                          | $\leq 0.1$ mA  |
| Isolation test voltage                    | $\leq 0.5$ kV  |
| Short-circuit protection                  | yes / Cyclic   |
| Voltage drop at $I_o$                     | $\leq 1.8$ V   |
| Wire breakage/Reverse polarity protection | yes / Complete   |
| Output function                           | 4-wire, Complementary contact, PNP                             |
| DC field stability                        | 300 mT   |
| AC field stability                        | 300 mT <sub>SS</sub>   |
| Insulation class                          | □  |

### Wiring diagram



### Functional principle

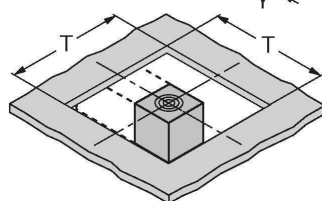
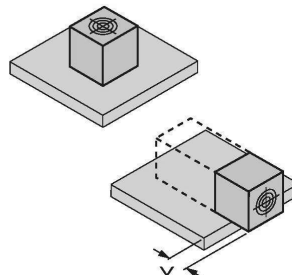
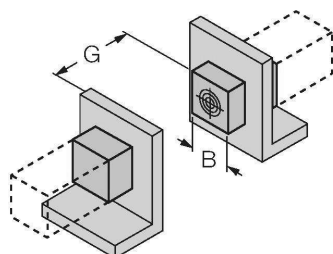
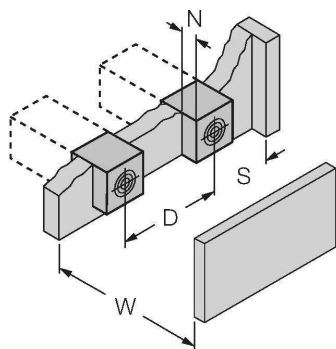
Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

## Technical data

|                                 |   |
|---------------------------------|---|
| Switching frequency             | 0.25 kHz  |
| <b>Mechanical data</b>          |   |
| Design                          | Rectangular, QV40                                   |
| Dimensions                      | 65 x 40 x 40 mm                                     |
|                                 | variable orientation of active face in 5 directions |
| Housing material                | Plastic, PBT-GF30-V0, Black                         |
| Active area material            | Plastic, PA6-GF30-X, yellow                         |
| Electrical connection           | Connector, M12 × 1                                  |
| <b>Environmental conditions</b> |   |
| Ambient temperature             | -30...+85 °C  |
| 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           |
| <b>Power-on indication</b>      |   |
| Switching state                 | 2 × LEDs, Green                                     |
|                                 | 2 × LEDs, Yellow                                    |
| Included in delivery            | Fixing clamp for QV40                               |

## Mounting instructions

### Mounting instructions/Description



Distance D 240 mm

Distance W 120 mm

Distance T 100 mm

Distance S 60 mm

Distance G 240 mm

Distance N 40 mm

Width active area B 40 mm

Protruded mounting:  
y = 20 mm: Sr = 40 mm  
y = 30 mm: Sr = 40 mm  
y = 40 mm: Sr = 40 mm

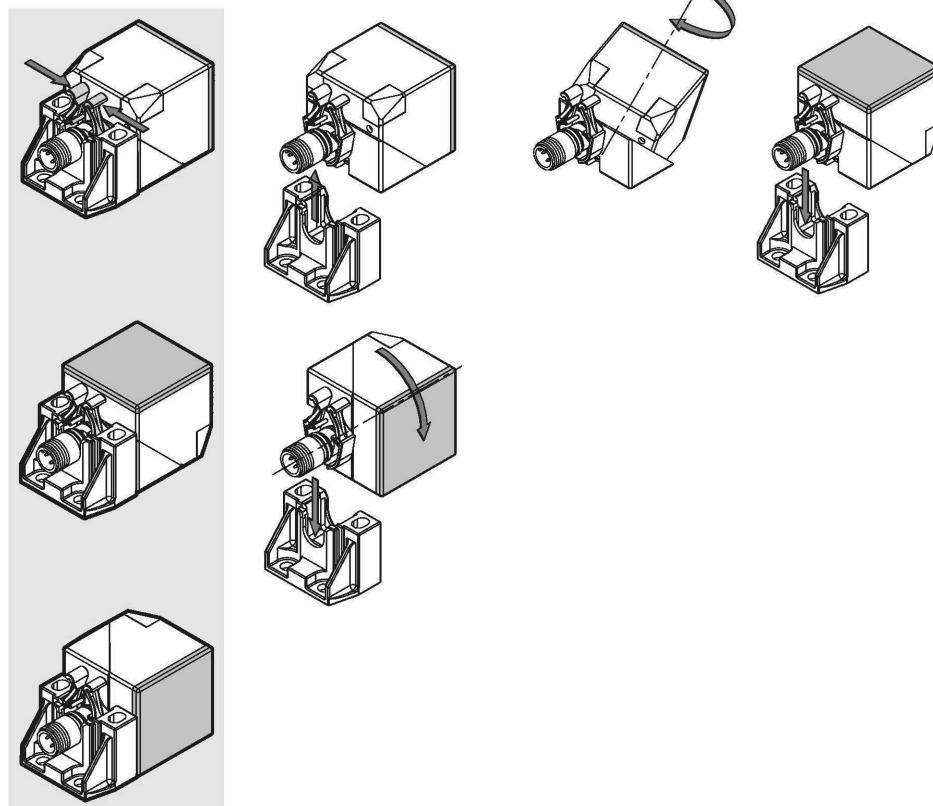
Mounting position in aperture plate: T = 100 mm:

Twisted mounting position  
On metal Sr = 40 mm

The active face of the sensor can be aligned in 5 directions without tools and using only one hand.

Squeeze the bracket to release the sensor from the mounting bracket. Now, align the sensor with the active face pointing in the desired direction.

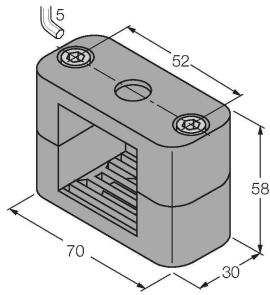
Then, snap the sensor back into the bracket. The sensor is now securely locked in position.



## Accessories

BSS-CP40

6901318



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