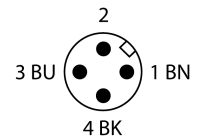
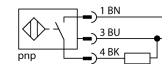


- Rectangular, height 40 mm
- Variable orientation of active face in 5 directions without tools
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on supply voltage and switching state from any position
- Factor 1 for all metals
- Increased switching distance
- Protection class IP68
- Resistant to magnetic fields
- Auto-compensation protects against pre-attenuation
- Partially embeddable
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

#### Wiring Diagram



#### Functional principle

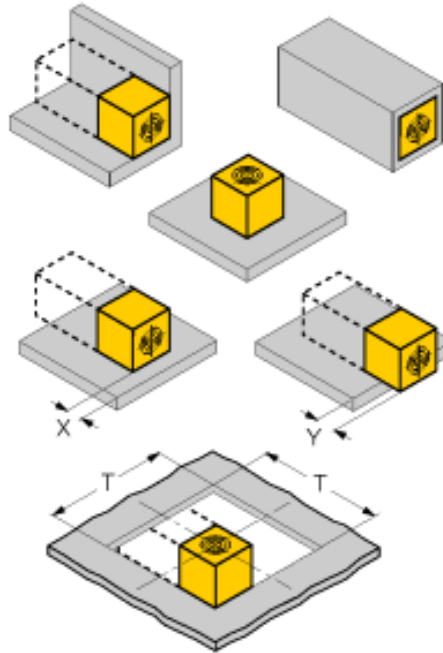
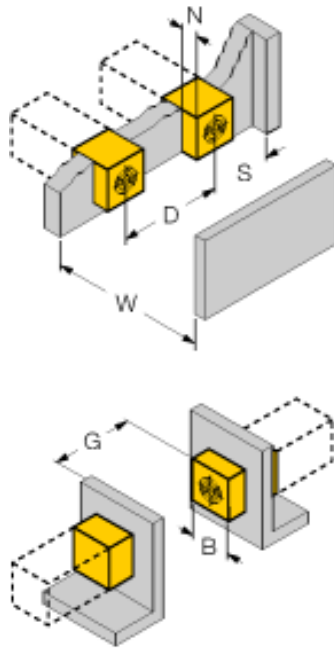
Inductive sensors detect metal objects contactless and wear-free. Due to the patented multicore system, *uprox*<sup>®</sup>+ sensors have distinct advantages over conventional sensors. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient standardization.

The active face can be aligned in 5 directions without tools. The sensor is thus installed comfortably, simply and quickly where necessary.

<b>Type designation</b>	NI50U-QV40-AP6X2-H1141
Ident no.	1625853
<b>Rated switching distance <math>S_n</math></b>	50 mm
Mounting conditions	Non-flush, flush mountable
Secured operating distance	$\leq (0,81 \times S_n)$ mm
Repeat accuracy	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$
Hysteresis	$\leq \pm 20\%$ , $\leq -25\text{ °C}$ v $\geq +70\text{ °C}$
Ambient temperature	3...15 °C
<b>Operating voltage</b>	10...30 VDC
Residual ripple	$\leq 10\%$ $U_{ss}$
DC rated operational current	$\leq 200$ mA
No-load current $I_0$	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes/ Cyclic
Voltage drop at $I_0$	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NO contact, PNP
Reverse polarity protection	Complete
Protection class	IP68
Switching frequency	0.25 kHz
<b>Design</b>	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 x 1
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>	2 x LEDs green
Switching state	LED yellow
Included in delivery	Fixing clamp for QV40

Distance D	240 mm
Distance W	105 mm
Distance S	60 mm
Distance G	300 mm
Distance N	30 mm

Width active area B 40 mm



**Flush mounting**

- 1-side mounting:  $S_r = 35 \text{ mm}$ ;  $D = 240 \text{ mm}$
- 2-side mounting:  $S_r = 25 \text{ mm}$ ;  $D = 240 \text{ mm}$
- 3-side mounting:  $S_r = 20 \text{ mm}$ ;  $D = 80 \text{ mm}$
- 4-side mounting:  $S_r = 17 \text{ mm}$ ;  $D = 60 \text{ mm}$

Backside as well as recessed mounting with reduced switching distance

**Recessed mounting in metal:**

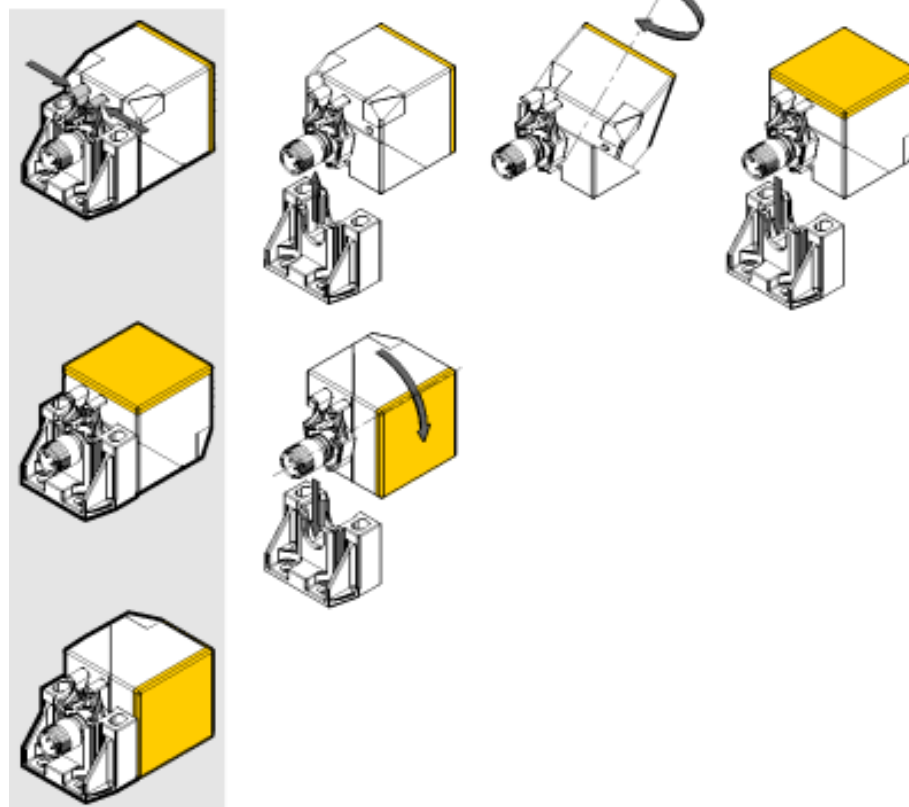
- $x = 10 \text{ mm}$ :  $S_r = 20 \text{ mm}$
- $x = 20 \text{ mm}$ :  $S_r = 20 \text{ mm}$
- $x = 30 \text{ mm}$ :  $S_r = 20 \text{ mm}$
- $x = 40 \text{ mm}$ :  $S_r = 20 \text{ mm}$

**Protruded mounting:**

- $y = 10 \text{ mm}$ :  $S_r = 40 \text{ mm}$
- $y = 20 \text{ mm}$ :  $S_r = 50 \text{ mm}$
- $y = 30 \text{ mm}$ :  $S_r = 50 \text{ mm}$
- $y = 40 \text{ mm}$ :  $S_r = 50 \text{ mm}$

**Mounting in aperture plate:  $T = 150 \text{ mm}$ :**

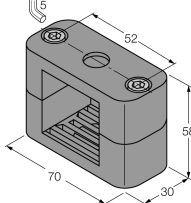
- Sensor with twisted turning angle
- On metal  $S_r = 50 \text{ mm}$
- Metal-enclosed on one side  $S_r = 25 \text{ mm}$
- Metal-enclosed on two sides  $S_r = 15 \text{ mm}$
- Metal-enclosed on three sides  $S_r = 12 \text{ mm}$



With a single action the active face can be positioned in 5 directions without tools.

A light squeeze of the bracket is enough to release the sensor from the fixing clamp. Afterwards, the active face can easily be twisted to change the position. Once the final position is attained, the sensor is simply inserted in the fixing clamp until the clamp snaps in. Safe and easy mounting is thus guaranteed.

**Accessories**

Type code	Ident no.	Description	
BSS-CP40	6901318	Mounting bracket for rectangular devices; material: Polypropylene	

**Wiring accessories**

Type code	Ident no.	Description	
RKC4T-2/TEL	6625010	Connection cable, female M12, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>	