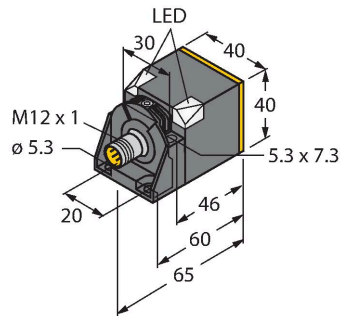


# NI50U-CK40-AN6X2-H1141

## Inductive Sensor



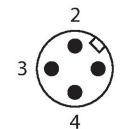
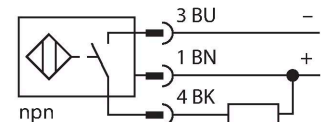
### Features

- Rectangular, height 40 mm
- Variable orientation of active face in 5 directions
- 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-damping
- Partially embeddable
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- M12 x 1 male connector

### Technical data

Type	NI50U-CK40-AN6X2-H1141
Ident. no.	1625823
Rated switching distance	50 mm
Mounting conditions	Non-flush, flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
	$\leq \pm 20 \%, \leq -25 \text{ }^{\circ}\text{C} \vee \geq +70 \text{ }^{\circ}\text{C}$
Hysteresis	3...15 %
Ambient temperature	-30...+85 °C
Operating voltage	10...30 VDC
Residual ripple	$\leq 10 \%$ $U_{ss}$
DC rated operational current	$\leq 200$ mA
No-load current	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes / Cyclic
Voltage drop at $I_o$	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, NPN
Insulation class	□
Switching frequency	0.25 kHz
Design	Rectangular, CK40
Dimensions	65 x 40 x 40 mm

### Wiring diagram



### Functional principle

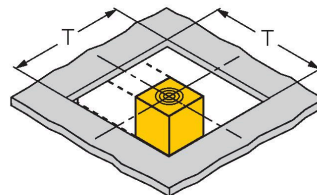
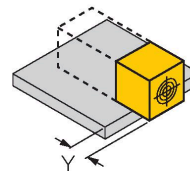
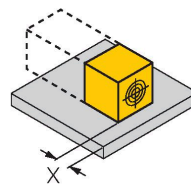
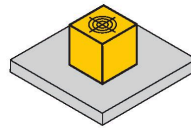
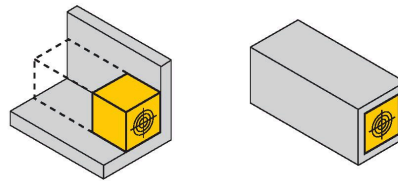
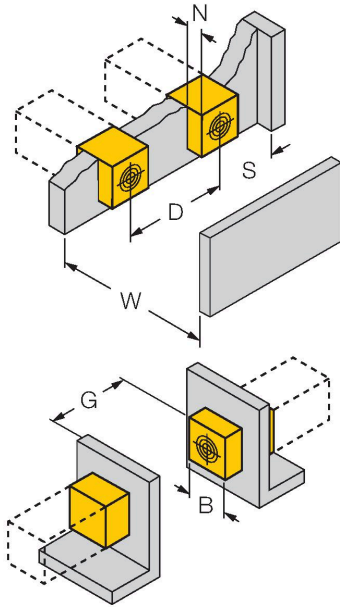
Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox+ sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

## Technical data

	variable orientation of active face in 5 directions
Housing material	Plastic, PBT-GF20-V0, Black
Active area material	Plastic, PA12-GF30, yellow
Electrical connection	Connector, M12 × 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
Power-on indication	2 × LEDs, Green
Switching state	2 × LEDs, Yellow
Included in delivery	Fixing clamp BS4-CK40

## Mounting instructions

### Mounting instructions/Description



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:  $S_r = 35$  mm;  $D = 240$  mm

2-side mounting:  $S_r = 25$  mm;  $D = 240$  mm

3-side mounting:  $S_r = 20$  mm;  $D = 80$  mm

4-side mounting:  $S_r = 15$  mm;  $D = 60$  mm

Backside as well as recessed mounting with reduced switching distance

#### Recessed mounting in metal:

$x = 10$  mm:  $S_r = 20$  mm

$x = 20$  mm:  $S_r = 20$  mm

$x = 30$  mm:  $S_r = 20$  mm

$x = 40$  mm:  $S_r = 20$  mm

#### Protruded mounting:

$y = 10$  mm:  $S_r = 40$  mm

$y = 20$  mm:  $S_r = 50$  mm

$y = 30$  mm:  $S_r = 50$  mm

$y = 40$  mm:  $S_r = 50$  mm

#### Mounting in aperture plate:

$T = 150$  mm:

Sensor with twisted turning angle

On metal  $S_r = 50$  mm

Metal-enclosed on one side  $S_r = 25$  mm

Metal-enclosed on two sides  $S_r = 15$  mm

Metal-enclosed on three sides  $S_r = 12$  mm

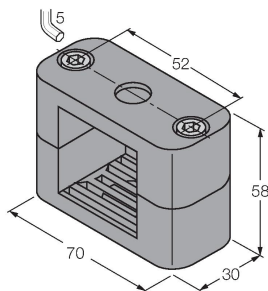
The values stated relate to a 1 mm thick steel plate.

## Accessories


BSS-CP40

6901318

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



Wiring accessories

Dimension drawing	Type	Ident. no.	
	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>