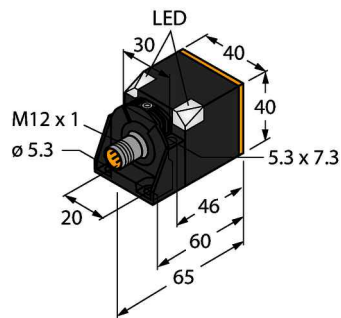


# NI50U-CK40-AP6X2-H1141

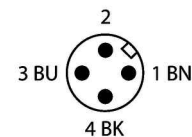
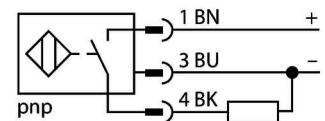
## Inductive sensor



### 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-attenuation
- Partially embeddable
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

### Wiring diagram



Inductive sensors detect metal objects contactless and wear-free. Due to the patented multi-coil 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.

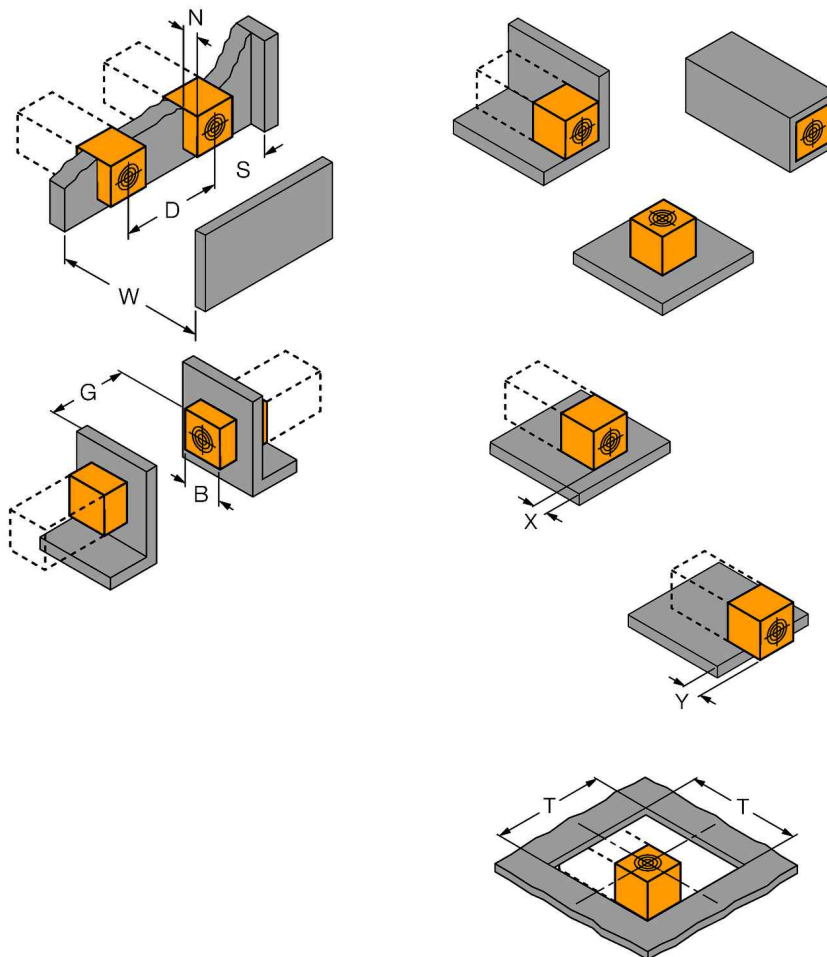
### Technical data

<b>Type</b>	NI50U-CK40-AP6X2-H1141
ID number	1625837
Rated switching distance	50 mm
Mounting conditions	Non-flush, flush
Secured operating distance	≤ (0,81 x S <sub>n</sub> ) mm
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ± 10 % ≤ ± 20 %, ≤ -25 °C v ≥ +70 °C
Hysteresis	3...15 %
Ambient temperature	-30...+85 °C
Operating voltage	10...30 VDC
Residual ripple	≤ 10 % U <sub>ss</sub>
DC rated operational current	≤ 200 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Protection class	☐
Switching frequency	0.25 kHz
<b>Design</b>	Rectangular, CK40
Dimensions	65 x 40 x 40 mm variable orientation of active face in 5 directions
Housing material	Plastic, PBT-GF20-V0, Black
Active area material	Plastic, PA12-GF30, yellow

## Technical data

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
<b>Power-on indication</b>	2 × LEDs green
Switching state	LED yellow
Included in delivery	Fixing clamp BS4-CK40

## 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

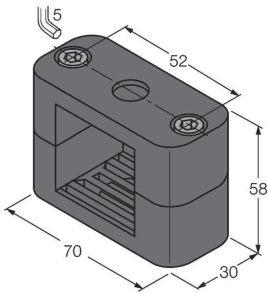
Metal-enclosed on three sides  $S_r = 12$  mm

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

## Mounting accessories

**BSS-CP40      6901318**

Mounting bracket for rectangular devices; material: Polypropylene



## Wiring accessories

**Type      ID number**

**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 [www.turck.com](http://www.turck.com)

