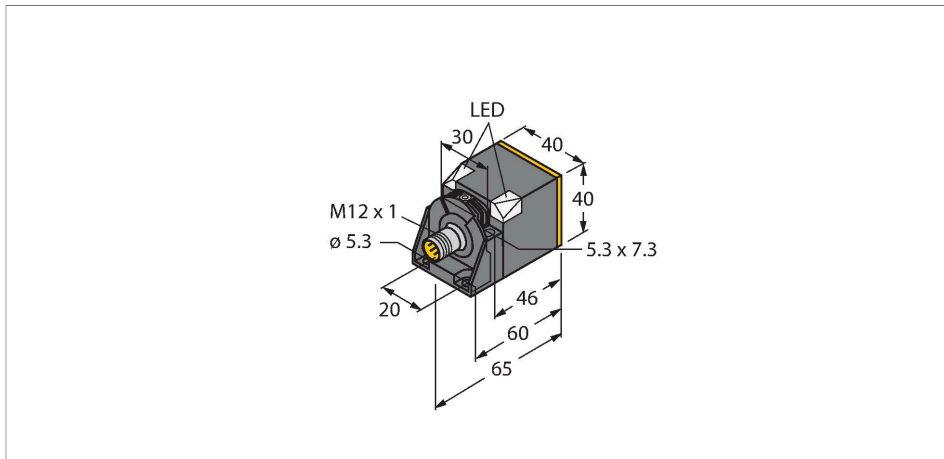


# NI40U-CK40-AP6X2-H1141

## Inductive Sensor – With Increased Switching Distance



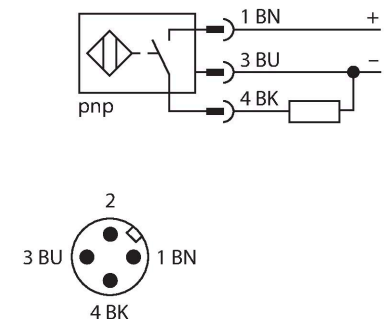
### Features

- 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
- Large coverage
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

### Technical data

Type	NI40U-CK40-AP6X2-H1141
Ident. no.	1623641
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	$\leq \pm 10\%$
	$\leq \pm 20\%$ , $\leq -25\text{ °C}$ v $\geq +70\text{ °C}$
Hysteresis	3...15 %
Ambient temperature	-30...+85 °C
Operating voltage	10...30 VDC
Residual ripple	$\leq 10\%$ $U_s$
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 $I_e$	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Insulation class	□
Switching frequency	0.25 kHz
Design	Rectangular, CK40
Dimensions	65 x 40 x 40 mm

### Wiring diagram



### Functional principle

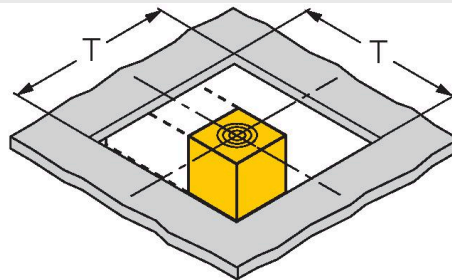
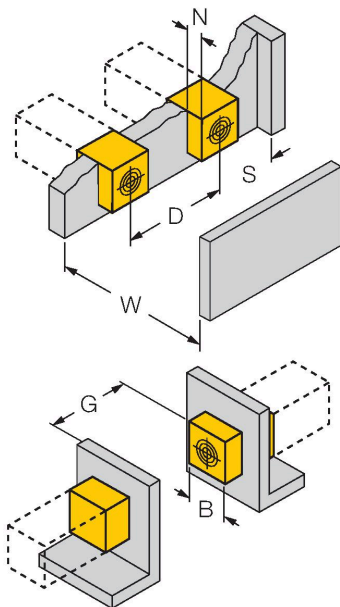
Inductive sensors detect metal objects contactless and wear-free. *uprox*® Factor 1 sensors have significant advantages due to their patented ferrite-coreless multicoil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.

## 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	120 mm
Distance S	60 mm
Distance G	240 mm
Distance N	40 mm
Width active area B	40 mm

#### Flush mounting

- 1-side mounting:  $S_r = 30$  mm;  $D = 240$  mm
- 2-side mounting:  $S_r = 24$  mm;  $D = 240$  mm
- 3-side mounting:  $S_r = 19$  mm;  $D = 80$  mm
- 4-side mounting:  $S_r = 12$  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:  $S_r = 30$  mm
- $y = 20$  mm:  $S_r = 40$  mm
- $y = 30$  mm:  $S_r = 40$  mm
- $y = 40$  mm:  $S_r = 40$  mm

#### Mounting in aperture plate:

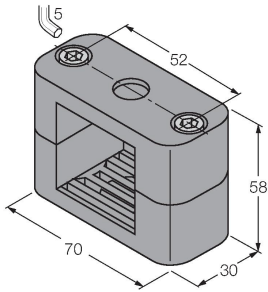
- $T = 140$  mm:
- Sensor with twisted turning angle
- On metal  $S_r = 40$  mm
- Metal-enclosed on one side  $S_r = 30$  mm
- Metal-enclosed on two sides  $S_r = 20$  mm
- Metal-enclosed on three sides  $S_r = 15$  mm

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

