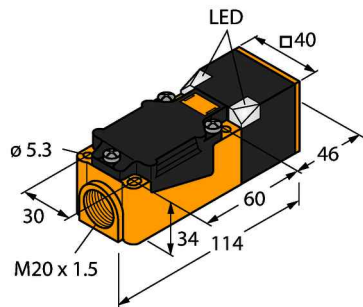


# NI50U-CP40-AP6X2 Inductive sensor



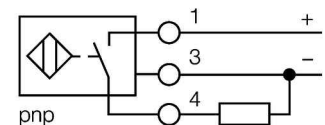
## Features

- Rectangular, height 40 mm
- Variable orientation of active face in 9 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
- Terminal chamber

## Technical data

<b>Type</b>	NI50U-CP40-AP6X2
ID number	1625831
Rated switching distance	50 mm
Mounting conditions	Non-flush, flush
Secured operating distance	$\leq (0,81 \times S_n) \text{ mm}$
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
	$\leq \pm 20 \%, \leq -25^\circ\text{C} \vee \geq +70^\circ\text{C}$
Hysteresis	3...15 %
Ambient temperature	-30...+85 °C
Operating voltage	10...30 VDC
Residual ripple	$\leq 10 \% U_{ss}$
DC rated operational current	$\leq 200 \text{ mA}$
No-load current	$\leq 15 \text{ mA}$
Residual current	$\leq 0.1 \text{ mA}$
Isolation test voltage	$\leq 0.5 \text{ kV}$
Short-circuit protection	yes / Cyclic
Voltage drop at	$\leq 1.8 \text{ V}$
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, CP40
Dimensions	114 x 40 x 40 mm
Housing material	Plastic, PBT-GF30-V0, Black
Active area material	Plastic, PA6-GF30-X, yellow
Electrical connection	Terminal chamber

## Wiring diagram

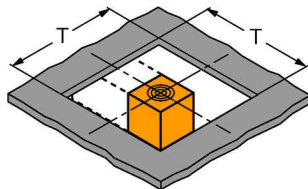
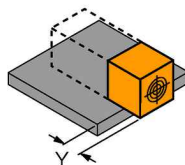
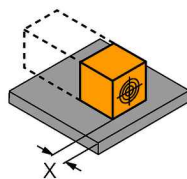
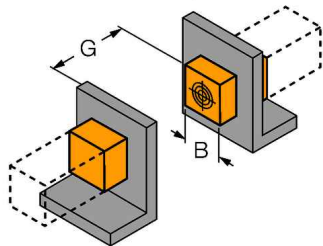
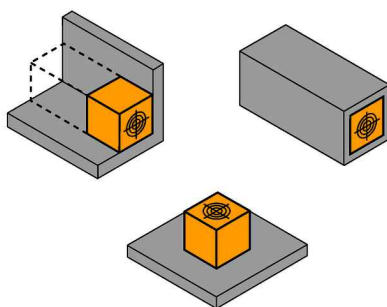
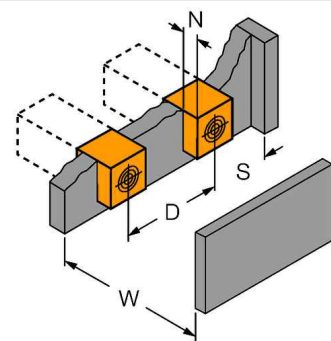


Inductive sensors detect metal objects contactless and wear-free. Due to the patented multi-coil system, *uprox*<sup>®</sup>+ sensors have distinct advantages over conventional sensors. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient standardization.

Technical data

Clamping ability	≤ 2.5 mm <sup>2</sup>
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	LED yellow

Mounting instructions/Description



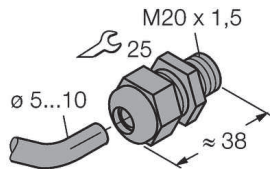
Distance D	240 mm
Distance W	105 mm
Distance S	60 mm
Distance G	300 mm
Distance N	30 mm
Width active area B	40 mm

Flush mounting  
1-side mounting: Sr = 35 mm; D = 240 mm  
2-side mounting: Sr = 25 mm; D = 240 mm  
3-side mounting: Sr = 20 mm; D = 80 mm  
4-side mounting: Sr = 17 mm; D = 60 mm  
Backside and recessed mounting with reduced switching distance  
Recessed mounting in metal:  
x = 10 mm: Sr = 20 mm  
x = 20 mm: Sr = 20 mm  
x = 30 mm: Sr = 20 mm  
x = 40 mm: Sr = 20 mm  
Protruded mounting:  
y = 10 mm: Sr = 40 mm  
y = 20 mm: Sr = 50 mm  
y = 30 mm: Sr = 50 mm  
y = 40 mm: Sr = 50 mm  
Mounting position in aperture plate:  
T = 150 mm  
Twisted mounting position  
On metal Sr = 50 mm  
Metal-enclosed on one side Sr = 25 mm  
Metal-enclosed on two sides Sr = 15 mm  
Metal-enclosed on three sides Sr = 12 mm  
The values stated relate to a 1 mm thick steel plate.

Mounting accessories

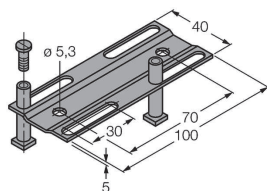
STRM M20X1.5 6965902  
SCHWARZ

Cable glands M20 x 1.5



JUSTIERSCHIENE JS 69429  
025/037

Adjusting bar for rectangular housings  
CK/CP40; material: VA 1.4301



**BSS-CP40****6901318**Mounting bracket for rectangular  
devices; material: Polypropylene