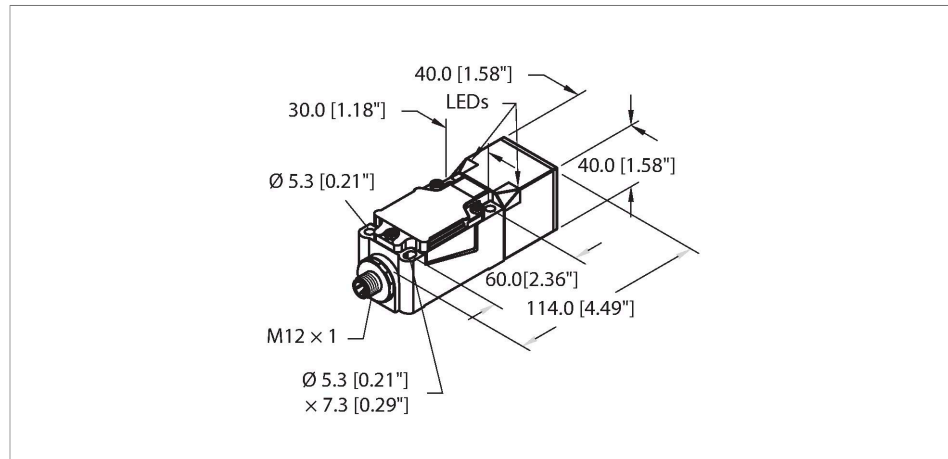


NI50U-CP40-AP6X2-H1141

Inductive Sensor



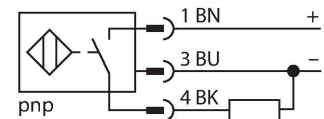
Features

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

Technical data

Type	NI50U-CP40-AP6X2-H1141
Ident. no.	1625835
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	$\leq \pm 10\%$ $\leq \pm 20\%, \leq -25\text{ °C} \vee \geq +70\text{ °C}$
Hysteresis	3...15 %
Ambient temperature	-30...+85 °C
Operating voltage	10...30 VDC
Residual ripple	$\leq 10\% U_s$
DC rated operational current	≤ 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 I_e	≤ 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, CP40
Dimensions	114 x 40 x 40 mm

Wiring diagram



Functional principle

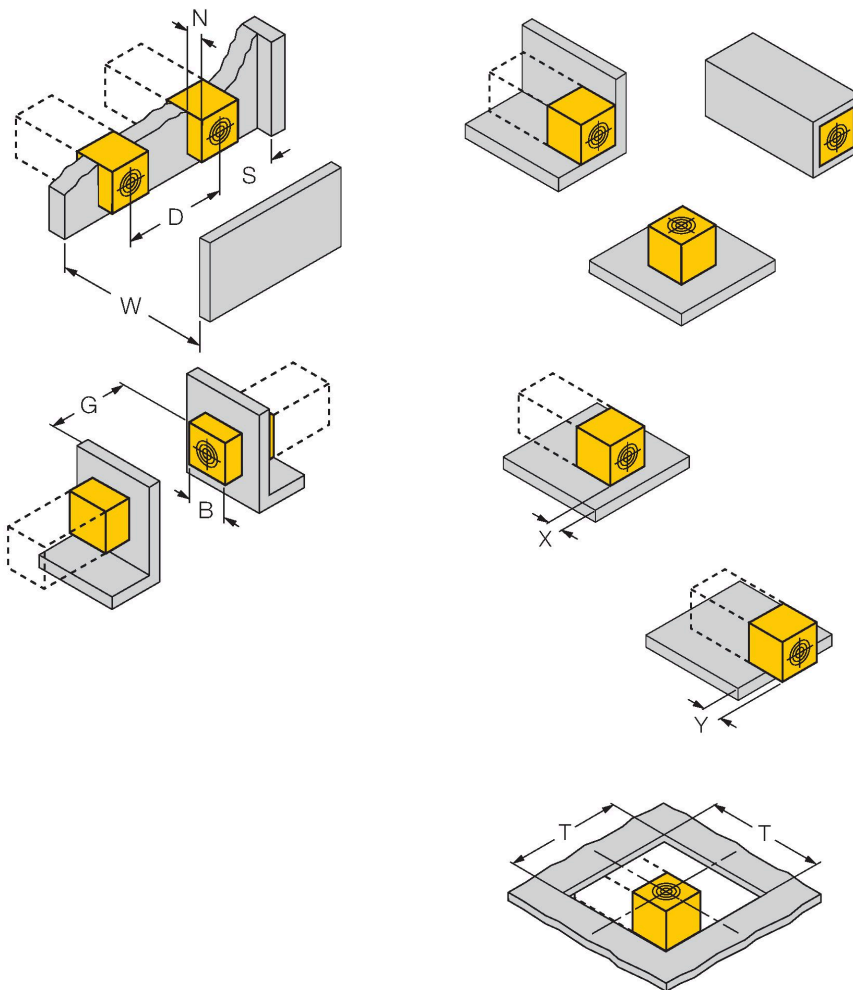
Inductive sensors detect metal objects contactless and wear-free. Due to the patented multi-coil system, *uprox*[®]+ sensors have distinct advantages over conventional sensors. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient standardization.

Technical data

Housing material	Plastic, PBT-GF30-V0, Black
Active area material	Plastic, PA6-GF30-X, 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

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: 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 as well as 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

Protuded 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 in aperture plate:

T = 150 mm:
 Sensor with twisted turning angle
 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

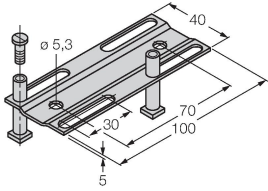
The values stated relate to a 1 mm thick steel plate.

Accessories

JS025/037

69429

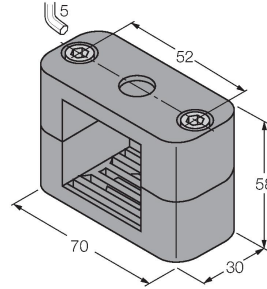
Adjusting bar for rectangular housings
CK/CP40; material: VA 1.4301



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

