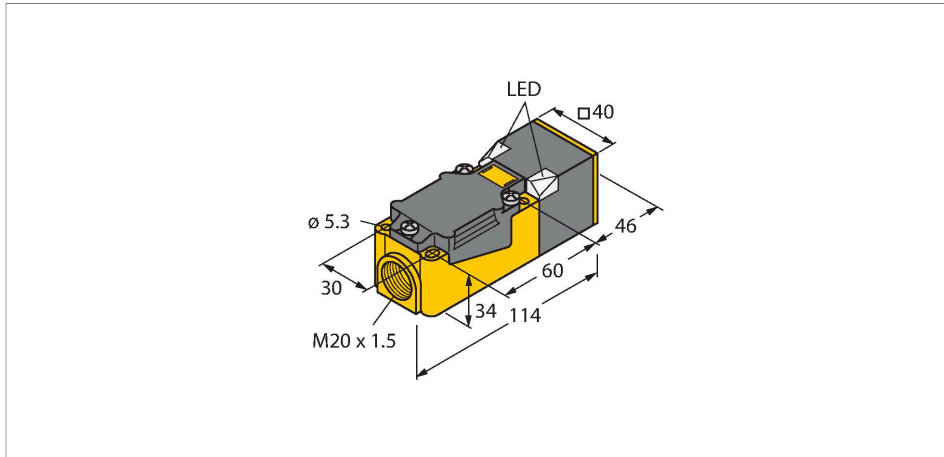


NI50U-CP40-VP4X2

Inductive sensor



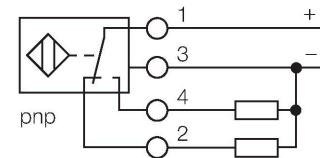
Features

- 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 4-wire, 10...65 VDC
- Changeover contact, PNP output
- Terminal chamber

Technical data

Type	NI50U-CP40-VP4X2
Ident. no.	1538303
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...65 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	4-wire, Complementary contact, PNP
Insulation class	□
Switching frequency	0.25 kHz
Design	Rectangular, CP40
Dimensions	114 x 40 x 40 mm

Wiring diagram



Functional principle

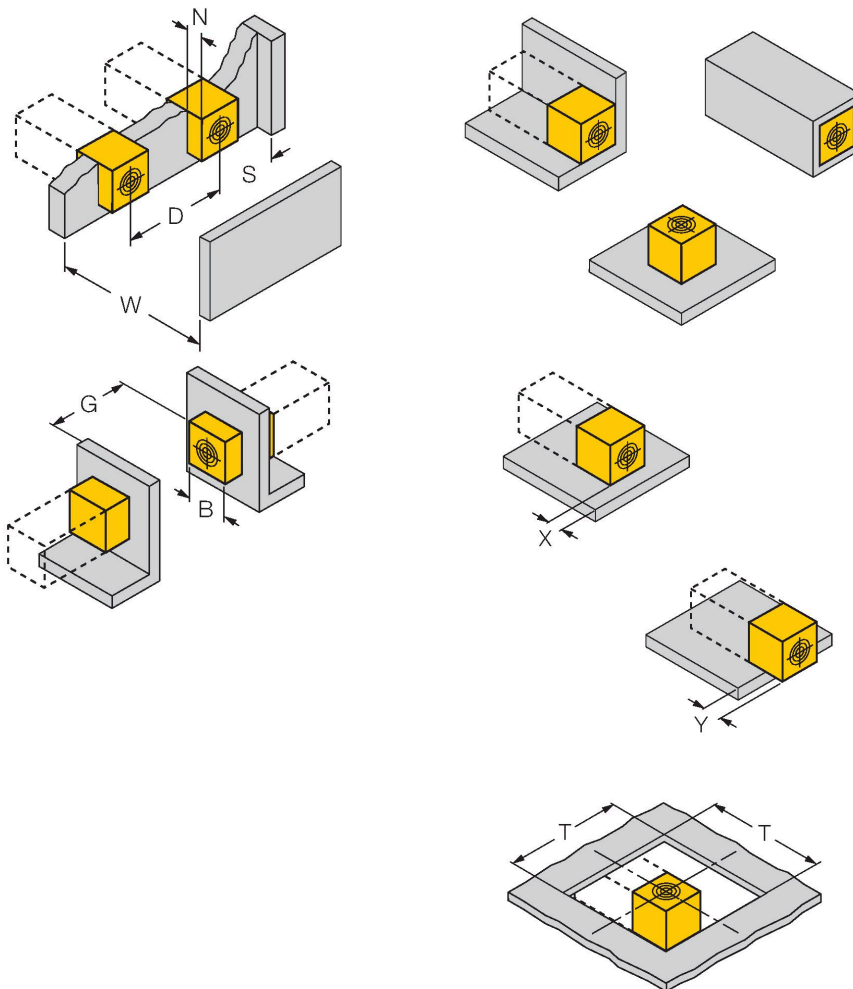
Inductive sensors detect metal objects contactless and wear-free. Due to the patented multi-coil system, *uprox*[®] sensors have distinct advantages over conventional sensors. They excel in largest switching distances, maximum flexibility and operational reliability as well as efficient standardization.

Technical data

Housing material	Plastic, PBT-GF30-V0, Black
Active area material	Plastic, PA6-GF30-X, yellow
Electrical connection	Terminal chamber
Clamping ability	≤ 2.5 mm ²
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



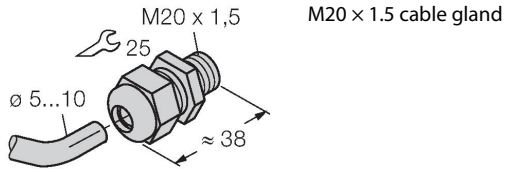
Distance D	240 mm
Distance W	105 mm
Distance S	60 mm
Distance G	300 mm
Distance N	30 mm
Width active area B	40 mm

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 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.

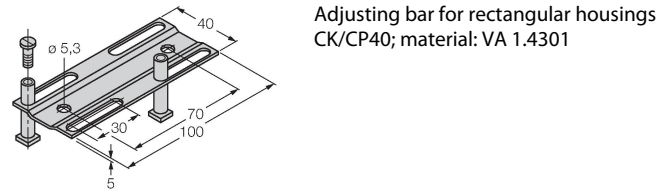
N150U-CP40-VP4X2 | 03/07/2020 07-34 | technical changes reserved

Accessories

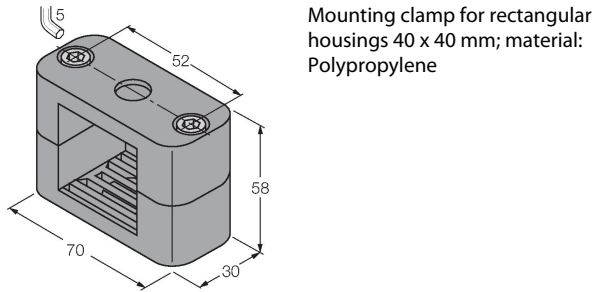
STRM M20X1.5 SCHWARZ **6965902**



JS025/037 **69429**



BSS-CP40 **6901318**





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