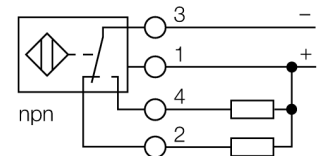


- Rectangular, height 40 mm
- Variable orientation of active face in 9 directions
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on supply voltage and switching state from any position
- Factor 1 for all metals
- Extended switching distance
- Protection class IP68
- Magnetic field immune
- Predamping protection through self-compensation
- Partial embedding
- DC 4-wire, 10...65 VDC
- Changeover contact, NPN output
- Terminal chamber

Wiring diagram



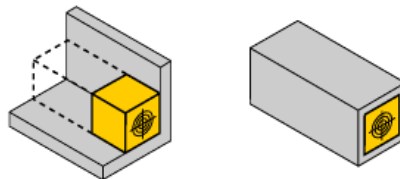
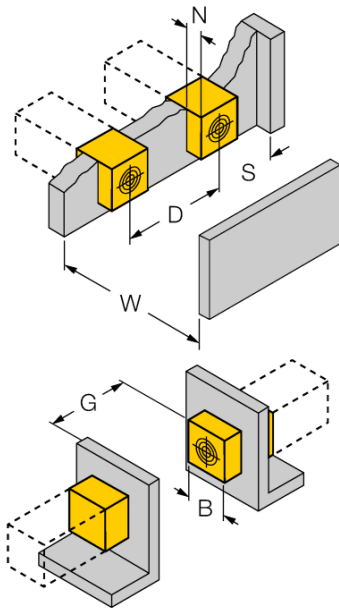
Functional principle

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

Type code	NI50U-CP40-VN4X2
Ident no.	1625847
Rated operating distance Sn	50 mm
Mounting condition	non-flush, flush mountable
Assured sensing range	≤ (0,81 x Sn) mm
Repeatability	≤ 2 % of full scale
Temperaturdrift	10 %
	≤ ± 20 %, ≤ -25 °C v ≥ +70 °C
Hysteresis	3...15 %
Ambient temperature	-30...+85 °C
Operating voltage	10...65VDC
Residual ripple	≤ 10 % U _{ss}
DC rated operational current	≤ 200 mA
No-load current I ₀	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation 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, changover contact, NPN
Protection class	☐
Switching frequency	0.25 kHz
Design	rectangular, CP40
Dimensions	114x 40x 40 mm
Housing material	Plastic, PBT, black
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
Operating voltage	2 x LEDs green
Switching state	●● yellow

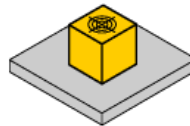
Distance D	240 mm
Distance W	105 mm
Distance S	60 mm
Distance G	300 mm
Distance N	30 mm

Width of the active face B 40 mm



Flush mounting

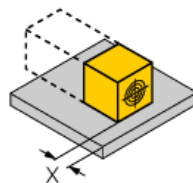
- 1-side mounting: $S_r = 35$ mm; $D = 240$ mm
- 2-side mounting: $S_r = 25$ mm; $D = 240$ mm
- 3-side mounting: $S_r = 20$ mm; $D = 80$ mm
- 4-side mounting: $S_r = 17$ mm; $D = 60$ mm



Backside and recessed mounting with reduced switching distance

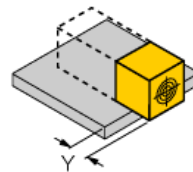
Recessed mounting in metal:

- $x = 10$ 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

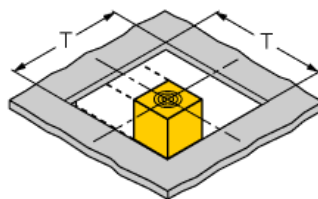


Mounting position in aperture plate:

$T = 150$ mm

Twisted mounting position

- 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.

Accessories

Type code	Ident no.	Description	Dimension drawing
STRM M20X1,5 BLACK	6965902	Cable glands M20 x 1.5	
Adjusting bar JS 025/037	69429	Adjusting bar for rectangular housings CK/CP40; material: VA 1.4301	
BSS-CP40	6901318	Mounting bracket for rectangular devices; material: Polypropylene	