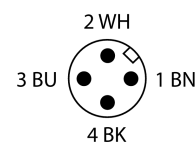
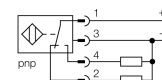


- Rectangular, height 40 mm
- Variable orientation of active face in 5 directions
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on supply voltage and switching state from any position
- Factor 1 for all metals
- Increased switching distance
- Protection class IP68
- Resistant to magnetic fields
- Auto-compensation protects against pre-attenuation
- Partially embeddable
- DC 4-wire, 10...65 VDC
- Changeover contact, PNP output
- M12 x 1 male connector

Wiring Diagram



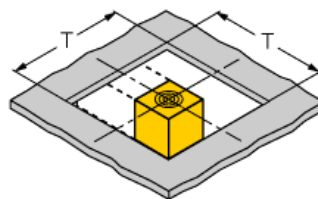
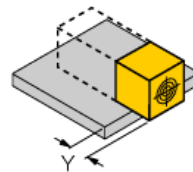
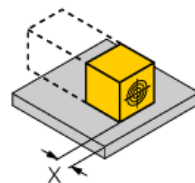
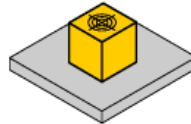
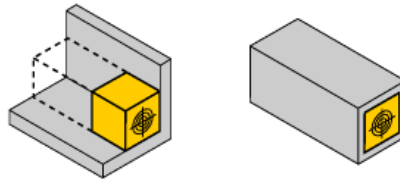
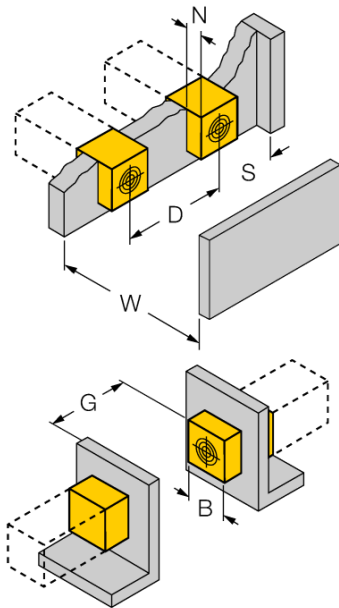
Functional principle

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.

Type code	NI50U-CK40-VP4X2-H1141
Ident no.	1538302
Rated switching distance S_n	50 mm
Mounting conditions	non-flush, flush
Assured switching distance	≤ (0,81 x S _n) mm
Repeatability	≤ 2 % of full scale
Temperature drift	≤ ± 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
Voltage drop at I ₀	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	4-wire, complementary, PNP
Protective insulation	□
Switching frequency	0.25 kHz
Construction	rectangular, CK40
Dimensions	65 x 40 x 40 mm
	variable orientation of active face in 5 directions
Housing material	plastic, PBT, black
Connection	flange connector, M12 x 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	LED yellow
Included in delivery	Fixing clamp BS4-CK40

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
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Flush mounting

- 1-side mounting: $S_r = 35 \text{ mm}$; $D = 240 \text{ mm}$
- 2-side mounting: $S_r = 25 \text{ mm}$; $D = 240 \text{ mm}$
- 3-side mounting: $S_r = 20 \text{ mm}$; $D = 80 \text{ mm}$
- 4-side mounting: $S_r = 15 \text{ mm}$; $D = 60 \text{ mm}$

Backside as well as recessed mounting with reduced switching distance

Recessed mounting in metal:

- $x = 10 \text{ mm}$: $S_r = 20 \text{ mm}$
- $x = 20 \text{ mm}$: $S_r = 20 \text{ mm}$
- $x = 30 \text{ mm}$: $S_r = 20 \text{ mm}$
- $x = 40 \text{ mm}$: $S_r = 20 \text{ mm}$

Protruded mounting:

- $y = 10 \text{ mm}$: $S_r = 40 \text{ mm}$
- $y = 20 \text{ mm}$: $S_r = 50 \text{ mm}$
- $y = 30 \text{ mm}$: $S_r = 50 \text{ mm}$
- $y = 40 \text{ mm}$: $S_r = 50 \text{ mm}$

Mounting in aperture plate:

$T = 150 \text{ mm}$:

Sensor with twisted turning angle

On metal $S_r = 50 \text{ mm}$

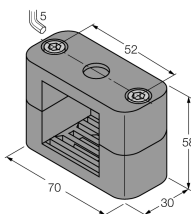
Metal-enclosed on one side $S_r = 25 \text{ mm}$

Metal-enclosed on two sides $S_r = 15 \text{ mm}$

Metal-enclosed on three sides $S_r = 12 \text{ mm}$

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

Accessories

Type code	Ident no.	Description	Design
BSS-CP40	6901318	Mounting bracket for rectangular devices; material: Polypropylene	

Wiring accessories

Type code	Ident no.	Description	Design
RKC4.4T-2/TEL	6625013	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com	