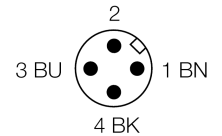
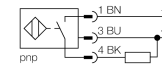


- Rectangular, height 40 mm
- Variable orientation of active face in 5 directions
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on supply voltage and switching state from any position
- Factor 1 for all metals
- Extended switching distance
- Protection class IP68
- Magnetic field immune
- Predamping protection through self-compensation
- Partial embedding
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 connector

Wiring diagram



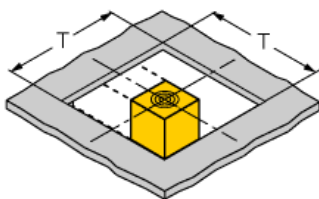
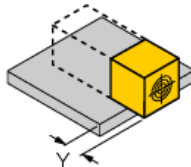
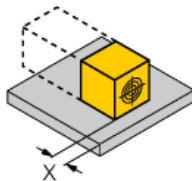
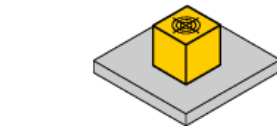
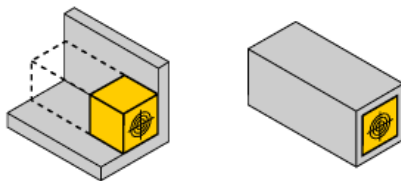
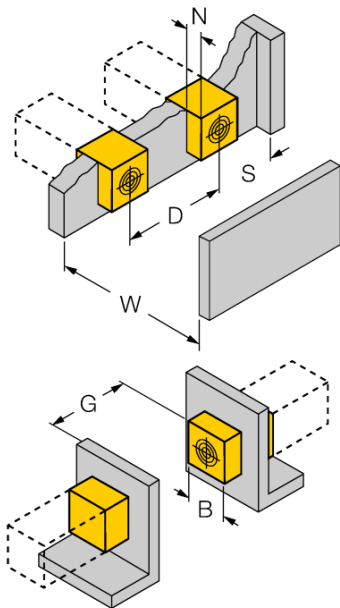
Functional principle

Inductive sensors detect metal objects contactless and wear-free. uprox®+ sensors have considerable advantages due to their patented multi-coil system. They excel in highest switching distances, maximum flexibility and operational reliability as well as efficient standardization.

Type	NI50U-CK40-AP6X2-H1141
Ident-No.	1625837
Rated operating distance Sn	50 mm
Mounting condition	non-flush, flush mountable
Assured sensing range	$\leq (0,81 \times S_n)$ mm
Repeatability	$\leq 2 \%$
Temperature drift	$\leq \pm 10 \%$
Hysteresis	$\leq \pm 20 \%$, $\leq -25 \text{ °C}$ v $\geq +70 \text{ °C}$
Ambient temperature	3...15 -30...+85
Operating voltage	10...30
Residual ripple	$\leq 10 \%$ U_{SS}
DC rated operational current	≤ 200 mA
No-load current I_0	≤ 15 mA
Residual current	$\leq 0,1$ mA
Rated insulation voltage	$\leq 0,5$ kV
Short-circuit protection	yes/ cyclic
Voltage drop at I_e	$\leq 1,8$ V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Protection class	□
Switching frequency	$\leq 0,25$ kHz
Design	rectangular, CK40
Dimensions	65 x 40 x 40 variable orientation of active face in 5 directions
Housing material	Plastic, PBT-GF20-V0, black
Connection	connector, M12 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
Operating voltage	2 x LEDs green
Switching state	2 x LEDs yellow
Included in scope of supply	BS4-CK40

Mounting instructions	minimum distances
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.	Short text	Dimension drawing
BSS-CP40	6901318	Fixing clamp; material: Polypropylene	