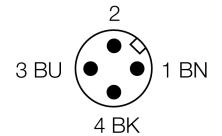
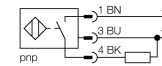


- Rectangular, height 40 mm
- Variable orientation of active face in 5 directions
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on supply voltage and switching state from any position
- Factor 1 for all metals
- Extended switching distance
- Protection class IP68
- Magnetic field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

#### Wiring diagram



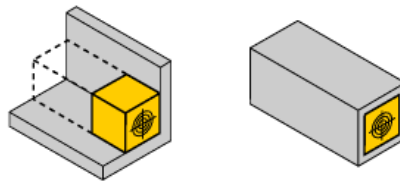
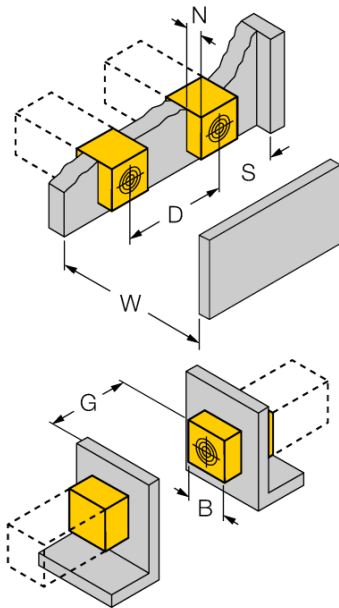
#### Functional principle

Inductive sensors detect metal objects contactless and wear-free. 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.

<b>Type code</b>	NI50U-CK40-AP6X2-H1141
Ident no.	1625837
<b>Rated operating distance Sn</b>	50 mm
Mounting condition	non-flush, flush mountable
Assured sensing range	≤ (0,81 x Sn) mm
Repeatability	≤ 2 % of full scale
Temperaturdrift	10 %
Hysteresis	≤ ± 20 %, ≤ -25 °C v ≥ +70 °C
Ambient temperature	3...15 % -30...+85 °C
<b>Operating voltage</b>	10...30VDC
Residual ripple	≤ 10 % U <sub>ss</sub>
DC rated operational current	≤ 200 mA
No-load current I <sub>0</sub>	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I <sub>0</sub>	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Protection class	☐
Switching frequency	0.25 kHz
<b>Design</b>	rectangular, CK40
Dimensions	65x 40x 40 mm variable orientation of active face in 5 directions
Housing material	Plastic, PBT, black
Connection	male, 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
<b>Operating voltage</b>	2 x LEDs green
Switching state	●● yellow
Included in scope of supply	Fixing clamp BS4-CK40

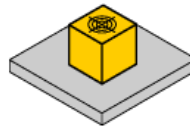
Distance D	240 mm
Distance W	105 mm
Distance S	60 mm
Distance G	300 mm
Distance N	30 mm

Width of the active face B 40 mm



**Flush mounting**

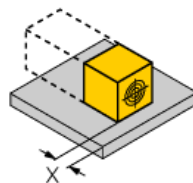
- 1-side mounting:  $S_r = 35\text{ mm}$ ;  $D = 240\text{ mm}$
- 2-side mounting:  $S_r = 25\text{ mm}$ ;  $D = 240\text{ mm}$
- 3-side mounting:  $S_r = 20\text{ mm}$ ;  $D = 80\text{ mm}$
- 4-side mounting:  $S_r = 15\text{ mm}$ ;  $D = 60\text{ mm}$



Backside as well as recessed mounting with reduced switching distance

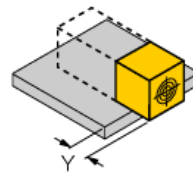
**Recessed mounting in metal:**

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



**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:**

$T = 150\text{ mm}$ :

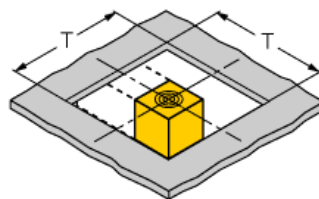
Sensor with twisted turning angle

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	Dimension drawing
BSS-CP40	6901318	Mounting bracket for rectangular devices; material: Polypropylene	

### Wiring accessories

Type code	Ident no.	Description	Dimension drawing
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 <a href="http://www.turck.com">www.turck.com</a>	