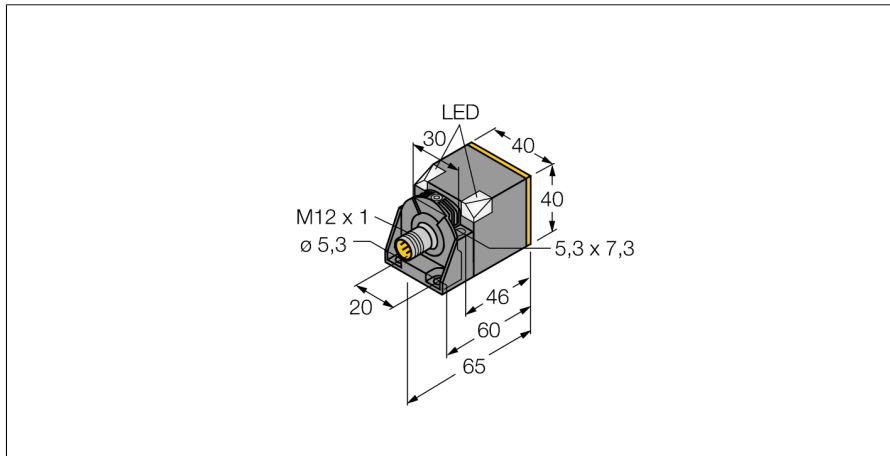
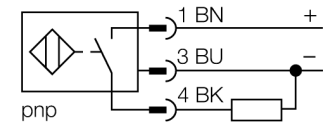


**Inductive sensor
with extended switching distance
NI40U-CK40-AP6X2-H1141**



- 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
- Large detection range
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- 3-wire DC, 10...30 VDC
- NO contact, PNP output
- Male M12 x 1

Wiring diagram



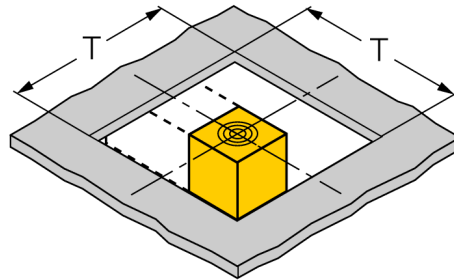
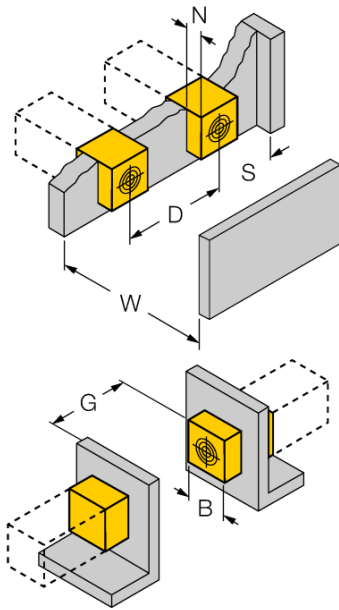
Functional principle

Inductive sensors detect metal objects contactless and wear-free. Due to the patented multicoil system, *uprox®*+ sensors have distinct advantages over conventional sensors. They detect all metals at the same large switching distance and are resistant to magnetic fields.

Type code	NI40U-CK40-AP6X2-H1141
Ident no.	1623641
Rated operating distance Sn	40 mm
Mounting condition	non-flush
Assured sensing range	≤ (0,81 x Sn) mm
Repeatability	≤ 2 % of full scale
Temperature drift	10 %
Hysteresis	≤ ± 20 %, ≤ -25 °C v ≥ +70 °C
Ambient temperature	3...15 % -30...+85 °C
Operating voltage	10...30VDC
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 ₀	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Protection class	☐
Switching frequency	0.25 kHz
Design	rectangular, CK40
Dimensions	65 x 40 x 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
Power-on indication	2 x LEDs green
Switching state	LED yellow
Included in scope of supply	Fixing clamp BS4-CK40

**Inductive sensor
with extended switching distance
NI40U-CK40-AP6X2-H1141**

Distance D	240 mm
Distance W	120 mm
Distance S	60 mm
Distance G	240 mm
Distance N	40 mm
<hr/>	
Width of the active face B	40 mm



Flush mounting

- 1-side mounting: Sr = 30 mm; D = 240 mm
- 2-side mounting: Sr = 24 mm; D = 240 mm
- 3-side mounting: Sr = 19 mm; D = 80 mm
- 4-side mounting: Sr = 12 mm; D = 60 mm

Backside as well as 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 = 30 mm
- y = 20 mm: Sr = 40 mm
- y = 30 mm: Sr = 40 mm
- y = 40 mm: Sr = 40 mm

Mounting in aperture plate:

T = 140 mm:

Sensor with twisted turning angle

- On metal Sr = 40 mm
- Metal-enclosed on one side Sr = 30mm
- Metal-enclosed on two sides Sr = 20mm
- Metal-enclosed on three sides Sr = 15 mm

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

**Inductive sensor
with extended switching distance
NI40U-CK40-AP6X2-H1141**

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 www.turck.com	