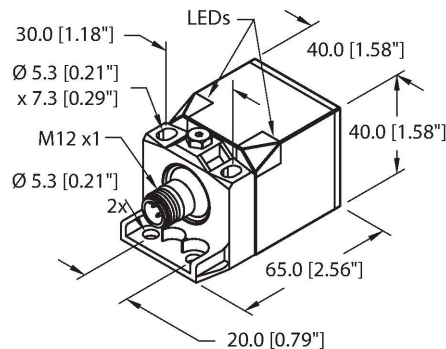


NI25U-CK40-AP6X2-H1141 W/BS2.1 Inductive Sensors



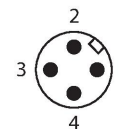
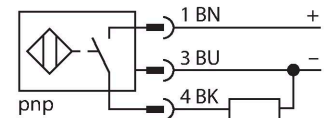
Features

- Rectangular, height 40 mm
- Variable orientation of active face in 5 directions
- Plastic, PBT-GF30-V0
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- Auto-compensation protects against pre-damping
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

Technical data

Type	NI25U-CK40-AP6X2-H1141 W/BS2.1
Ident. no.	1625790
Rated switching distance	25 mm
Mounting conditions	Non-flush, partially embeddable
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$
	$\leq \pm 20 \%, \leq -25 \text{ }^{\circ}\text{C} \vee \geq +70 \text{ }^{\circ}\text{C}$
Hysteresis	3...15 %
Ambient temperature	-30...+85 °C
Operating voltage	10...30 VDC
Residual ripple	$\leq 10 \%$ U_{ss}
DC rated operational current	≤ 200 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at I_o	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Insulation class	□
Switching frequency	0.25 kHz
Design	Rectangular, CK40
Dimensions	65 x 40 x 40 mm

Wiring diagram



Functional principle

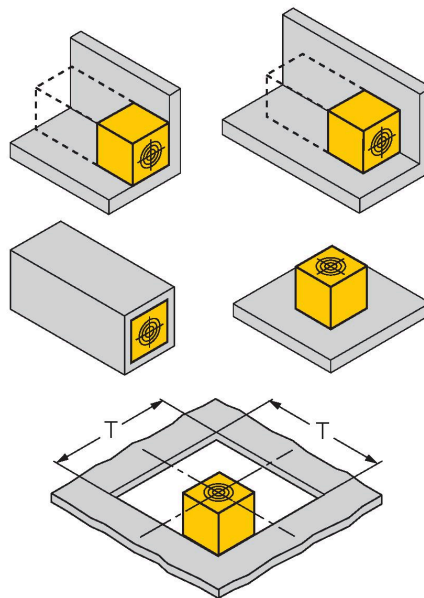
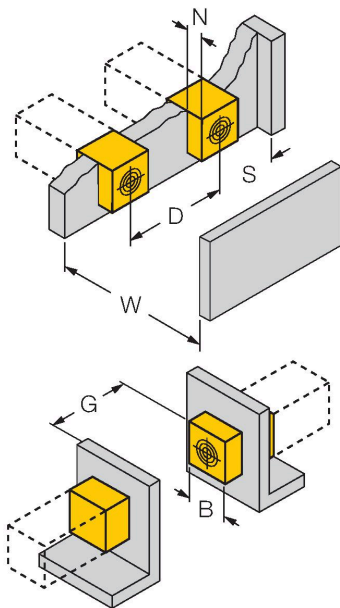
Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox Factor 1 sensors have significant advantages due to their patented ferrite-coreless multi-coil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.

Technical data

	variable orientation of active face in 5 directions
Housing material	Plastic, PBT-GF20-V0, Black
Active area material	Plastic, PA12-GF30, yellow
Electrical connection	Connector, M12 × 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	2 × LEDs, Yellow
Included in delivery	BS2.1-CK40

Mounting instructions

Mounting instructions/Description



Distance D 240 mm

Distance W 75 mm

Distance T 100 mm

Distance S 20 mm

Distance G 150 mm

Distance N 30 mm

Width active area B 40 mm

up to 4-side flush mounting possible

1-side flush mounting: $S_r = 22 \text{ mm}$

2-side flush mounting: $S_r = 20 \text{ mm}$

3-side flush mounting: $S_r = 17 \text{ mm}$

4-side flush mounting: $S_r = 13 \text{ mm}$

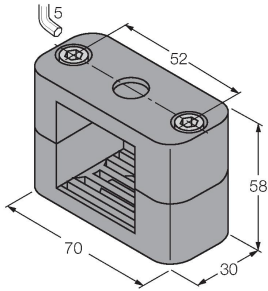
back-mounting without reduction of the switching distance

recessed mounting with switching distance reduction possible

Accessories

BSS-CP40

6901318



Mounting clamp for rectangular housings 40 x 40 mm; material: Polypropylene