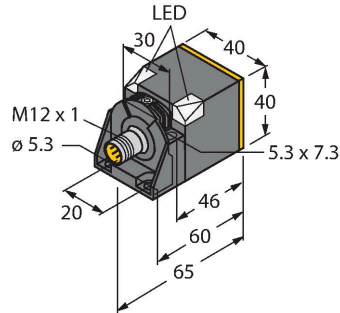


NI25U-CK40-AP6X2-H1141

Inductive Sensor



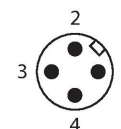
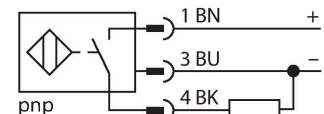
Technical data

Type	NI25U-CK40-AP6X2-H1141
ID	1625700
General data	
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 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{ss}	$\leq 10 \%$ U_{Bmax}
DC rated operating current I_o	≤ 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 break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, PNP
DC field stability	300 mT
AC field stability	300 mT _{ss}
Insulation class	□

Features

- 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
- 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

Wiring diagram



Technical data

Switching frequency	0.25 kHz
Mechanical data	
Design	Rectangular, CK40
Dimensions	65 x 40 x 40 mm
	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 x 1
Environmental conditions	
Ambient temperature	-30...+85 °C
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	2 x LEDs, Yellow
Included in delivery	Fixing clamp BS4-CK40

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.

Mounting instructions

Mounting instructions/Description

Distance D	120 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: $S_r = 22$ mm

2-side flush mounting: $S_r = 20$ mm

3-side flush mounting: $S_r = 17$ mm

4-side flush mounting: $S_r = 13$ mm

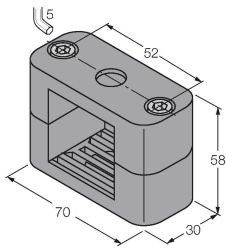
back-mounting without reduction of the switching distance

recessed mounting with switching distance reduction possible

K40-AP6X2-H1141| 02/21/2025 14:28 | technical changes reserved

Accessories

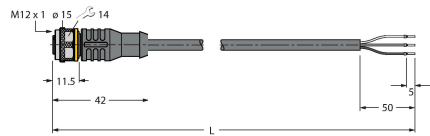
BSS-CP40 6901318



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

Wiring accessories

Dimension drawing	Type	ID	
	RKC4T-2/TEL	6625010	



Connection cable, M12 female connector, straight, 3-pin, cable length: 2 m, jacket material: PVC, black; cULus approval