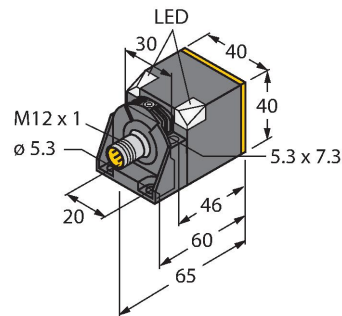


NI40U-CK40-AP6X2-H1141

Inductive Sensor – With Extended Switching Distance



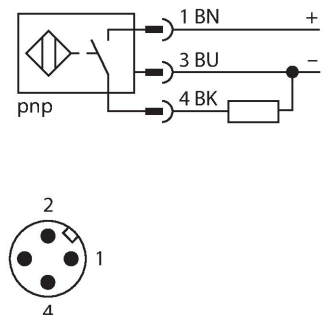
Technical data

Type	NI40U-CK40-AP6X2-H1141
ID	1623641
General data	
Rated switching distance	40 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$ $\leq \pm 20 \%, -25^\circ\text{C} \leq +70^\circ\text{C}$
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	□
Switching frequency	0.25 kHz
Mechanical data	
Design	Rectangular, CK40

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
- Increased switching distance
- Protection class IP68
- Large coverage
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

Wiring diagram



Functional principle

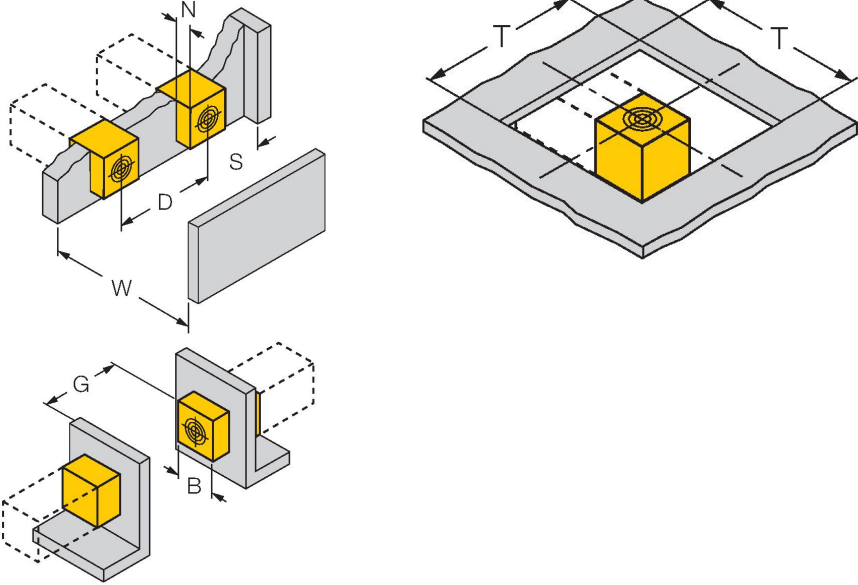
Inductive sensors are designed for wear-free and contactless detection of metal objects. Iprox Factor 1 sensors have significant advantages due to their patented ferrite-coreless multi-coil system. They detect all

Technical data

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

metals at the same large switching distance and are resistant to magnetic fields.

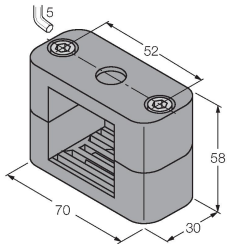
Mounting instructions

Mounting instructions/Description													
	<table><tr><td>Distance D</td><td>240 mm</td></tr><tr><td>Distance W</td><td>120 mm</td></tr><tr><td>Distance S</td><td>60 mm</td></tr><tr><td>Distance G</td><td>240 mm</td></tr><tr><td>Distance N</td><td>40 mm</td></tr><tr><td>Width active area B</td><td>40 mm</td></tr></table>	Distance D	240 mm	Distance W	120 mm	Distance S	60 mm	Distance G	240 mm	Distance N	40 mm	Width active area B	40 mm
Distance D	240 mm												
Distance W	120 mm												
Distance S	60 mm												
Distance G	240 mm												
Distance N	40 mm												
Width active area 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.

Accessories

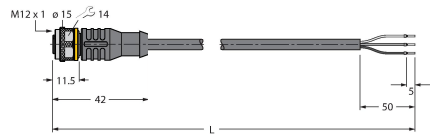
BSS-CP40	6901318
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Mounting clamp for rectangular housings 40 x 40 mm; material: Polypropylene

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