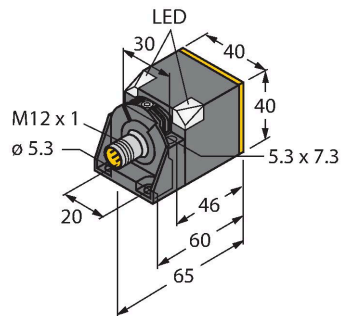


NI35U-CK40-AP6X2-H1141

Inductive Sensor – With Increased Switching Distance



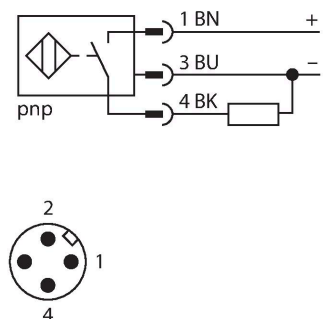
Technical data

Type	NI35U-CK40-AP6X2-H1141
ID	1625800
General data	
Rated switching distance	35 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	$\leq \pm 10\%$ $\leq \pm 20\%$, $-25\text{ °C} \leq v \leq +70\text{ °C}$
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
- 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



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. Approx Factor 1 sensors have significant advantages due to their patented ferrite-

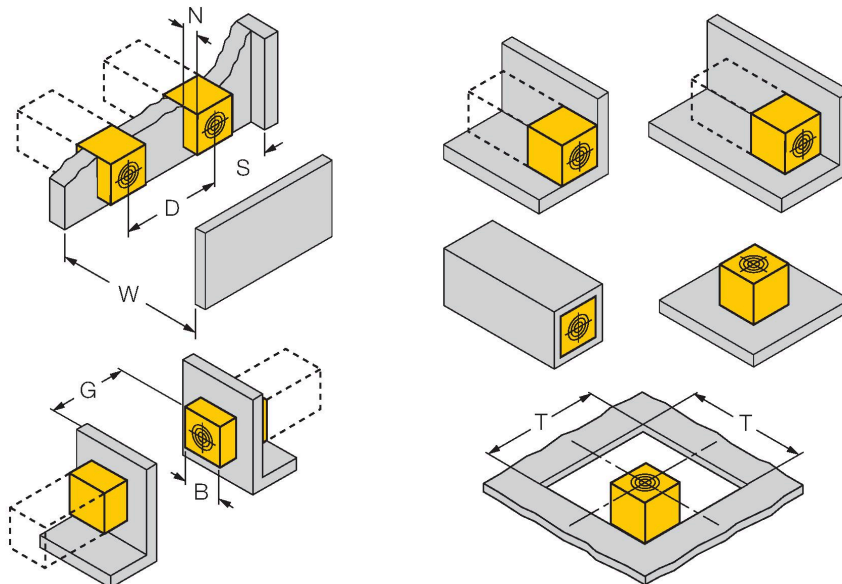
Technical data

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 × 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 × LEDs, Green
Switching state	2 × LEDs, Yellow
Included in delivery	Fixing clamp BS4-CK40

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	105 mm
Distance T	140 mm
Distance S	60 mm
Distance G	210 mm
Distance N	30 mm
Width active area B	40 mm

Flush mounting

- 1-side mounting: $S_r = 28$ mm
- 2-side mounting: $S_r = 24$ mm
- 3-side mounting: $S_r = 19$ mm

Backside mounting with full switching distance.

Recessed mounting with reduced switching distance.

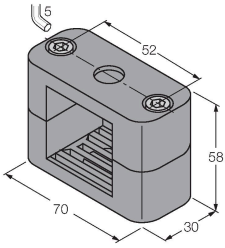
The values stated relate to a 1 mm thick steel plate.

Accessories

BSS-CP40

6901318

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

