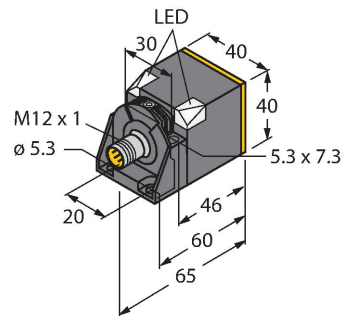


NI25U-CK40-VP4X2-H1141

Inductive Sensor



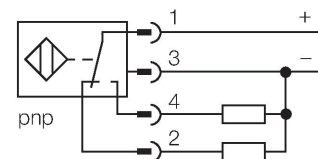
Technical data

Type	NI25U-CK40-VP4X2-H1141
ID	1568803
General data	
Rated switching distance	25 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
Temperature drift	$\leq \pm 10 \%$ $\leq \pm 15 \%, -25^\circ\text{C} \leq +70^\circ\text{C}$
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...65 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	4-wire, Complementary 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
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- DC 4-wire, 10...65 VDC
- Changeover contact, PNP output
- M12 x 1 male connector

Wiring diagram



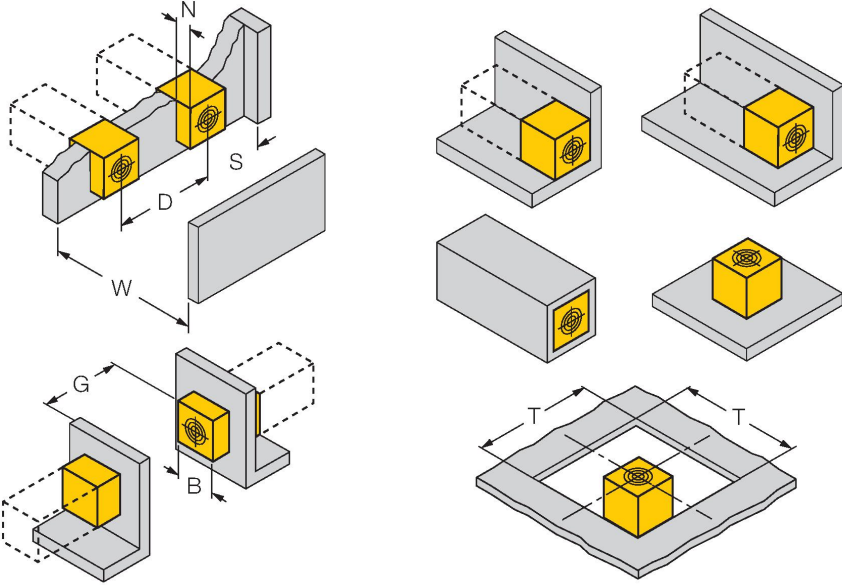
Functional principle

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-coreless multi-coil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.

Technical data

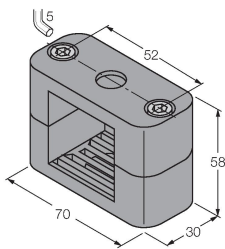
Dimensions	65 x 40 x 40 mm
	variable orientation of active face in 5 directions
Housing material	Plastic, PBT-GF20-V0, Black
Active area material	Plastic, PA12-GF30, yellow
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-30...+85 °C
Vibration resistance	55 Hz (1 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

Mounting instructions

Mounting instructions/Description	
	Distance D120 mm
	Distance W75 mm
	Distance T140 mm
	Distance S20 mm
	Distance G150 mm
	Distance N30 mm
	Width active area40 mm
	B
Flush mounting	
1-side mounting: Sr = 22 mm	
2-side mounting: Sr = 20 mm	
3-side mounting: Sr = 17 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
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Mounting clamp for rectangular housings 40 x 40 mm; material: Polypropylene

Accessories

Dimension drawing	Type	ID	
	RKC4.4T-2/TEL	6625013	



Connection cable, M12 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval