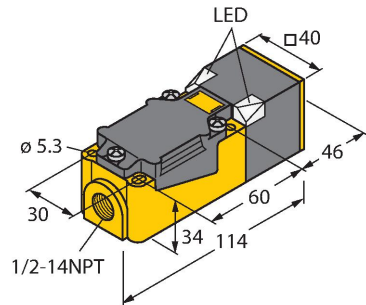


NI20NF-CP40-VN4X2/S10

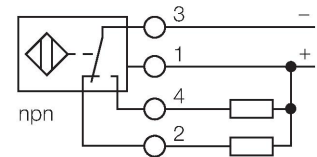
Inductive Sensor – With Selective Behaviour



Features

- Rectangular, height 40 mm
- Variable orientation of active face in 9 directions
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on supply voltage and switching state from any position
- Detects only non-ferromagnetic metal
- DC 4-wire, 10...65 VDC
- Changeover contact, NPN output
- Terminal chamber

Wiring diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors of the NF series with selective performance detect non-ferrous metals only.

Technical data

Type	NI20NF-CP40-VN4X2/S10
ID	15282
Special version	S10 Corresponds to: Mounting base with 1/2-14NPT thread
General data	
Rated switching distance	20 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeat accuracy	$\leq 2 \%$ of full scale
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, NPN
Insulation class	□
Switching frequency	0.1 kHz

Technical data

Mechanical data	
Design	Rectangular, CP40
Dimensions	114 x 40 x 40 mm
Housing material	Plastic, PBT-GF30-V0, Black
Active area material	Plastic, PBT-GF30-V0, yellow
Electrical connection	Terminal chamber
Clamping ability	≤ 2.5 mm²
Environmental conditions	
Ambient temperature	0...+60 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	392 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	2 × LEDs, Green
Switching state	2 × LEDs, Yellow

Mounting instructions

Mounting instructions/Description

The image contains two technical diagrams illustrating the mounting of the NI20NF-CP40 sensor. The top diagram shows a side view of two sensors mounted on a wall. Dimensions labeled include: N (height of the mounting bracket), S (height of the sensor block), D (distance between the sensors), and W (width of the sensor block). The bottom diagram shows a front view of a sensor mounted in a bracket. Dimensions labeled include: G (height of the mounting bracket) and B (width of the active area). Both diagrams use dashed lines to indicate the internal structure and mounting points of the sensors.

Distance D	$3 \times B$
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Distance W	$3 \times S_n$
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Distance S	$1.5 \times B$
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Distance G	$6 \times S_n$
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Distance N	$1 \times B$
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Width active area B	40 mm
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flush mounting in St37 admissible

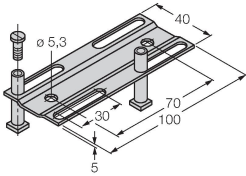
NI20NF-CP40-VN4X2/S10| 02/21/2025 13-35 | technical changes reserved

Accessories

JS025/037

69429

Adjusting bar for rectangular housings
CK/CP40; material: VA 1.4301



BSS-CP40

6901318

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

