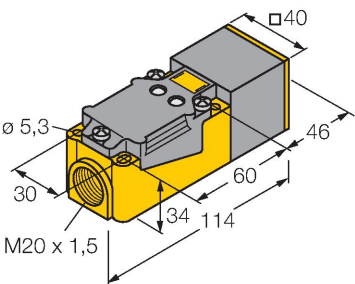


NI20NF-CP40-VP4X2

Inductive Sensor – With Selective Behaviour



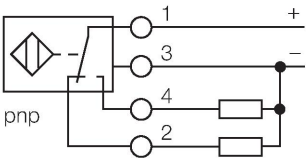
Technical data

Type	NI20NF-CP40-VP4X2
ID	15684
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
Temperature drift	$\leq \pm 10 \%$
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
Insulation class	□
Switching frequency	0.1 kHz
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

Features

- Rectangular, height 40 mm
- Variable orientation of active face in 9 directions
- Plastic, PBT-GF30-V0
- Detects only non-ferromagnetic metal
- DC 4-wire, 10...65 VDC
- Changeover contact, PNP 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

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	LED, Green
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description

The diagram illustrates the mounting of a rectangular housing onto a base. The housing is shown in two positions: one where it is being lowered into a slot and another where it is fully seated. The dimensions are defined as follows:

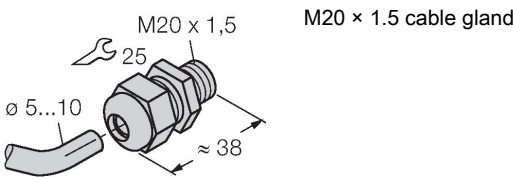
- D**: The distance between the centers of the two mounting holes on the housing.
- W**: The width of the housing.
- S**: The height of the housing.
- N**: The height of the mounting bracket or support structure.
- G**: The height of the mounting bracket or support structure.
- B**: The width of the mounting bracket or support structure.

Distance D	3 x B
Distance W	3 x Sn
Distance S	1.5 x B
Distance G	6 x Sn
Distance N	1 x B
Width active area B	40 mm

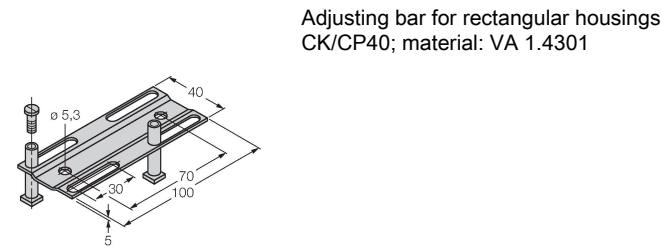
flush mounting in St37 admissible

Accessories

STRM M20X1.5 SCHWARZ	6965902
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JS025/037	69429
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BSS-CP40
6901318

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

