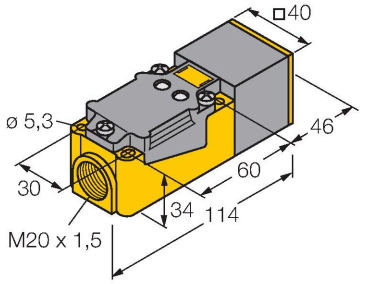
NI20NF-CP40-FZ3X2
Inductive Sensor – With Selective Behaviour



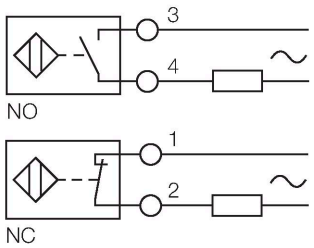
Technical data

Type	NI20NF-CP40-FZ3X2
Ident. no.	13284
Rated switching distance	20 mm
Mounting conditions	Non-flush
Secured operating distance	≤ (0.81 × Sn) mm
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ± 10 %
Hysteresis	3…15 %
Ambient temperature	0…+60 °C
Operating voltage	20…250 VAC
Frequency	≥ 50…≤ 60 Hz
Residual current	≤ 1.7 mA
Isolation test voltage	≤ 1.5 kV
Surge current	≤ 8 A (≤ 10 ms max. 5 Hz)
Voltage drop at I_e	≤ 6 V
Output function	2-wire, Connection programmable
Smallest operating current	≥ 3 mA
Insulation class	⧈
Switching frequency	0.02 kHz
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

Features

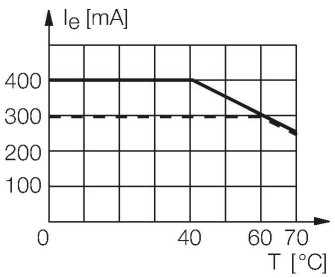
- Rectangular, height 40 mm
- Variable orientation of active face in 9 directions
- Plastic, PBT-GF30-V0
- Detects only non-ferromagnetic metal
- AC 2-wire, 20…250 VAC
- NC/NO programmable
- Terminal chamber

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.



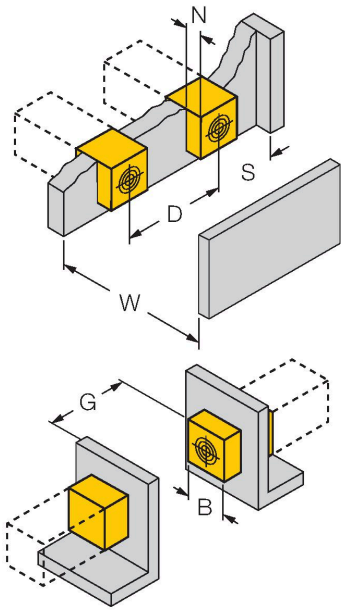
NI20NF-CP40-FZ3X2| 09/09/2020 14-40 | technical changes reserved

Technical data

Clamping ability	≤ 2.5 mm²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	348 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED, Green
Switching state	LED, Red

Mounting instructions

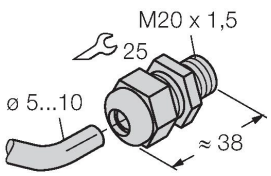
Mounting instructions/Description



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

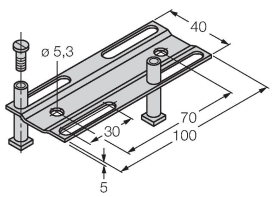
Accessories

STRM M20X1.5 SCHWARZ	6965902



M20 × 1.5 cable gland

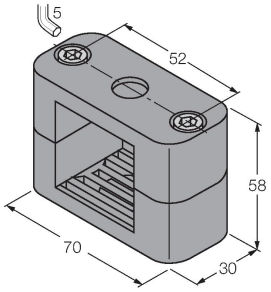
Adjusting bar JS 025/037	69429



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

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BSS-CP40	6901318



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

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