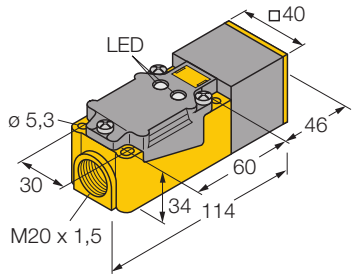
Inductive sensor
with selective performance
Ni20NF-CP40-FZ3X2

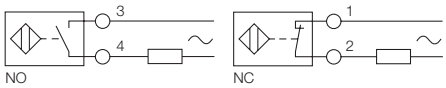
TURCK
Industrial Automation



- **rectangular, height 40 mm**
- **variable orientation of active face in 9 directions**
- **Plastic, PBT-GF30-V0**
- **detects non-ferromagnetic metals only**
- **AC 2-wire, 20…250 VAC**
- **connection programmable (n.c./ n.o.)**
- **Terminal chamber**

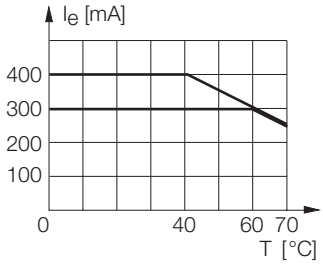
Type	Ni20NF-CP40-FZ3X2
Ident-No.	13284
Rated operating distance Sn	20 mm
Mounting condition	non-flush
Assured sensing range	(0,81 x Sn) mm
Repeatability	2 %
Temperature drift	± 10 %
Hysteresis	3… 15 %
Ambient temperature	0…+ 60 °C
Operating voltage	20… 250VAC
AC rated operational current	400 mA
Frequency	50… 60 Hz
Residual current	1.7 mA
Rated insulation voltage	1.5 kV
Surge current	8 A (10 ms max. 5 Hz)
Voltage drop at I_e	6V
Output function	2-wire, connection programmable
Smallest operating current I_m	≥ 3 mA
Insulation class	
Switching frequency	0.02 kHz
Housing	rectangular, CP40
Dimensions	114 x 40 x 40 mm variable orientation of active face in 9 directions
Housing material	plastic, PBT-GF30-V0, black
Material active face	plastic, PBT-GF30-V0, yellow
Connection	Terminal chamber
Clamping ability	2.5mm^2
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Degree of protection	IP67
Operating voltage display	LED green
Display switch state	LED red

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and non-contact detection of metal objects. For this purpose they use a high-frequency electro-magnetic AC field that interacts with the target.
Inductive sensors with selective performance of the NF series detect non-ferrous metals only.

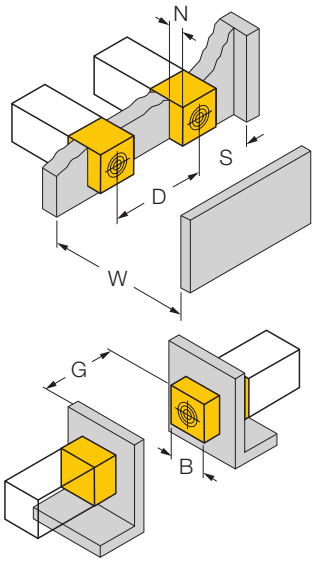


• Edition: • 08.11.2008

Inductive sensor
with selective performance
Ni20NF-CP40-FZ3X2

Mounting instructions	minimum distances
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 of the active face B	40 mm

flush mounting in St37 admissible

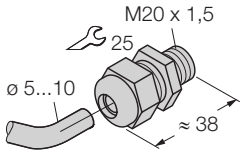
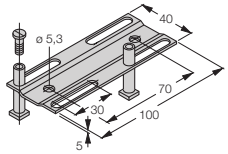
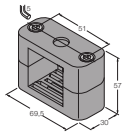


• Edition: • 08.11.2008

Inductive sensor
with selective performance
Ni20NF-CP40-FZ3X2

Industrial Automation

Accessories

Type code	Ident-No.	Short text	Dimension drawing
STRM M20X1,5 SCHWARZ	6965902	cable glands M20 x 1,5	
JS 025/037	69429	mounting rail; material: VA 1.4301	
BSS-CP40	6901318	fixing clamp; material: polypropylene	

• Edition: • 08.11.2008