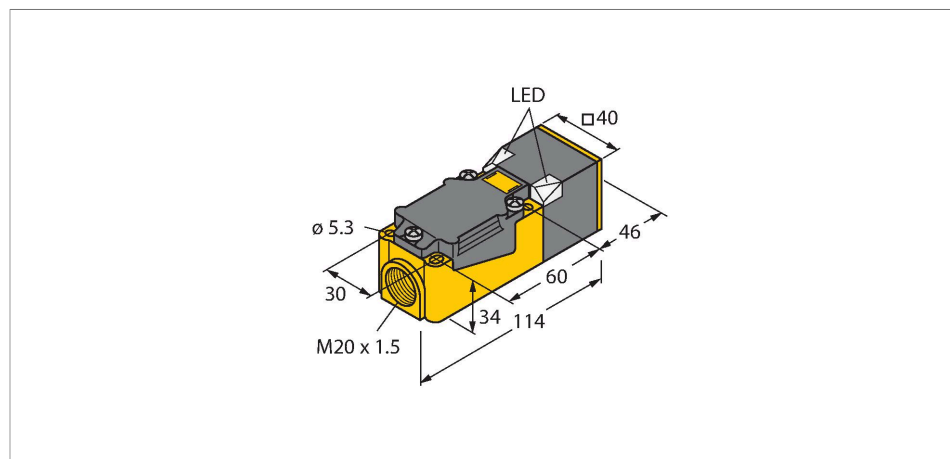


# NI20-CP40-FZ3X2

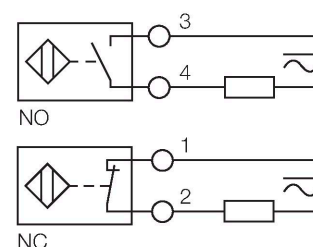
## Inductive sensor



### 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
- AC 2-wire, 20...250 VDC
- DC 2-wire, 10...300 VDC
- NC/NO programmable
- Terminal chamber

### Wiring diagram

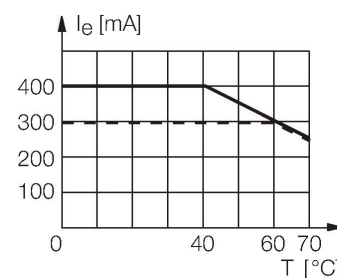


### Technical data

Type	NI20-CP40-FZ3X2
Ident. no.	13401
Rated switching distance	20 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	20...250 VAC
Operating voltage	10...300 VDC
DC rated operational current	$\leq 300$ mA
Frequency	$\geq 50 \dots \leq 60$ Hz
Residual current	$\leq 1.7$ mA
Isolation test voltage	$\leq 1.5$ kV
Surge current	$\leq 8$ A ( $\leq 10$ ms max. 5 Hz)
Voltage drop at $I_e$	$\leq 6$ V
Output function	2-wire, Connection programmable
Smallest operating current	$\geq 3$ mA
Switching frequency	0.02 kHz
Design	Rectangular, CP40
Dimensions	114 x 40 x 40 mm
Housing material	Plastic, PBT-GF30-V0, Black

### Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.




## Technical data

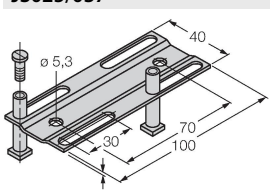
Active area material	Plastic, PBT-GF30-V0, yellow
Electrical connection	Terminal chamber
Clamping ability	$\leq 2.5 \text{ mm}^2$
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	2 × LEDs, Green
Switching state	2 × LEDs, Red

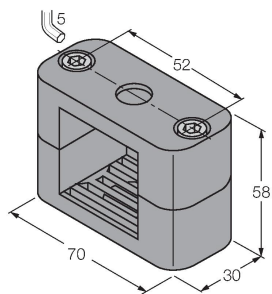
## Mounting instructions

Mounting instructions/Description		
	Distance D	$3 \times B$
	Distance W	$3 \times S_n$
	Distance S	$1.5 \times B$
	Distance G	$6 \times S_n$
	Distance N	$0.5 \times B$
	Width active area B	40 mm

## Accessories

<b>STRM M20X1.5 SCHWARZ</b>	<b>6965902</b>
	M20 × 1.5 cable gland

<b>JS025/037</b>	<b>69429</b>
	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



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