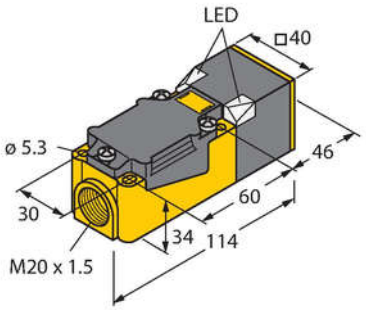
NI40U-CP40-FDZ30X2
Inductive Sensor – With Extended Switching Distance



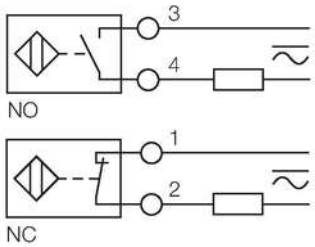
Technical data

Type	NI40U-CP40-FDZ30X2
ID	4280800
General data	
Rated switching distance	40 mm
Mounting conditions	Non-flush
Secured operating distance	≤ (0.81 × Sn) mm
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ±10 %
	≤ ± 20 %, ≤ -25 °C v ≥ +70 °C
Hysteresis	3…15 %
Electrical data	
Operating voltage	20…250 VAC
Operating voltage	10…300 VDC
AC rated operational current	≤ 400 mA
DC rated operational current	≤ 300 mA
Frequency	≥ 50…≤ 60 Hz
Residual current	≤ 1.7 mA
Isolation test voltage	≤ 1.5 kV
Surge current	≤ 3 A (≤ 20 ms max. 5 Hz)
Short-circuit protection	yes / Latching
Voltage drop at I_e	≤ 6 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	2-wire, Connection programmable, 2-wire
DC field stability	300 mT
AC field stability	300 mT_{ss}
Smallest operating current	≥ 3 mA

Features

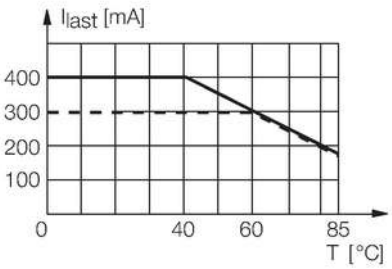
- Rectangular, height 40 mm
- Variable orientation of active face in 9 directions
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on supply voltage and switching state from any position
- Factor 1 for all metals
- Increased switching distance
- Protection class IP68
- Large coverage
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- AC 2-wire, 20…250 VAC
- DC 2-wire, 10…300 VDC
- NC/NO programmable
- Terminal chamber

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox Factor 1 sensors have significant advantages due to their patented ferrite-coreless multi-coil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.



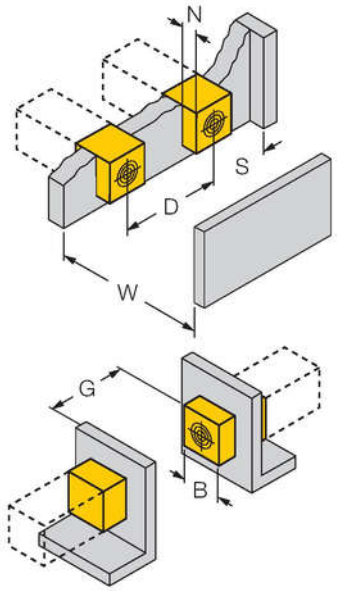
NI40U-CP40-FDZ30X2| 01-12-2022 09-34 | Technical modifications reserved

Technical data

Insulation class	⧈
Switching frequency	0.01 kHz
Mechanical data	
Design	Rectangular, CP40
Dimensions	114 x 40 x 40 mm
Housing material	Plastic, PBT-GF30-V0, Black
Active area material	Plastic, PA6-GF30-X, yellow
Electrical connection	Terminal chamber
Clamping ability	≤ 2.5 mm²
Environmental conditions	
Ambient temperature	-30…+85 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
MTTF	874 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	2 × LEDs, Green
Switching state	2 × LEDs, Yellow

Mounting instructions

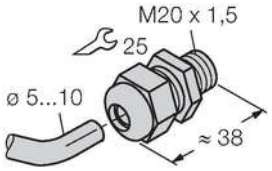
Mounting instructions/Description

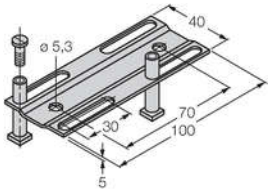


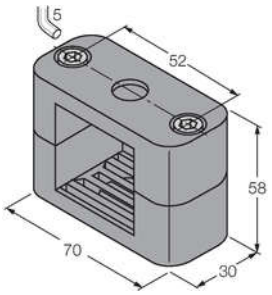
Distance D	240 mm
Distance W	120 mm
Distance T	140 mm
Distance S	60 mm
Distance G	240 mm
Distance N	30 mm
Width active area B	40 mm

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Accessories

STRM M20X1.5 SCHWARZ	6965902
	M20 × 1.5 cable gland

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

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