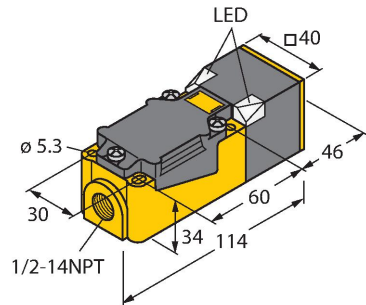


NI40-CP40-FZ3X2/S100-S10

Inductive Sensor – With Increased Temperature Range



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
- Temperatures up to +100 °C
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- Programmable connection (NC or NO)
- Terminal chamber

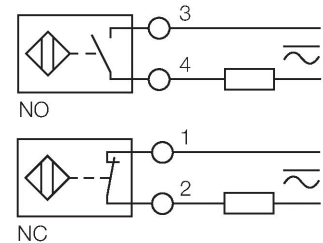
Technical data

Type	NI40-CP40-FZ3X2/S100-S10
ID	1374802
Remark to product	Sensor without printed type designation or CE marking, for TUSA internal use only Identical to sensor with ID 4417063
Special version	S100-S10 Corresponds to: Mounting base with 1/2-14NPT thread Maximum ambient temperature = 100 °C

General data	
Rated switching distance	40 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	≤ 2 % of full scale
	$\leq \pm 20$ %, $\geq +70$ °C
Hysteresis	3...15 %

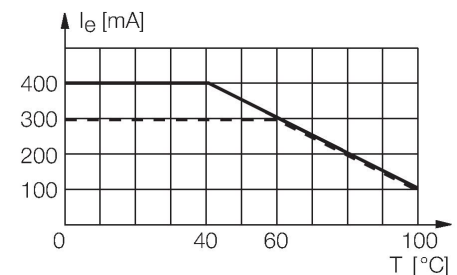
Electrical data	
Operating voltage U_B	20...250 VAC
Operating voltage U_B	10...300 VDC
AC rated operational current	≤ 400 mA
DC rated operating current I_a	≤ 300 mA
Rated operational current	See derating curve
Frequency	≥ 50 ... ≤ 60 Hz
Residual current	≤ 1.7 mA
Isolation test voltage	1.5 kV

Wiring diagram



Functional principle

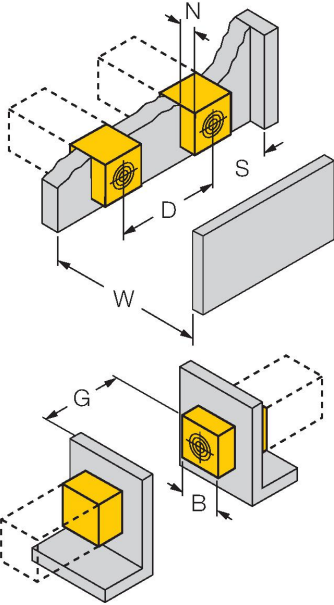
Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit. Special versions are available for ambient temperatures between -60°C and +250°C.



Technical data

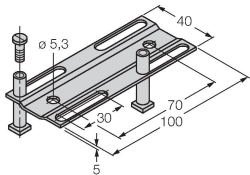
Surge current	$\leq 8 \text{ A}$ ($\leq 10 \text{ ms max. 5 Hz}$)
Voltage drop at I_o	$\leq 6 \text{ V}$
Output function	2-wire, Connection programmable, 2-wire
Smallest operating current	$\geq 3 \text{ mA}$
Switching frequency	0.02 kHz
Mechanical data	
Design	Rectangular, CP40
Dimensions	114 x 40 x 40 mm
Housing material	Plastic, PBT-GF30-V0, Black
Active area material	Plastic, PBT-GF30-V0, yellow
Electrical connection	Terminal chamber
Clamping ability	$\leq 2.5 \text{ mm}^2$
Environmental conditions	
Ambient temperature	-25...+100 °C
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
	4.5 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

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	

