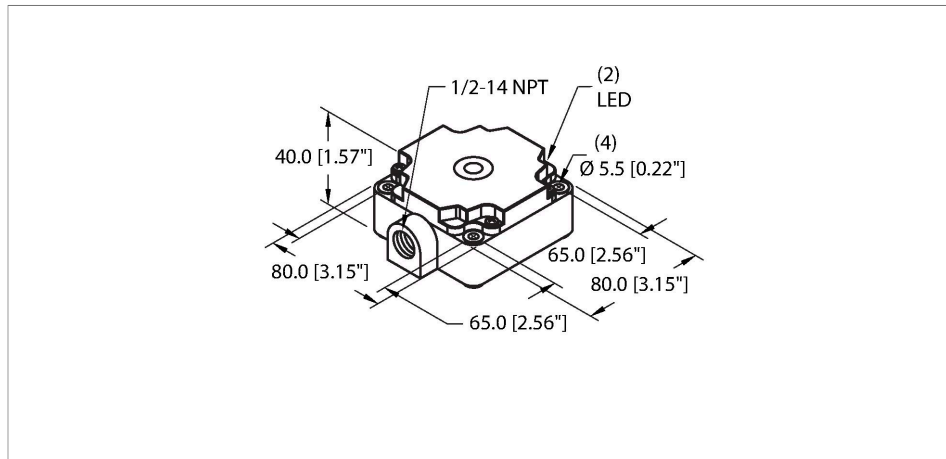


# NI50-CP80-FDZ30X2/S10-S100

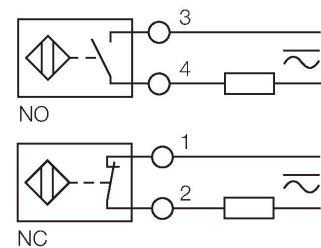
## Inductive Sensor – With Increased Temperature Range



### Features

- Rectangular, height 41 mm
- Plastic, PBT-GF30-V0
- Temperatures up to +100 °C
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NC/NO programmable
- Terminal chamber

### Wiring diagram



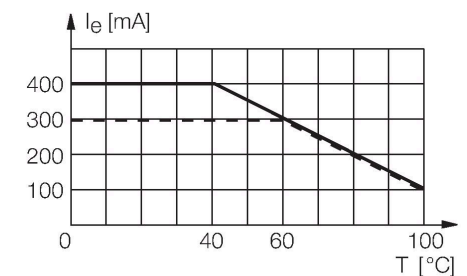
### Technical data

Type	NI50-CP80-FDZ30X2/S10-S100
ID	4229000
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	50 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	$\leq \pm 10$ % $\leq \pm 20$ %, $\geq +70$ °C
Hysteresis	3...15 %
Electrical data	
Operating voltage	20...250 VAC
Operating voltage	10...300 VDC
AC rated operational current	$\leq 400$ mA
DC rated operational current	$\leq 300$ mA
Rated operational current	See derating curve
Frequency	$\geq 50$ ... $\leq 60$ Hz
Residual current	$\leq 1.7$ mA

### 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.

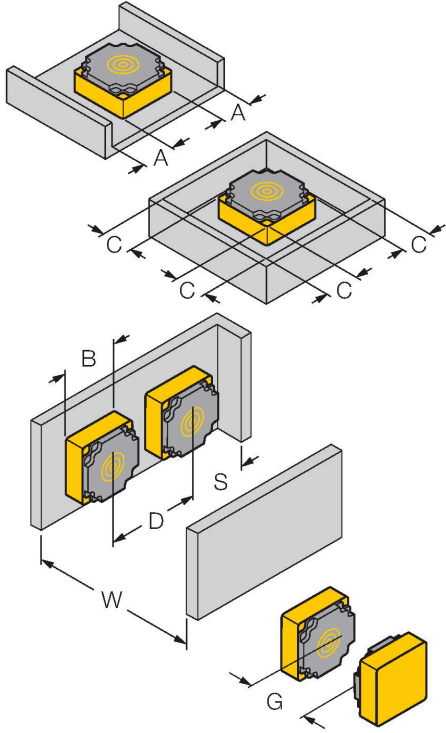


## Technical data

Isolation test voltage	≤ 1.5 kV
Surge current	≤ 3 A (≤ 20 ms max. 5 Hz)
Short-circuit protection	yes / Latching
Voltage drop at I <sub>o</sub>	≤ 6 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	2-wire, Connection programmable, 2-wire
Smallest operating current	≥ 3 mA
Switching frequency	0.02 kHz
<b>Mechanical data</b>	
Design	Rectangular, CP80
Dimensions	80 x 80 x 41 mm
Housing material	Plastic, PBT-GF30-V0
Active area material	PBT-GF30-V0
Electrical connection	Terminal chamber
Clamping ability	≤ 2.5 mm <sup>2</sup>
<b>Environmental conditions</b>	
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	LED, Green
Switching state	LED, 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 A	$1 \times B$
Distance C	$1 \times B$
Width active area B	80 mm