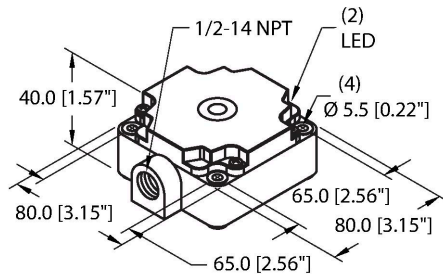


NI40-CP80-FZ3X2/S100-S10

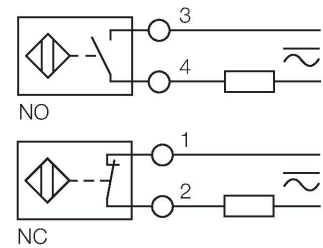
Inductive Sensor – With Increased Temperature Range



Features

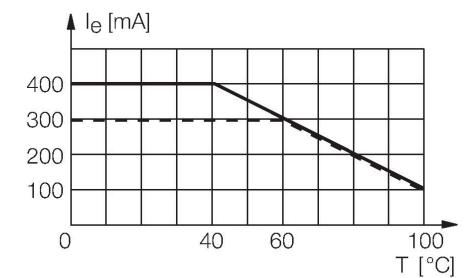
- Rectangular, height 41 mm
- Plastic, PBT-GF30-V0
- Temperatures up to +100 °C
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- Programmable connection (NC or NO)
- Terminal chamber

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

Type	NI40-CP80-FZ3X2/S100-S10
ID	13453
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

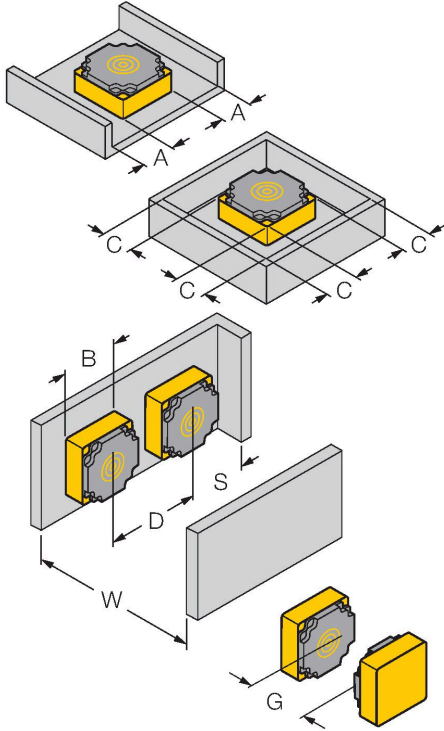
General data	
Rated switching distance	40 mm
Mounting conditions	Non-flush
Secured operating distance	≤ (0.81 × S _n) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale ≤ ± 20 %, ≥ +70 °C
Hysteresis	3...15 %
Electrical data	
Operating voltage U _B	20...250 VAC
Operating voltage U _B	10...300 VDC
AC rated operational current	≤ 400 mA
DC rated operating current I _e	≤ 300 mA
Rated operational current	See derating curve
Frequency	≥ 50...≤ 60 Hz
Residual current	≤ 1.7 mA
Isolation test voltage	1.5 kV

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	0.01 kHz
Mechanical data	
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	$\leq 2.5 \text{ mm}^2$
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	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