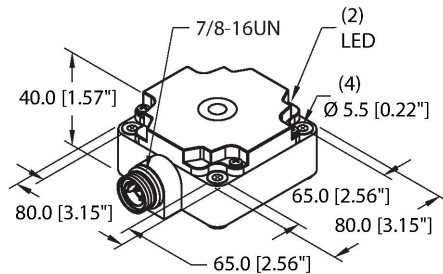


NI50-CP80-FZ3X2-B2131

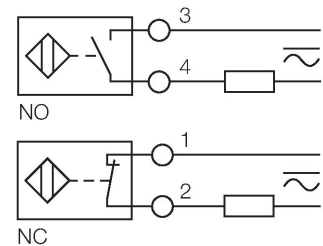
Inductive Sensor – With Increased Switching Distance



Features

- Rectangular, height 41 mm
- Plastic, PBT-GF30-V0
- Large sensing range
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- 7/8" connector

Wiring diagram

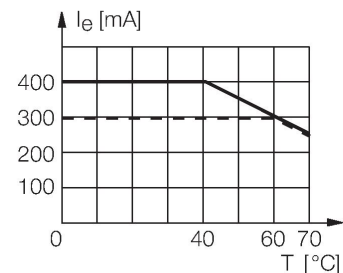


Technical data

Type	NI50-CP80-FZ3X2-B2131
Ident. no.	1341695
Rated switching distance	50 mm
Mounting conditions	Non-flush
Secured operating distance	$\leq (0.81 \times S_n) \text{ mm}$
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	$\leq 300 \text{ mA}$
Frequency	$\geq 50 \dots \leq 60 \text{ Hz}$
Residual current	$\leq 1.7 \text{ mA}$
Isolation test voltage	$\leq 1.5 \text{ kV}$
Surge current	$\leq 8 \text{ A} (\leq 10 \text{ ms max. } 5 \text{ Hz})$
Voltage drop at I_o	$\leq 6 \text{ V}$
Output function	2-wire, Connection programmable
Smallest operating current	$\geq 3 \text{ mA}$
Switching frequency	0.02 kHz
Design	Rectangular, CP80
Dimensions	80 x 80 x 41 mm

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.

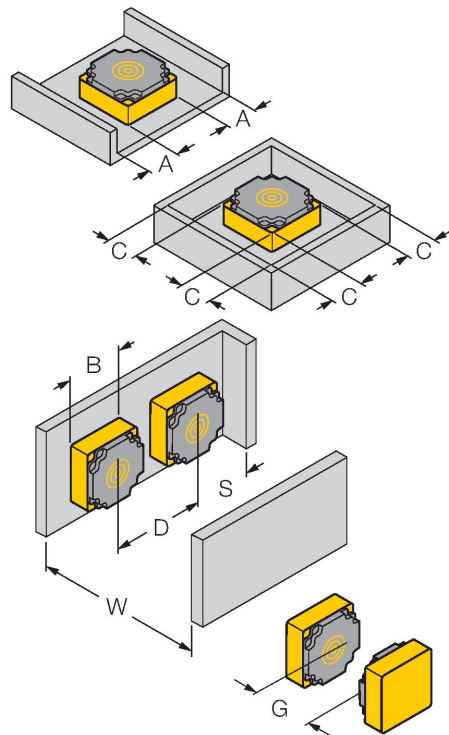


Technical data

Housing material	Plastic, PBT-GF30-V0
Active area material	PBT-GF30-V0
Electrical connection	Connector, 7/8"
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