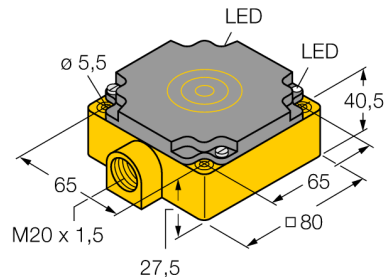


Inductive sensor with extended switching distance NI50-CP80-FZ3X2

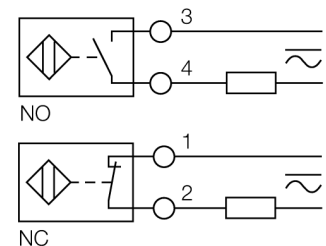
TURCK

Industrial
Automation



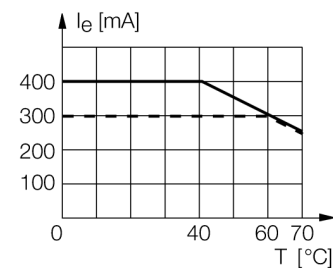
- Rectangular, height 41 mm
- Plastic, PBT-GF30-V0
- Large detection range
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO/NC programmable
- Terminal chamber

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.



Type code	NI50-CP80-FZ3X2
Ident no.	13406
Rated operating distance S_n	50 mm
Mounting condition	non-flush
Assured sensing range	≤ (0,81 x S _n) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	≤ 2 % of full scale
Temperaturdrift	10 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	20...250 VAC
Operating voltage	10...300VDC
AC rated operational current	≤ 400 mA
DC rated operational current	≤ 300 mA
Frequency	≥ 50...≤ 60 Hz
Residual current	≤ 1.7 mA
Rated insulation voltage	≤ 1.5 kV
Surge current	≤ 8 A (≤ 10 ms max. 5 Hz)
Voltage drop at I _e	≤ 6 V
Output function	2-wire, connection programmable
Smallest operating current I _m	≤ 3 mA
Switching frequency	0.01 kHz
Design	rectangular, CP80
Dimensions	80x 80x 41 mm
Housing material	Plastic, PBT
Connection	Terminal chamber
Clamping ability	≤ 2.5 mm ²
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
Operating voltage	LED green
Switching state	• red

Inductive sensor with extended switching distance NI50-CP80-FZ3X2

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 of the active face B 80 mm

