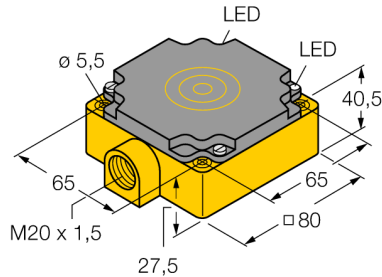
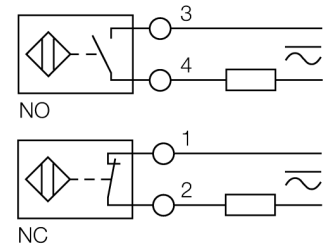


**Inductive sensor  
with extended temperature range  
NI40-CP80-FZ3X2/S97**



- Rectangular, height 41 mm
- Plastic, PBT-GF30-V0
- For temperatures up to -40 °C
- AC 2-wire, 20...250 VAC
- 2-wire DC, 10...300 VDC
- NC/NO programmable
- Terminal chamber

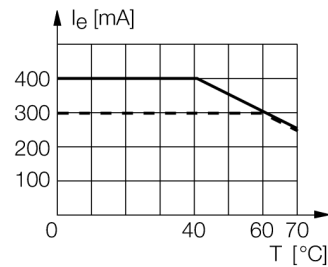
**Wiring diagram**



**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.

Special versions are available for ambient temperatures between -60°C and +250°C.



<b>Type code</b>	NI40-CP80-FZ3X2/S97
Ident no.	1340510
<b>Rated operating distance Sn</b>	40 mm
Mounting condition	non-flush
Assured sensing range	≤ (0,81 x Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	≤ 2 % of full scale
Temperature drift	10 %
Hysteresis	≤ ± 20 %, ≤ -25 °C
Ambient temperature	-40...+70 °C
<b>Operating voltage</b>	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 <sub>e</sub>	≤ 6 V
Output function	2-wire, connection programmable
Smallest operating current I <sub>m</sub>	≤ 3 mA
Switching frequency	0.01 kHz
<b>Design</b>	rectangular, CP80
Dimensions	80 x 80 x 41 mm
Housing material	plastic, PBT
Connection	terminal chamber
Clamping ability	≤ 2.5 mm <sup>2</sup>
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
<b>Power-on indication</b>	LED green
Switching state	LED red

**Inductive sensor  
with extended temperature range  
NI40-CP80-FZ3X2/S97**

Distance W	3 x Sn
Distance S	1.5 x B
Distance G	6 x Sn
Distance A	1 x B
Distance C	1 x B

Width of the active face B 80 mm

