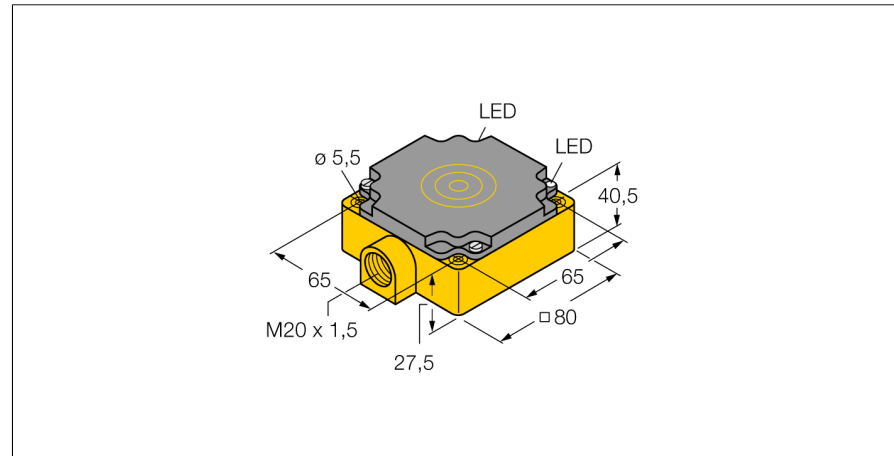
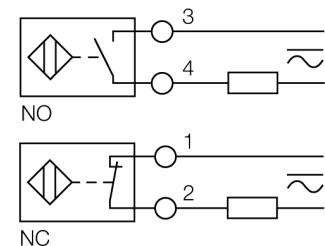


**Inductive sensor
with extended temperature range
NI40-CP80-FZ3X2/S100**



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

Wiring diagram

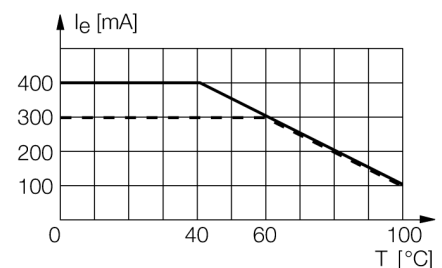


Functional principle

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.

derating curve



| | |
|---|---|
| Type code | NI40-CP80-FZ3X2/S100 |
| Ident no. | 13443 |
| Rated operating distance S_n | 40 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 |
| Temperature drift | 10 % |
| Hysteresis | ≤ ± 20 %, ≥ +70 °C |
| Ambient temperature | -25...+100 °C |
| Operating voltage | 20...250 VAC |
| Operating voltage | 10...300VDC |
| AC rated operational current | ≤ 400 mA |
| DC rated operational current | ≤ 300 mA |
| Rated operational current | see derating curve |
| 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 _o | ≤ 3 mA |
| Switching frequency | 0.01 kHz |
| Design | rectangular, CP80 |
| Dimensions | 80 x 80 x 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 |
| Power-on indication | LED green |
| Switching state | LED red |

**Inductive sensor
with extended temperature range
NI40-CP80-FZ3X2/S100**

| | |
|------------|---------|
| 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

