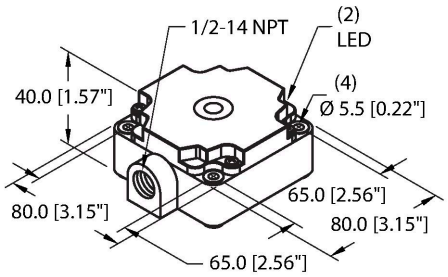
# NI40-CP80-VP4X2/F2-S10
# Inductive Sensor – With Increased Switching Distance



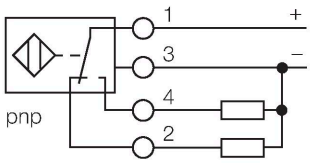

## Technical data

| Type | NI40-CP80-VP4X2/F2-S10 |
|---|---|
| ID | 15119 |
| Special version | S10 Corresponds to:Mounting base with 1/2-14NPT thread |
| **General data** | |
| Rated switching distance | 40 mm |
| Mounting conditions | Non-flush |
| Secured operating distance | ≤ (0.81 × Sn) mm |
| Correction factors | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeat accuracy | ≤ 2 % of full scale |
| Hysteresis | 3…15 % |
| **Electrical data** | |
| Operating voltage $U_B$ | 10…65 VDC |
| Ripple $U_{ss}$ | ≤ 10 % $U_{Bmax}$ |
| DC rated operating current $I_e$ | ≤ 200 mA |
| No-load current | ≤ 15 mA |
| Residual current | ≤ 0.1 mA |
| Isolation test voltage | 0.5 kV |
| Short-circuit protection | yes/Cyclic |
| Voltage drop at $I_e$ | ≤ 1.8 V |
| Wire break/reverse polarity protection | yes/Complete |
| Output function | 4-wire, Complementary contact, PNP |
| Switching frequency | 0.1 kHz |

## Features

- Rectangular, height 41 mm
- Plastic, PBT-GF30-V0
- Large coverage
- Oscillation frequency F2
- DC 4-wire, 10…65 VDC
- Changeover contact, PNP output
- Terminal chamber

## Wiring diagram




## Functional principle

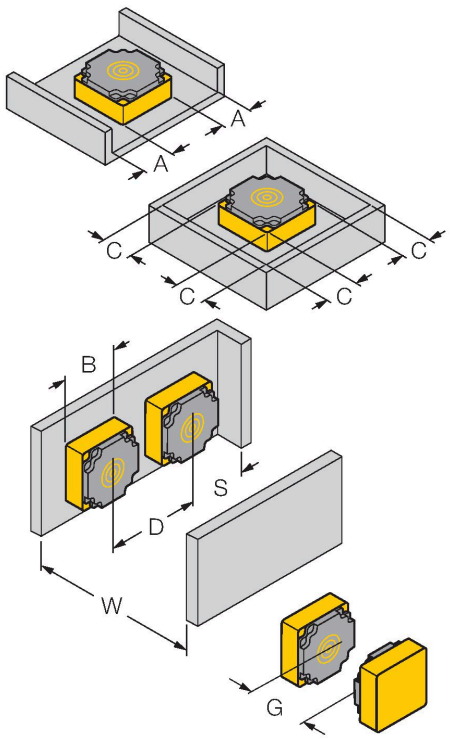
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

## Technical data

| 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 | ≤ 2.5 mm² |
| **Environmental conditions** | |
| Ambient temperature | -25…+70 °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, Yellow |

## Mounting instructions

Mounting instructions/Description




| | |
|---|---|
| Distance D | 3 x B |
| 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 active area B | 80 mm |