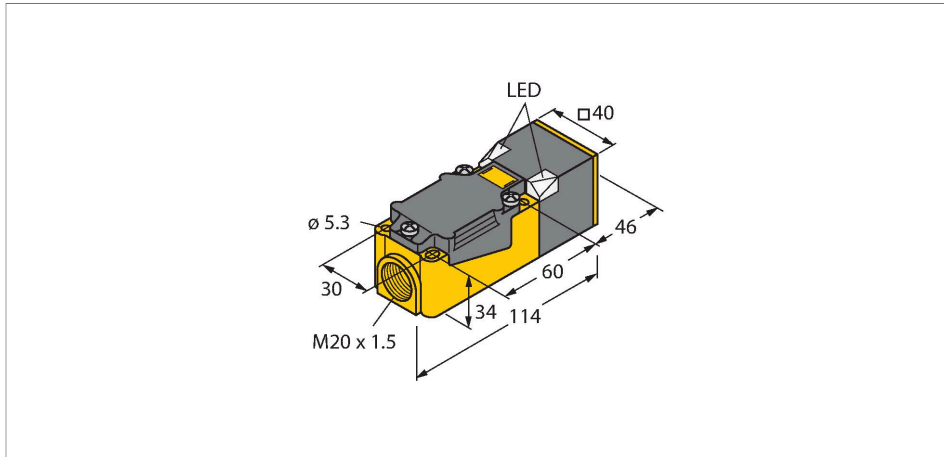


NI35-CP40-VP4X2/S97

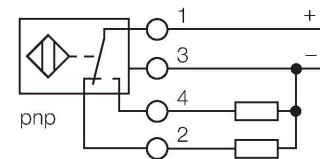
Inductive Sensor – With Increased Temperature Range



Features

- Rectangular, height 40 mm
- Variable orientation of active face in 9 directions
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on supply voltage and switching state from any position
- Temperatures up to -40 °C
- 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 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.

Technical data

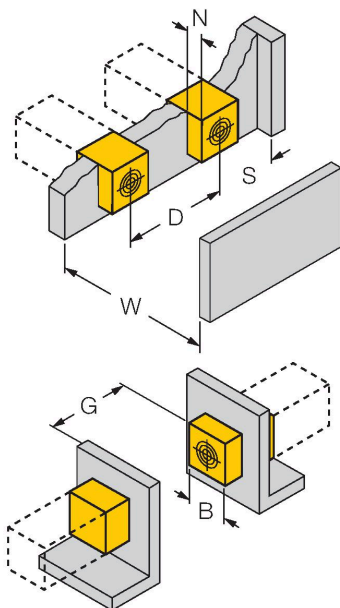
| | |
|---|---|
| Type | NI35-CP40-VP4X2/S97 |
| Ident. no. | 1569421 |
| Rated switching distance | 35 mm |
| Mounting conditions | Non-flush |
| Secured operating distance | $\leq (0.81 \times S_n)$ mm |
| Correction factors | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeat accuracy | ≤ 2 % of full scale |
| Temperature drift | $\leq \pm 10$ % $\leq \pm 20$ %, ≤ -25 °C |
| Hysteresis | 3...15 % |
| Ambient temperature | -40...+70 °C |
| Operating voltage | 10...65 VDC |
| Residual ripple | ≤ 10 % U_{ss} |
| DC rated operational current | ≤ 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_o | ≤ 1.8 V |
| Wire breakage/Reverse polarity protection | yes / Complete |
| Output function | 4-wire, Complementary contact, PNP |
| Switching frequency | 0.15 kHz |

Technical data

| | |
|-----------------------|--|
| Design | Rectangular, CP40 |
| Dimensions | 114 x 40 x 40 mm |
| Housing material | Plastic, PBT-GF30-V0, Black |
| Active area material | Plastic, PBT-GF30-V0, yellow |
| Electrical connection | Terminal chamber |
| Clamping ability | $\leq 2.5 \text{ mm}^2$ |
| 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 | 2 × LEDs, Green |
| Switching state | 2 × LEDs, Yellow |

Mounting instructions

Mounting instructions/Description



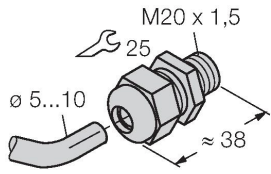
| | |
|---------------------|----------------|
| Distance D | $3 \times B$ |
| Distance W | $3 \times S_n$ |
| Distance S | $1.5 \times B$ |
| Distance G | $6 \times S_n$ |
| Distance N | $1 \times B$ |
| Width active area B | 40 mm |

Accessories

STRM M20X1.5 SCHWARZ

6965902

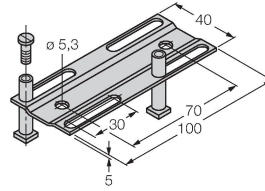
M20 × 1.5 cable gland



Adjusting bar JS 025/037

69429

Adjusting bar for rectangular housings CK/CP40; material: VA 1.4301



BSS-CP40

6901318

Mounting clamp for rectangular housings 40 x 40 mm; material: Polypropylene

