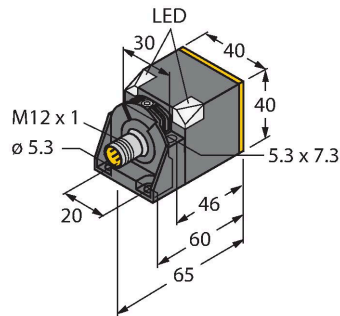


NI35U-CK40-VP6X2-H1141

Inductive Sensor – With Increased Switching Distance



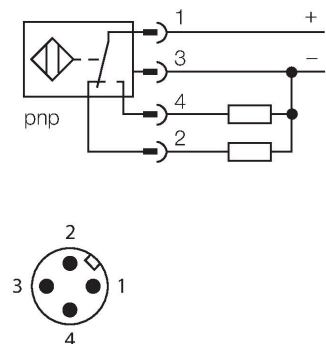
Technical data

| | |
|--|--|
| Type | NI35U-CK40-VP6X2-H1141 |
| ID | 1625815 |
| General data | |
| Rated switching distance | 35 mm |
| Mounting conditions | Non-flush, partially embeddable |
| Secured operating distance | $\leq (0.81 \times S_n)$ mm |
| Repeat accuracy | $\leq 2 \%$ of full scale |
| Temperature drift | $\leq \pm 10 \%$ |
| | $\leq \pm 20 \%, \leq -25 \text{ °C} \vee \geq +70 \text{ °C}$ |
| Hysteresis | 3...15 % |
| Electrical data | |
| Operating voltage U_B | 10...30 VDC |
| Ripple U_{ss} | $\leq 10 \%$ U_{Bmax} |
| DC rated operating current I_o | ≤ 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 break/reverse polarity protection | yes/Complete |
| Output function | 4-wire, Complementary contact, PNP |
| DC field stability | 300 mT |
| AC field stability | 300 mT _{ss} |
| Insulation class | □ |

Features

- Rectangular, height 40 mm
- Variable orientation of active face in 5 directions
- Plastic, PBT-GF30-V0
- High luminance corner LEDs
- Optimum view on supply voltage and switching state from any position
- Factor 1 for all metals
- Increased switching distance
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- Auto-compensation protects against pre-damping
- DC 4-wire, 10...30 VDC
- Changeover contact, PNP output
- M12 x 1 male connector

Wiring diagram



Technical data

| | |
|---------------------------------|---|
| Switching frequency | 0.25 kHz |
| Mechanical data | |
| Design | Rectangular, CK40 |
| Dimensions | 65 x 40 x 40 mm |
| | variable orientation of active face in 5 directions |
| Housing material | Plastic, PBT-GF20-V0, Black |
| Active area material | Plastic, PA12-GF30, yellow |
| Electrical connection | Connector, M12 x 1 |
| Environmental conditions | |
| Ambient temperature | -30...+85 °C |
| Vibration resistance | 55 Hz (1 mm) |
| Shock resistance | 30 g (11 ms) |
| Protection class | IP68 |
| MTTF | 874 years acc. to SN 29500 (Ed. 99) 40 °C |
| Power-on indication | 2 x LEDs, Green |
| Switching state | 2 x LEDs, Yellow |
| Included in delivery | Fixing clamp BS4-CK40 |

Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox Factor 1 sensors have significant advantages due to their patented ferrite-coreless multi-coil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.

Mounting instructions

| Mounting instructions/Description | |
|--|---------------------------|
| | Distance D 120 mm |
| | Distance W 105 mm |
| | Distance T 140 mm |
| | Distance S 60 mm |
| | Distance G 210 mm |
| | Distance N 30 mm |
| | Width active area B 40 mm |
| <p>Flush mounting</p> <p>1-side mounting: $S_r = 28$ mm</p> <p>2-side mounting: $S_r = 24$ mm</p> <p>3-side mounting: $S_r = 19$ mm</p> <p>Backside mounting with full switching distance.</p> <p>Recessed mounting with reduced switching distance.</p> <p>The values stated relate to a 1 mm thick steel plate.</p> | |

Accessories

BSS-CP40

6901318

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

