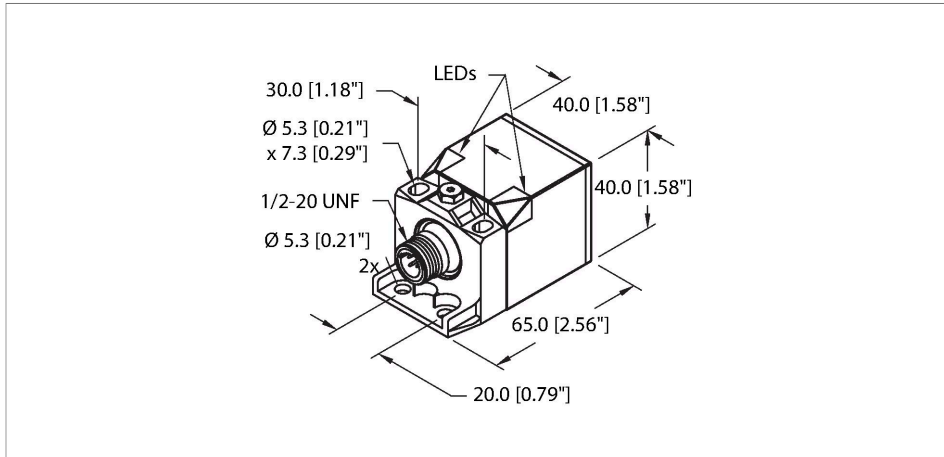


NI25U-CK40-ADZ30X2-B3131 W/BS 2.1 Inductive Sensor



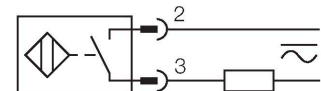
Technical data

| | |
|--|--|
| Type | NI25U-CK40-ADZ30X2-B3131 W/BS 2.1 |
| ID | 4280291 |
| General data | |
| Rated switching distance | 25 mm |
| Mounting conditions | Non-flush |
| Secured operating distance | $\leq (0.81 \times S_n)$ mm |
| Repeat accuracy | $\leq 2 \%$ of full scale |
| | $\leq \pm 15 \%$, $\leq -25 \text{ }^\circ\text{C}$ v $\geq +70 \text{ }^\circ\text{C}$ |
| Hysteresis | 3...15 % |
| Electrical data | |
| Operating voltage U_b | 20...250 VAC |
| Operating voltage U_b | 10...300 VDC |
| AC rated operational current | ≤ 400 mA |
| DC rated operating current I_o | ≤ 300 mA |
| Frequency | $\geq 50 \dots \leq 60$ Hz |
| Residual current | ≤ 1.7 mA |
| Isolation test voltage | 1.5 kV |
| Surge current | ≤ 3 A (≤ 20 ms max. 5 Hz) |
| Short-circuit protection | yes/Latching |
| Voltage drop at I_o | ≤ 6 V |
| Wire break/reverse polarity protection | yes/Complete |
| Output function | 2-wire, NO contact, 2-wire |
| DC field stability | 300 mT |
| AC field stability | 300 mT _{ss} |

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
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- AC 2-wire, 20...250 VAC
- DC 2-wire, 10...300 VDC
- NO contact
- 1/2" male connector

Wiring diagram

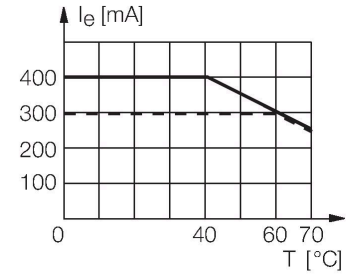


Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. Approx 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.

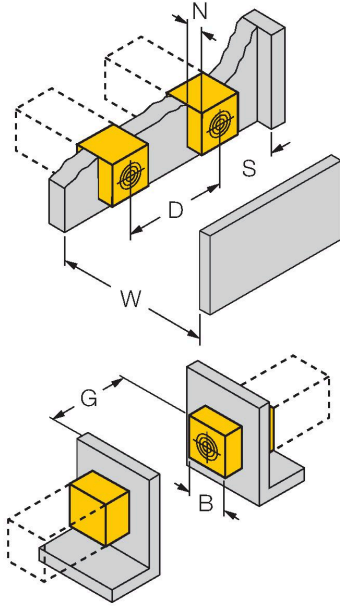
Technical data

| | |
|---------------------------------|---|
| Smallest operating current | ≥ 3 mA |
| Insulation class | □ |
| Switching frequency | 0.01 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, 1/2" |
| 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 × LEDs, Green |
| Switching state | 2 × LEDs, Yellow |
| Included in delivery | BS2.1-CK40 |



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

BSS-CP40

6901318

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

