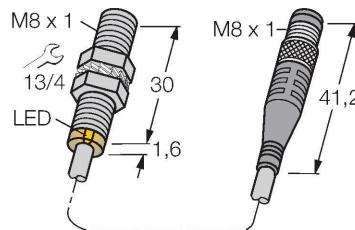


BI3U-EM08-AP6X-0.2-PSG3M

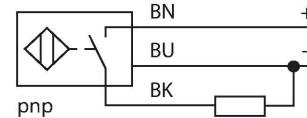
Inductive Sensor



Features

- Threaded barrel, M8 x 1
- Stainless steel, 1.4427 SO
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Large switching distance
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

Wiring diagram



Functional principle

Inductive sensors are designed for wear-free and contactless detection of metal objects. uprox3 sensors have significant advantages due to their patented multi-coil system. They excel thanks to their optimum switching distances, maximum flexibility and operational reliability as well as efficient standardization.

Technical data

| | |
|--|-----------------------------|
| Type | BI3U-EM08-AP6X-0.2-PSG3M |
| ID | 4602416 |
| General data | |
| Rated switching distance | 3 mm |
| Mounting conditions | Flush |
| Secured operating distance | $\leq (0.81 \times S_n)$ mm |
| Repeat accuracy | $\leq 2\%$ of full scale |
| Temperature drift | $\leq \pm 10\%$ |
| Hysteresis | 3...15 % |
| Electrical data | |
| Operating voltage U_B | 10...30 VDC |
| Ripple U_{ss} | $\leq 10\% U_{B\max}$ |
| DC rated operating current I_e | ≤ 150 mA |
| No-load current | ≤ 20 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 | 3-wire, NO contact, PNP |
| DC field stability | 200 mT |
| AC field stability | 200 mT _{ss} |
| Insulation class | □ |
| Switching frequency | 1 kHz |

Technical data

Mechanical data

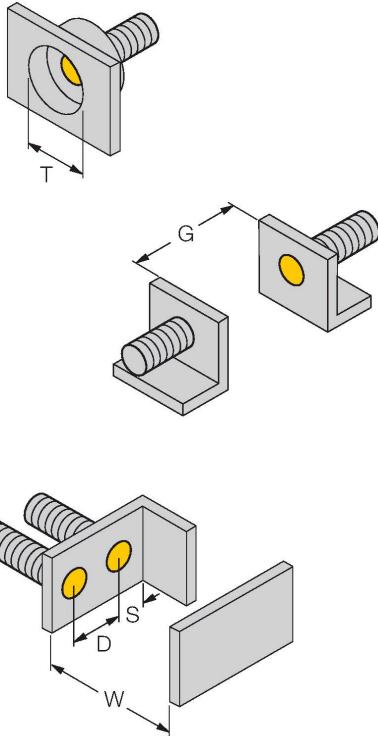
| | |
|---------------------------------------|------------------------------|
| Design | Threaded barrel, M8 x 1 |
| Dimensions | 31.6 mm |
| Housing material | Stainless steel, 1.4427 SO |
| Active area material | Plastic |
| End cap | Plastic, PP |
| Material coupling nut | metal, CuZn, nickel-plated |
| Max. tightening torque of housing nut | 5 Nm |
| Electrical connection | Cable |
| Cable quality | Ø 3 mm, LiFY-11Y, PUR, 0.2 m |
| Core cross-section | 3 x 0.14 mm ² |

Environmental conditions

| | |
|----------------------|---|
| Ambient temperature | 0...+60 °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 |
| Switching state | LED, Yellow |

Mounting instructions

Mounting instructions/Description



| | |
|------------------------|--------------------------|
| Distance D | $2 \times B$ |
| Distance W | $3 \times S_n$ |
| Distance T | $3 \times B$ |
| Distance S | $1.5 \times B$ |
| Distance G | $6 \times S_n$ |
| Diameter active area B | $\emptyset 8 \text{ mm}$ |

Accessories

QM-08

6945100

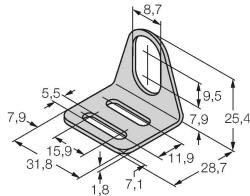
Quick-mount bracket with dead-stop, chrome-plated brass, male thread M12 x 1. Note: The switching distance of proximity switches may be reduced through the use of quick-mount brackets.



MW08

6945008

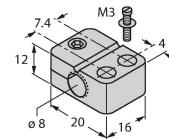
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)



BST-08B

6947210

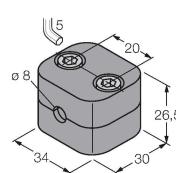
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



BSS-08

6901322

Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene



MBS80

69479

Mounting clamp for smooth barrel
sensors; mounting block material:
Anodized aluminum

