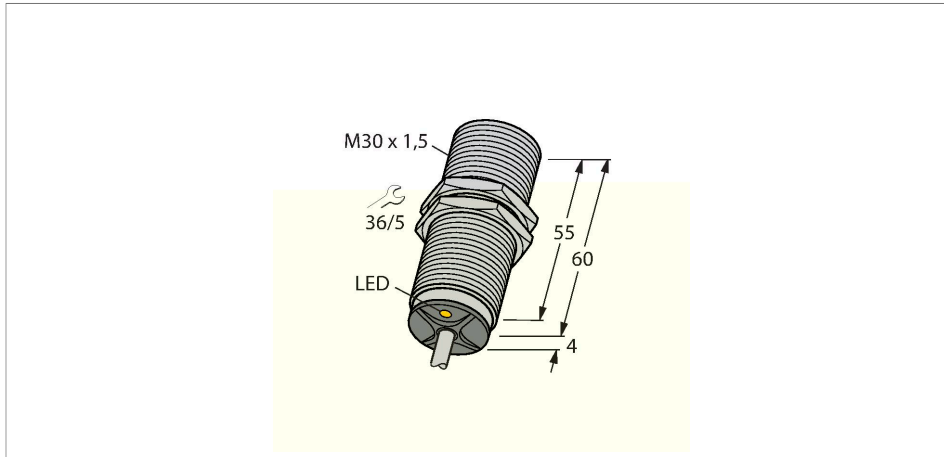


# BI10U-EM30-AP6X

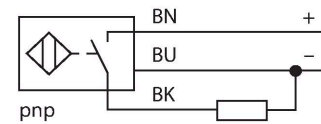
## Inductive Sensor



### Features

- M30 × 1.5 threaded tube
- Stainless steel, 1.4301
- Factor 1 for all metals
- Protection class IP68
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

### Wiring diagram



### Technical data

|   |  |
|---|--|
| Type                                      | BI10U-EM30-AP6X  |
| Ident. no.                                | 1636300  |
| Rated switching distance                  | 10 mm  |
| Mounting conditions                       | Flush  |
| Secured operating distance                | $\leq (0.81 \times S_n)$ mm  |
| Repeat accuracy                           | $\leq 2\%$ of full scale   |
| Temperature drift                         | $\leq \pm 10\%$<br>$\leq \pm 15\%$ , $\leq -25\text{ °C}$ v $\geq +70\text{ °C}$ |
| Hysteresis                                | 3...15 %   |
| Ambient temperature                       | -30...+85 °C   |
| Operating voltage                         | 10...30 VDC  |
| Residual ripple                           | $\leq 10\% U_s$  |
| DC rated operational current              | $\leq 200$ mA  |
| No-load current                           | $\leq 20$ mA   |
| Residual current                          | $\leq 0.1$ mA  |
| Isolation test voltage                    | $\leq 0.5$ kV  |
| Short-circuit protection                  | yes / Cyclic   |
| Voltage drop at $I_e$                     | $\leq 1.8$ V   |
| Wire breakage/Reverse polarity protection | yes / Complete   |
| Output function                           | 3-wire, NO contact, PNP  |
| Insulation class                          | □  |
| Switching frequency                       | 2 kHz  |
| Design                                    | Threaded barrel, M30 × 1.5   |
| Dimensions                                | 64 mm  |

### Functional principle

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

## Technical data

|                                    |   |
|------------------------------------|---|
| Housing material                   | Stainless steel, V2A (1.4301)             |
| Active area material               | Plastic, LCP                              |
| End cap                            | Plastic, EPTR                             |
| Max. tightening torque housing nut | 75 Nm                                     |
| Electrical connection              | Cable                                     |
| Cable quality                      | Ø 5.2 mm, LifYY, PVC, 2 m                 |
| Core cross-section                 | 3 x 0.34 mm <sup>2</sup>                  |
| 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



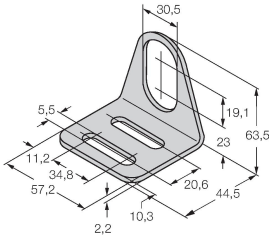
|                           |         |
|---------------------------|---------|
| Distance D                | 60 mm   |
| Distance W                | 3 x Sn  |
| Distance T                | 3 x B   |
| Distance S                | 1.5 x B |
| Distance G                | 6 x Sn  |
| Diameter active area<br>B | Ø 30 mm |

## Accessories

MW30

6945005

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



BSS-30

6901319

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

