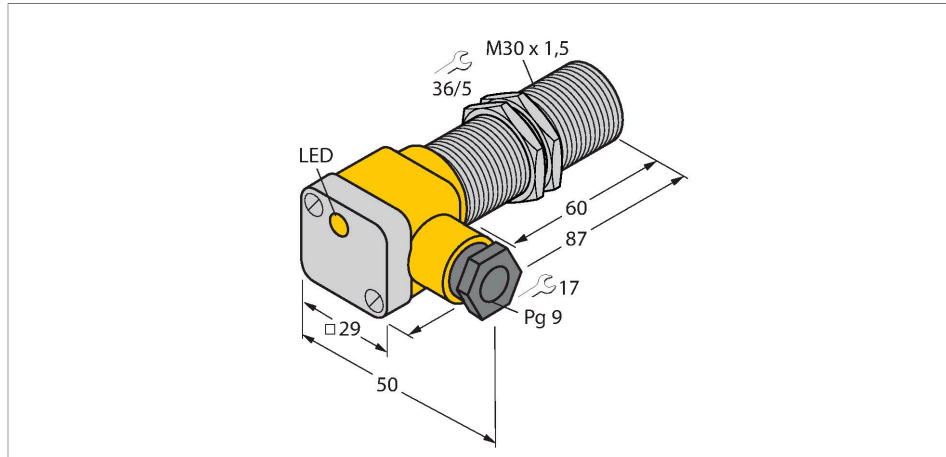


# BI10U-EG30SK-AN6X

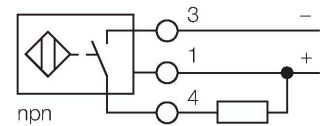
## Inductive Sensor – With Increased Switching Distance



### Features

- Threaded barrel, M30 x 1.5
- Stainless steel, 1.4301
- Factor 1 for all metals
- Resistant to magnetic fields
- Extended temperature range
- High switching frequency
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- Terminal chamber

### Wiring diagram



### Technical data

|   |   |
|---|---|
| Type                                      | BI10U-EG30SK-AN6X   |
| Ident. no.                                | 1636420   |
| 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                         | $\leq \pm 10\%$   |
|   | $\leq \pm 15\%$ , $\leq -25\text{ °C}$ 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, NPN                                       |
| Insulation class                          | 2   |
| Switching frequency                       | 2 kHz   |
| Design                                    | Threaded barrel, M30 x 1.5                                    |
| Dimensions                                | 87 mm   |

### Functional principle

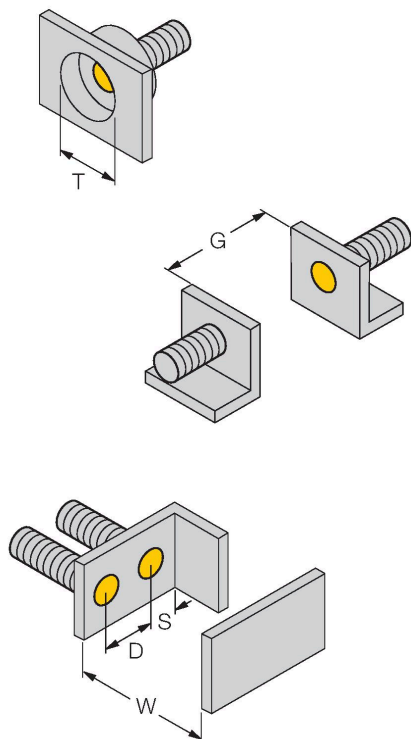
Inductive sensors detect metal objects contactless and wear-free. *uprox*® Factor 1 sensors have significant advantages due to their patented ferrite-coreless multicoil system. They detect all metals at the same large switching distance and are resistant to magnetic fields.

## Technical data

|                                    |   |
|------------------------------------|---|
| Housing material                   | Stainless steel, V2A (1.4301)             |
| Terminal chamber cover material    | plastic, Ultem                            |
| Terminal chamber housing material  | plastic, plastic, PA12-GF20               |
| Active area material               | Plastic, LCP                              |
| Max. tightening torque housing nut | 75 Nm                                     |
| Electrical connection              | Terminal chamber                          |
| Clamping ability                   | $\leq 2.5 \text{ mm}^2$                   |
| Cable external diameter            | 4.5...8 mm                                |
| Vibration resistance               | 55 Hz (1 mm)                              |
| Shock resistance                   | 30 g (11 ms)                              |
| Protection class                   | IP67                                      |
| MTTF                               | 874 years acc. to SN 29500 (Ed. 99) 40 °C |
| Switching state                    | LED, Yellow                               |
| Included in delivery               | cable gland; 2x plastic seals             |

## Mounting instructions

### Mounting instructions/Description

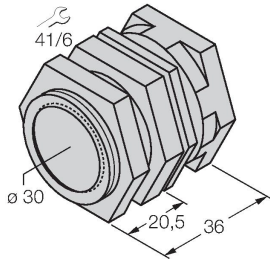


|                           |         |
|---------------------------|---------|
| Distance D                | 2 x B   |
| Distance W                | 3 x Sn  |
| Distance T                | 3 x B   |
| Distance S                | 1.5 x B |
| Distance G                | 6 x Sn  |
| Diameter active area<br>B | Ø 30 mm |

## Accessories

QM-30

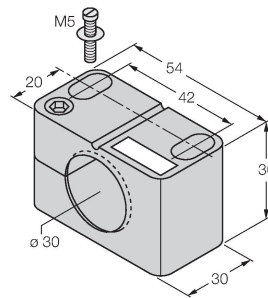
6945103



Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M36 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

BST-30B

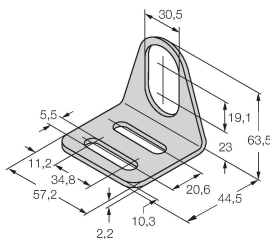
6947216



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

MW30

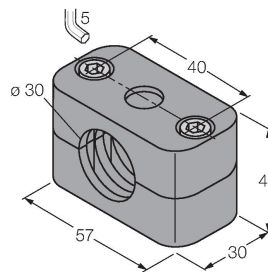
6945005



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