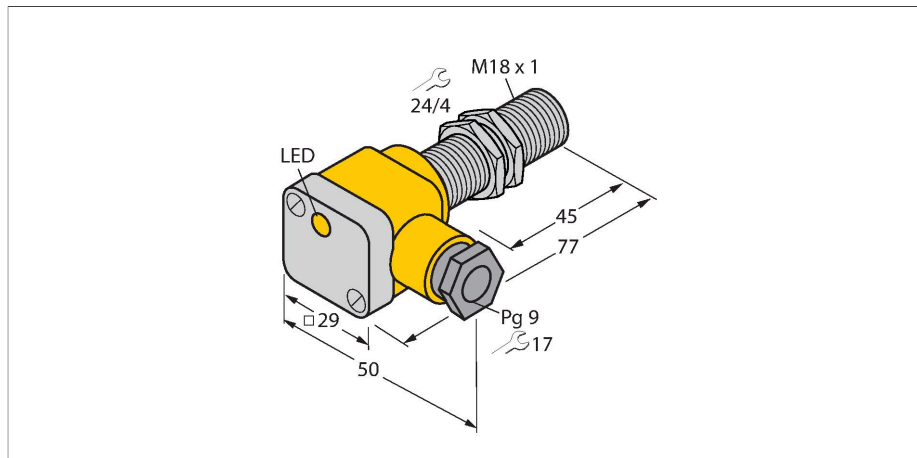


BI5-G18SK-AP6X

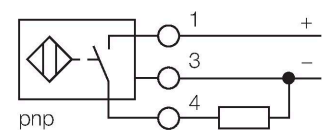
Inductive Sensor



Features

- M18 × 1 threaded barrel
- Chrome-plated brass
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Terminal chamber

Wiring diagram



Technical data

| | |
|---|---|
| Type | BI5-G18SK-AP6X |
| ID | 46420 |
| General data | |
| Rated switching distance | 5 mm |
| Mounting conditions | Flush |
| Secured operating distance | $\leq (0.81 \times S_n)$ mm |
| Correction factors | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeat accuracy | ≤ 2 % of full scale |
| Temperature drift | $\leq \pm 10$ % |
| Hysteresis | 3...15 % |
| Electrical data | |
| Operating voltage | 10...30 VDC |
| Residual ripple | ≤ 10 % U_{ss} |
| DC rated operational current | ≤ 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 breakage/Reverse polarity protection | yes / Complete |
| Output function | 3-wire, NO contact, PNP |
| Switching frequency | 0.5 kHz |
| Mechanical data | |
| Design | Threaded barrel, M18 x 1 |
| Dimensions | 77 mm |
| Housing material | Metal, CuZn, Chrome-plated |

Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

Technical data

| | |
|---------------------------------------|--|
| Terminal chamber cover material | plastic, Ultem |
| Terminal chamber housing material | plastic, PA12-GF30 |
| Active area material | Plastic, PA12-GF30 |
| Max. tightening torque of housing nut | 25 Nm |
| Electrical connection | Terminal chamber |
| Clamping ability | $\leq 2.5 \text{ mm}^2$ |
| Cable external diameter | 4.5...8 mm |
| Environmental conditions | |
| Ambient temperature | -25...+70 °C |
| Vibration resistance | 55 Hz (1 mm) |
| Shock resistance | 30 g (11 ms) |
| Protection class | IP67 |
| MTTF | 2283 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

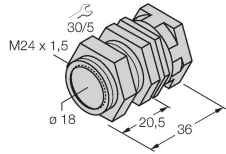


| | |
|------------------------|---------|
| Distance D | 2 x B |
| Distance W | 3 x Sn |
| Distance T | 3 x B |
| Distance S | 1.5 x B |
| Distance G | 6 x Sn |
| Diameter active area B | Ø 18 mm |

Accessories

QM-18

6945102



Quick-mount bracket with dead-stop; material: Chrome-plated brass. Male thread M24 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

BST-18B

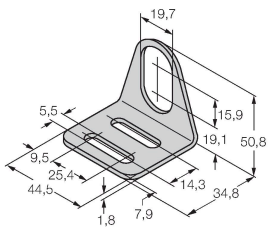
6947214



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

MW-18

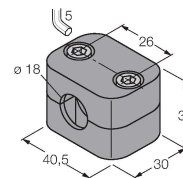
6945004



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

BSS-18

6901320



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