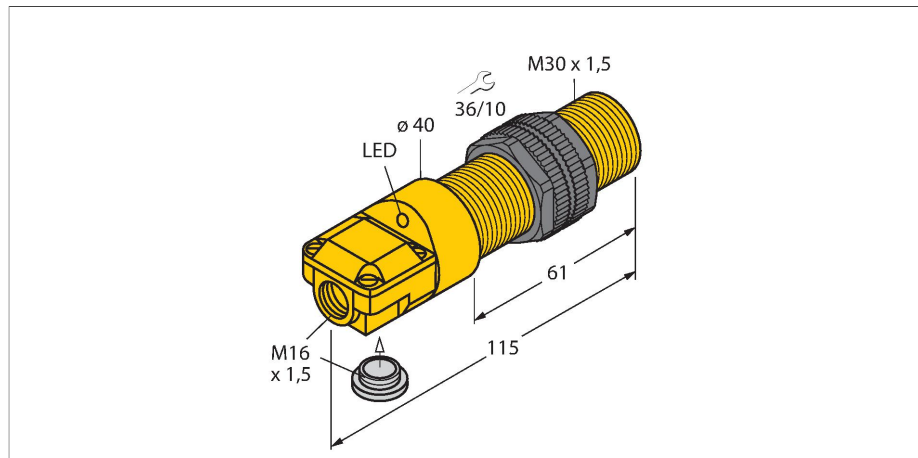


BI10-P30SR-AN6X

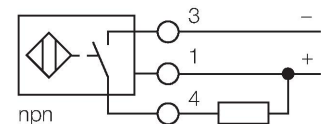
Inductive Sensor



Features

- 2 cable entries (axial, radial)
- Threaded barrel, M30 x 1.5
- Plastic, ABS
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- Terminal chamber

Wiring diagram



Technical data

Type	BI10-P30SR-AN6X
ID	16203
General data	
Rated switching distance	10 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, NPN
Switching frequency	0.5 kHz
Mechanical data	
Design	Threaded barrel, M30 x 1.5
Dimensions	115 mm
Housing material	Plastic, ABS

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

Active area material	Plastic, ABS
Max. tightening torque of housing nut	5 Nm
Electrical connection	Terminal chamber
Clamping ability	≤ 2.5 mm²
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, blanking plug

Mounting instructions

Mounting instructions/Description

The image contains three technical drawings of a cable gland assembly:

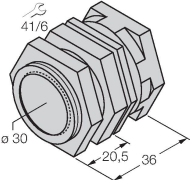
- Top drawing:** A side view of a cable gland mounted on a plate. Dimension **T** indicates the distance from the edge of the plate to the center of the gland.
- Middle drawing:** Two cable glands are shown, one mounted on a plate and one shown separately. Dimension **G** indicates the distance between the center of the mounted gland and the center of the separate gland.
- Bottom drawing:** A front view of two cable glands mounted on a plate. Dimension **D** is the distance between the centers of the two glands. Dimension **S** is the distance from the center of a gland to the edge of the plate. Dimension **W** is the total width of the mounting plate.

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 30 mm

Accessories

QM-30

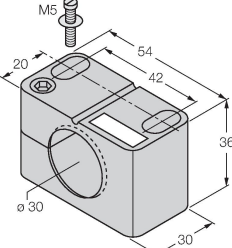
6945103



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

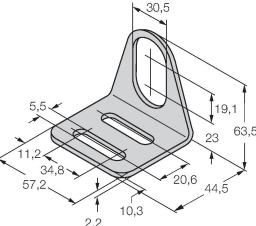
6947216



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

MW-30

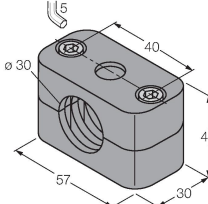
6945005



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