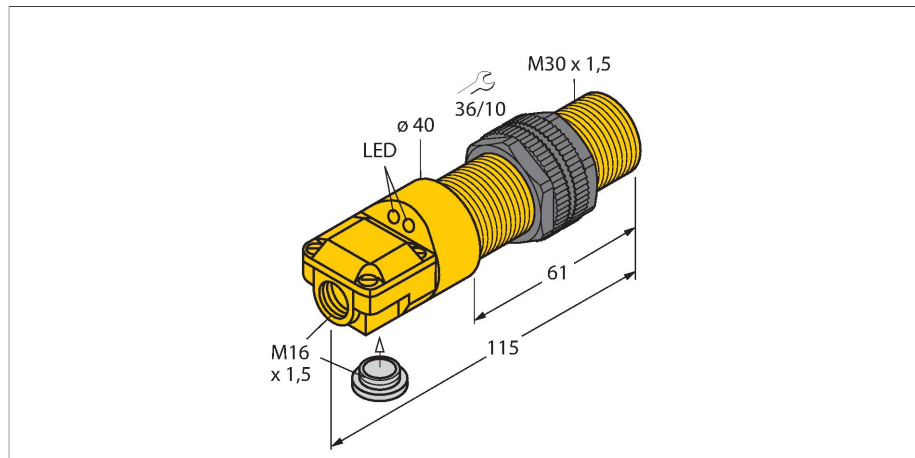


BI10-P30SR-VP4X2

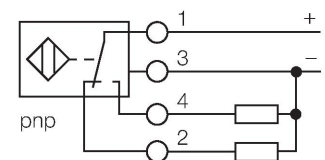
Inductive Sensor



Features

- 2 cable entries (axial, radial)
- Threaded barrel, M30 x 1.5
- Plastic, ABS
- DC 4-wire, 10...65 VDC
- Changeover contact, PNP output
- Terminal chamber

Wiring diagram



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

Type	BI10-P30SR-VP4X2
ID	15652
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...65 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	4-wire, Complementary contact, PNP
Switching frequency	0.5 kHz
Mechanical data	
Design	Threaded barrel, M30 x 1.5
Dimensions	115 mm
Housing material	Plastic, ABS

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
Power-on indication	LED, Green
Switching state	LED, Yellow
Included in delivery	cable gland, blanking plug

Mounting instructions

Mounting instructions/Description

The image contains three technical diagrams illustrating the mounting of a cable gland. The top diagram shows a side view of the gland with a dimension line labeled 'T' indicating the distance from the mounting surface to the center of the active area. The middle diagram shows a top view of the gland with a dimension line labeled 'G' indicating the distance between the mounting surface and the center of the active area. The bottom diagram shows a perspective view of the gland with dimension lines labeled 'D', 'S', and 'W'. 'D' is the distance from the mounting surface to the center of the active area, 'S' is the distance from the mounting surface to the center of the active area, and 'W' is the distance from the mounting surface to the center of the active area.

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

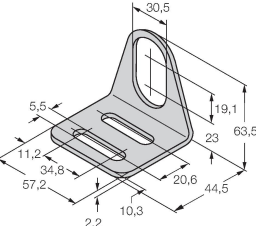
6947216



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