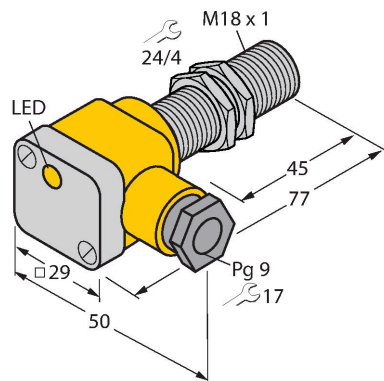


BI5-G18SK-AN6X

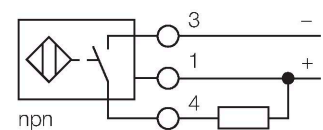
Inductive Sensor



Features

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

Wiring diagram



Technical data

Type	BI5-G18SK-AN6X
ID	46421
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 U_B	10...30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_o	≤ 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 break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, NPN
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	≤ 2.5 mm²
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

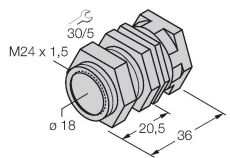
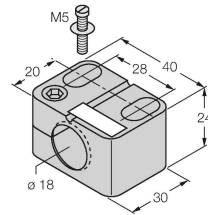
Mounting instructions

Mounting instructions/Description

The image contains three technical diagrams illustrating the mounting of a terminal chamber. The top diagram shows a side view of the chamber 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 chamber 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 terminal chamber mounted on a plate, with dimension lines labeled 'D', 'S', and 'W' indicating the distance from the mounting surface to the center of the active area, the distance between the mounting surface and the center of the active area, and the width of the mounting surface, respectively.

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
					
MW18	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
