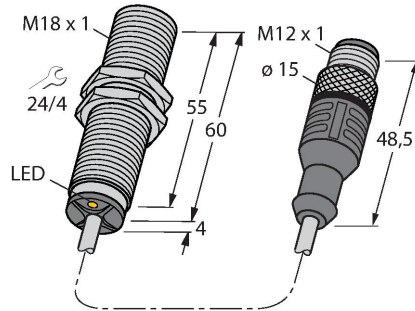


BI7-MT18E-AD4X-0.3-RS4.23T/S1589

Inductive Sensor – With Weldguard® coating

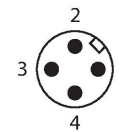
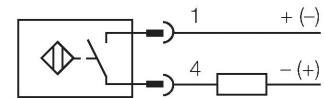
Features

- Threaded barrel, M18 x 1
- Long version
- Brass, PTFE-coated
- DC 2-wire, 10...65 VDC
- NO contact
- Cable with male end



Technical data

Type	BI7-MT18E-AD4X-0.3-RS4.23T/S1589
ID	4414589
Special version	S1589 Corresponds to: With weldguard coating
General data	
Rated switching distance	7 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
Hysteresis	1...15 %
Electrical data	
Operating voltage U_B	10...65 VDC
Ripple U_{rs}	≤ 10 % U_{Bmax}
DC rated operating current I_B	≤ 100 mA
Residual current	≤ 0.6 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_B	≤ 5 V
Wire break/reverse polarity protection	Complete
Output function	2-wire, NO contact, 2-wire
Smallest operating current	≥ 3 mA
Switching frequency	1 kHz



Functional principle

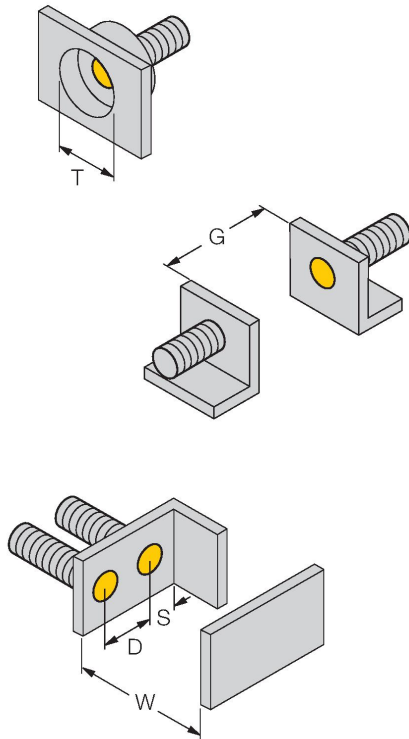
Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit.

Technical data

Mechanical data	
Design	Threaded barrel, M18 x 1
Dimensions	64 mm
Housing material	Metal, CuZn, PTFE-coated
Active area material	Plastic, PA12-GF30, PTFE-coated
End cap	Plastic, EPTR
Material coupling nut	CuZn, nickel-plated
Max. tightening torque of housing nut	15 Nm
Electrical connection	Cable with connector, M12 × 1
Cable quality	Ø 5.2 mm, LifYY, PVC, 0.3 m
Core cross-section	2 x 0.34 mm ²
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

Mounting instructions

Mounting instructions/Description



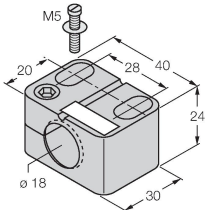
Distance D	2 x B
Distance W	3 x Sn
Distance T	3 x B
Distance S	1.5 x B
Distance G	6 x Sn
Diameter active area B	Ø 18 mm

Accessories

BST-18B

6947214

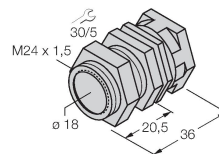
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6



QMT-18

6945104

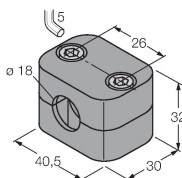
Quick-mount bracket with dead-stop; material: brass, PTFE-coated; Male thread M24 x 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.



BSS-18

6901320

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



QM-18

6945102

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

