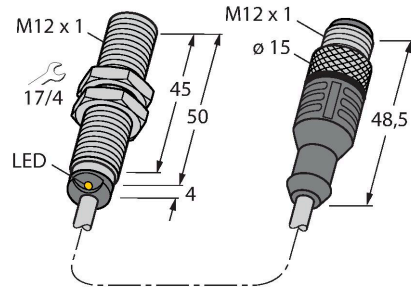


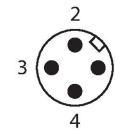
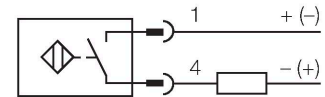
BI3-MT12-AD4X-0.5-RS4.23T/S1589

Inductive Sensor



Features

- Threaded barrel, M12 x 1
- Brass, PTFE-coated
- DC 2-wire, 10...65 VDC
- NO contact
- Cable with male end



Technical data

Type	BI3-MT12-AD4X-0.5-RS4.23T/S1589
ID	44050843
Special version	S1589 Corresponds to: With weldguard coating
General data	
Rated switching distance	3 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, 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

Mechanical data	
Design	Threaded barrel, M12 x 1
Dimensions	54 mm
Housing material	Metal, CuZn, PTFE-coated
Active area material	Plastic, PA12-GF30, PTFE-coated
End cap	Plastic, EPTR
Material coupling nut	metal, CuZn, nickel-plated
Max. tightening torque of housing nut	7 Nm
Electrical connection	Cable with connector, M12 × 1
Cable quality	Ø 5.2 mm, LifYY, PVC, 0.5 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

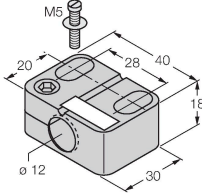
Mounting instructions

Mounting instructions/Description	
	Distance D
	24 mm
	Distance W
	9 mm
	Distance T
	36 mm
	Distance S
	18 mm
	Distance G
	18 mm
	Diameter active area B
	Ø 12 mm

Accessories

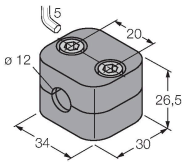
BST-12B	6947212
---------	---------

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



BSS-12	6901321
--------	---------

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



QMT-12	6945106
--------	---------

Quick-mount bracket with dead-stop; material: brass, PTFE-coated; Male thread M16 × 1. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

