BI2-MT12-Y0X-H1141
Inductive Sensor
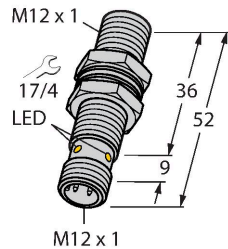


Technical data

Type	BI2-MT12-Y0X-H1141
ID	4010093
General data	
Rated switching distance	2 mm
Mounting conditions	Flush
Secured operating distance	≤ (0.81 × Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Hysteresis	1…10 %
Electrical data	
Output function	2-wire, NAMUR
Switching frequency	5 kHz
Voltage	Nom. 8.2 VDC
Non-actuated current consumption	≥ 2.1 mA
Actuated current consumption	≤ 1.2 mA
Mechanical data	
Design	Threaded barrel, M12 x 1
Dimensions	52 mm
Housing material	Metal, CuZn, PTFE-coated
Active area material	Plastic, PA12-GF30, PTFE-coated
Max. tightening torque of housing nut	7 Nm
Electrical connection	Connector, M12 × 1

Features

■ Threaded barrel, M12 x 1
■ Brass, PTFE-coated
■ DC 2-wire, nom. 8.2 VDC
■ Output acc. to EN 60947-5-6 (NAMUR)
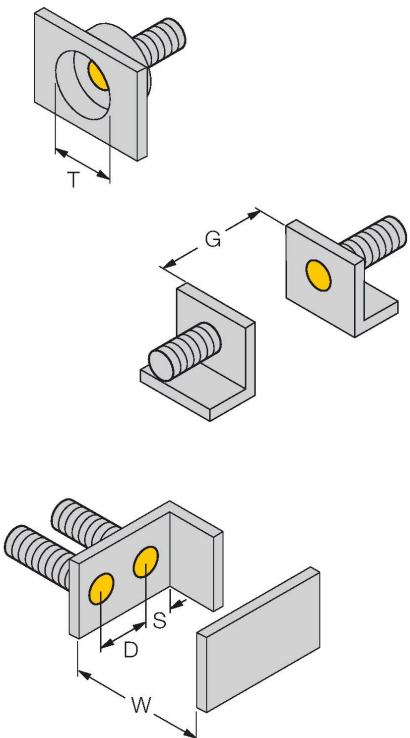■ M12 × 1 connector

Wiring diagram
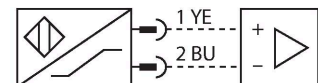
Functional principle

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.

BI2-MT12-Y0X-H1141| 02/21/2025 14-07 | technical changes reserved

Technical data

Environmental conditions

Ambient temperature	-25…+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	6198 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 12 mm

Accessories

BST-12B   6947212

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

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.

BSS-12   6901321

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