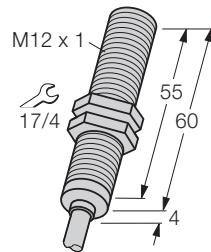
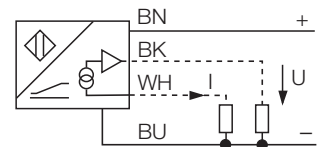


Inductive sensor with analogue output BI4-M12-LIU



- threaded barrel, M12 x 1
- Chrome-plated brass
- analog+
- extended sensing range
- 4-wire, 15...30 VDC
- analogue output
- 0...10 V and 0...20 mA
- cable connection

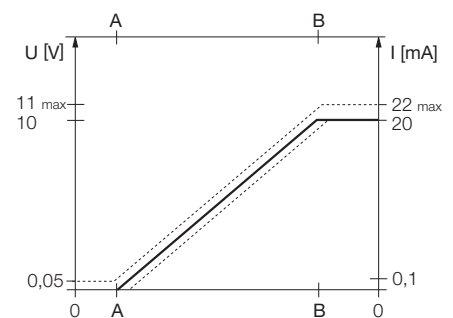
Wiring diagram



Functional principle

Simple control tasks can be accomplished with inductive TURCK sensors featuring an analogue output. They provide a current, voltage or frequency signal that is proportional to the target's distance. With TURCK's analogue sensors, this output signal is linear to the distance of the target over the entire sensing range.

Measuring range

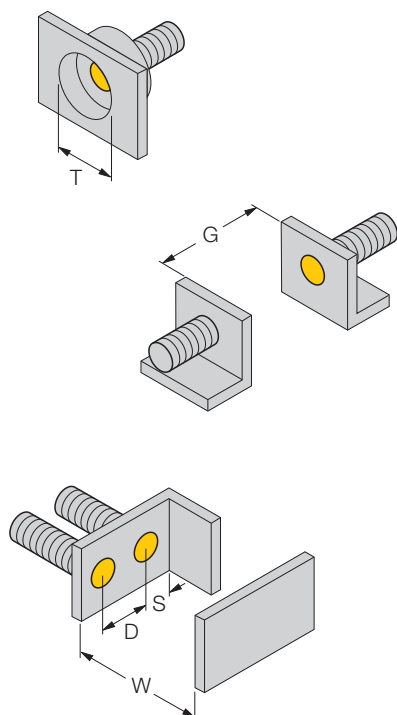


Type	BI4-M12-LIU
Ident-No.	1535532
Measuring range [A...B]	0.5... 3 mm
Mounting condition	flush
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Repeatability	≤ 1 % of measuring range [A - B] ≤ 0.5 %, after a warm-up time of 0.5 h
Reproducibility	≤ 25 μm ≤ 12.5 μm, after a warm-up time of 0.5 h
Linearity deviation	≤ 5 % of full scale
Temperature drift	≤ ± 0.06 % / K
Ambient temperature	-25...+ 70 °C
Operating voltage	15... 30 VDC
Residual ripple	≤ 10 % U _{ss}
No-load current I ₀	≤ 8 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes
Wire breakage / Reverse polarity protection	yes / complete
Output function	4-wire, Analog output
voltage output	0... 10 V
current output	0... 20 mA
Load resistance voltage output	≥ 4.7 kΩ
Load resistance current output	≤ 0.4 kΩ
Measuring sequence frequency	200 Hz
Output recovery time	≤ 12 ms
Housing	threaded barrel, M12 x 1
Dimensions	64 mm
Housing material	metal, CuZn, chrome-plated
Material active face	Plastic, PA12-GF30
End cap	plastic, EPTR
Tightening torque of housing nut	10 Nm
Electrical connection	cables
Cable quality	Ø 5.2, LifYY, PVC, 2 m
Cable cross section:	4 x 0.34mm ²
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Protection class	IP67

Inductive sensor with analogue output BI4-M12-LIU

Mounting instructions	minimum distances
Distance D	24 mm
Distance W	9 mm
Distance T	3 x B
Distance S	18 mm
Distance G	18 mm

Diameter of the active area B	Ø 12 mm
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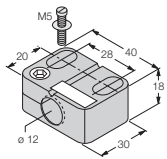
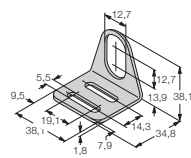


Inductive sensor with analogue output BI4-M12-LIU

TURCK

Industrial
Automation

Accessories

Type code	Ident-No.	Short text	Dimension drawing
QM-12	6945101	Quick-mount fixing clamp with dead-stop; material: Chrome-plated brass Male thread M16 x 1. Note: The switching distance of proximity switches can be reduced by the use of quick mounting brackets.	
BST-12B	6947212	Fixing clamp with dead-stop; material: PA6	
MW-12	6945003	Mounting bracket; material: Stainless steel A2 1.4301 (AISI 304)	
BSS-12	6901321	Fixing clamp; material: Polypropylene	
IM43-13-SR	7540041	Limit value monitor; 1-port; input 0/4...20 mA or 0/2...10 V; supply of 2- or 3-wire transmitters/sensors; limit value adjustment via teach button; three relay outputs with one NO contact each; removable terminal blocks; 27 mm wide; universal voltage supply 20...250 VUC; further limit value monitors are described in our "Interface Technology" catalog.	