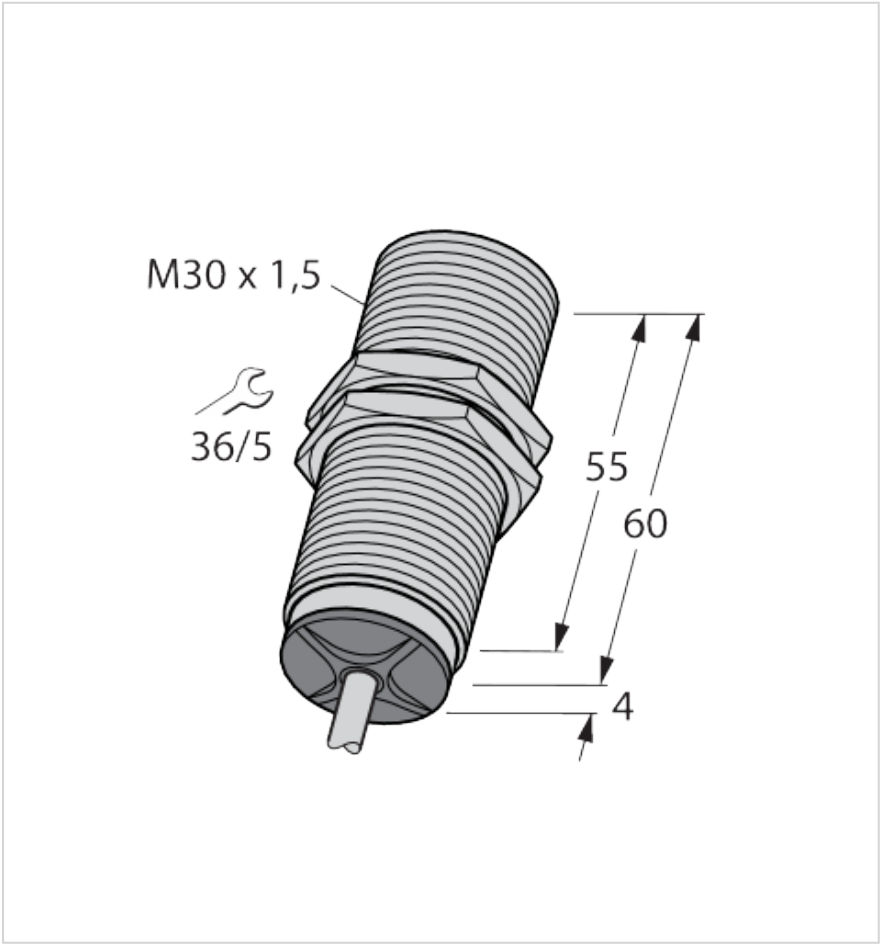
BI10-M30-LIU

Inductive Sensor
With Analog Output



Type designation	BI10-M30-LIU
Ident-No.	15355

Technical data

General data	
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Detection area/measuring range	
Secured operating distance	≤ (0.81 × Sn) mm
Measuring range	3...8 mm
Power supply	
Operating voltage U_B	15...30 VDC

Features

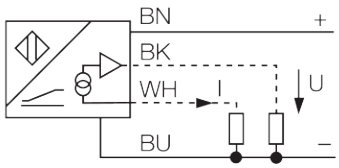
- M30 × 1.5 threaded barrel
- Chrome-plated brass
- 4-wire, 15…30 VDC
- Analog output
- 0…10 V and 0…20 mA
- Cable connection

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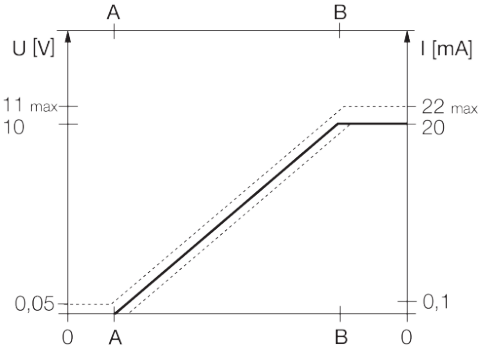
Technical data

Electrical data	
No-load current	8 mA
Output function	4-wire, Analog output
Short-circuit protection	yes
Wire break/reverse polarity protection	no/Complete
Isolation test voltage	≤ 0,5 kV
Measuring sequence frequency	140 Hz
Residual ripple	≤ 10 % U_{SS}
Outputs	
Current output	0...20 mA
Voltage output	0...10 V
Load resistance current output	≤0,4 kΩ
Load resistance voltage output	≥4,7 kΩ
Accuracy/deviation	
Linearity deviation	3 %
Repeatability	≤1 % of measuring range |A - B|
	0.5 %, after warm-up 0.5 h
Reproducibility	≤ 50 µm
	≤25 µm, nach 0,5 h Aufwärmzeit
Temperature drift	≤ ±0,06 %/K
Mechanical data	
Design	Threaded barrel, M30 x 1.5
Construction type designation	M30
	⌀ 30 mm
Housing material	Metal, CuZn, Chrome-plated
Active area material	Plastic, PA12-GF30
End cap	Plastic, EPTR
Max. tightening torque of housing nut	75 Nm
Electrical connection	Cable
Pressure resistant	no
Thread length	55 mm
Thread size	M30 × 1.5
Mounting conditions	Flush
Cable	
Cable length	2 m
Cable jacket	Gray
Core cross-section	4 x 0,34 mm²

Wiring Diagram



Measuring Range



Functional principle

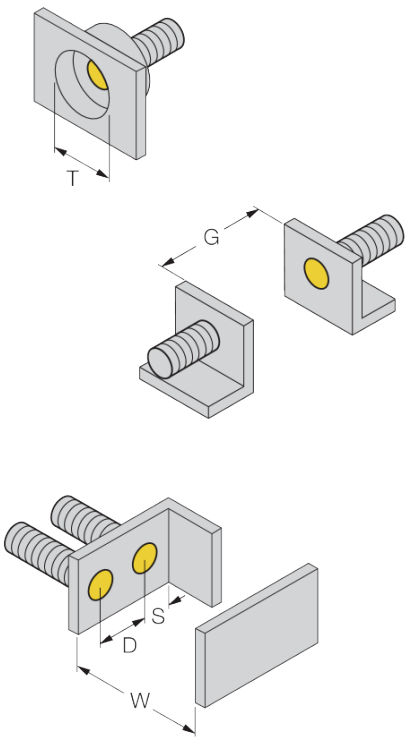
Inductive sensors with analog output from Turck accomplish simple control tasks. They provide a distance-proportional current, voltage or frequency signal. The output signal is linear to the distance of the target over the entire sensing range.

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Technical data

Cable type	LifYY
External Diameter of the Cable	Ø 5,2 mm
Cable Jacket Material	PVC
Ambient conditions	
Ambient temperature	-25...+70 °C
Pollution degree	3
Shock resistance	30 g (11 ms)
Vibration resistance	55 Hz (1 mm)
Protection class	IP67
Tests/approvals	
MTTF	751 Years acc. to SN 29500 (Ed. 99) 40 °C

Assembly instructions

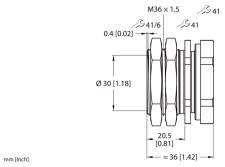


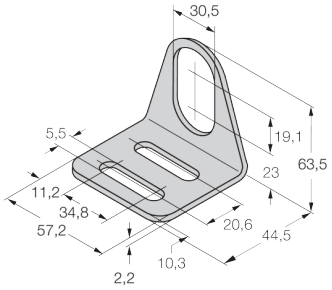
Distance D: 60 mm
Distance W: 27 mm
Distance T: 3 x B
Distance S: 45 mm
Distance G: 54 mm
Diameter active area B: 30 mm

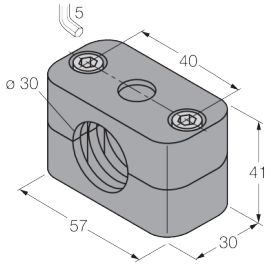
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Mounting accessories

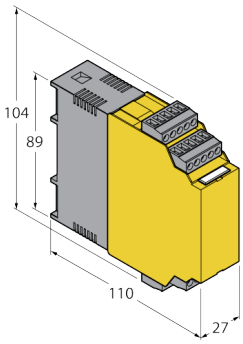
BST-30B	6947216
	Mounting bracket for threaded barrel sensors, with dead-stop; material: PA6

QM-30	6945103
	Quick-mount bracket with dead-stop; material: chrome-plated brass. Male thread M36 × 1.5. Note: The switching distance of the proximity switches may change when using quick-mount brackets.

MW30	6945005
	Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

BSS-30	6901319
	Mounting bracket for smooth and threaded barrel sensors; material: Polypropylene

Functional accessories

IM43-13-SR	7540041
	Trip amplifier; 1-channel; input 0/4…20 mA or 0/2…10 V; power supply for 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 operating voltage 20… 250 VUC; additional trip amplifiers available in our "Interface Technology" catalog

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