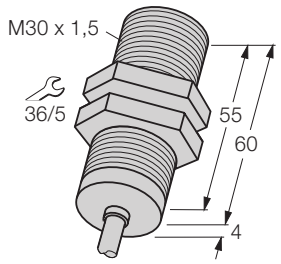
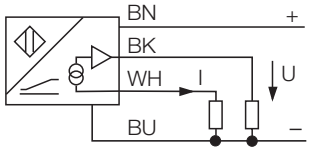
Inductive sensor
with analogue output
Bi10-M30-LiU

Industrial Automation



- **threaded barrel, M30 x 1.5**
- **Chrome-plated brass**
- **4-wire, 15…30 VDC**
- **analogue output**
- **0…10 V and 0…20 mA**
- **cable connection**

Wiring diagram

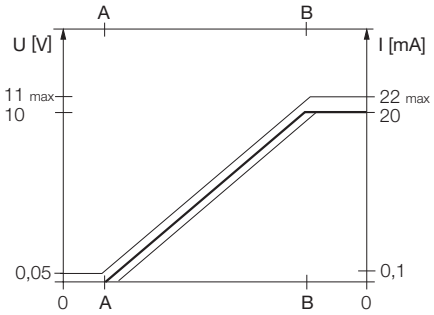


Type	Bi10-M30-LiU
Ident-No.	15355
Measuring range [A…B]	3… 8 mm
Mounting condition	flush
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Repeatability	1 % of measuring range |A - B| 0.5 %, after a warm-up time of 0.5 h
Reproducibility	50µm 25µm, after a warm-up time of 0.5 h
Linearity deviation	3% of full scale
Temperature drift	± 0.06 %/K
Ambient temperature	-25…+ 70 °C
Operating voltage	15… 30VDC
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, analogue 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	140 Hz
Output recovery time	12 ms
Housing	threaded barrel, M30 x 1.5
Dimensions	64 mm
Housing material	metal, CuZn, chrome-plated
Material active face	plastic, PA12-GF30
End cap	plastic, EPTR
Tightening torque of housing nut	75 Nm
Connection	cable
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)
Degree of protection	IP67

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



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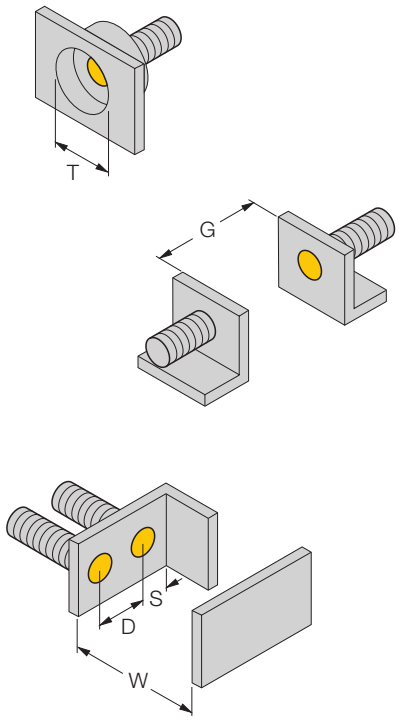
Mounting instructions	minimum distances
Distance D	60 mm
Distance W	27 mm
Distance T	3 x B
Distance S	45 mm
Distance G	54 mm

Diameter of the active area B	Ø 30 mm



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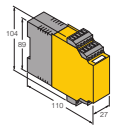
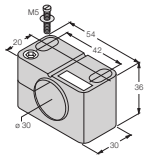
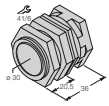
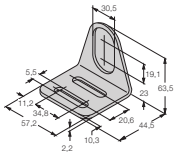
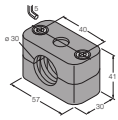
Accessories

Type code	Ident-No.	Short text	Dimension drawing
IM43-13-SR	7540041	limit value monitor; single channel; 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 normally open contact each; removable terminal blocks; 27 mm wide; universal voltage supply 20…250 VUC; further limit value monitors are described in our "Interface Technology" catalogue.	
BST-30B	6947216	fixing clamp with dead-stop; material: PA6	
QM-30	6945103	quick-mount fixing clamp with dead-stop; material: chrome-plated brass male thread M36 x 1.5. Note: The switching distance of proximity switches can be reduced by the use of quick mounting brackets.	
MW-30	6945005	mounting bracket; material: stainless steel A2 1.4301 (AISI 304)	
BSS-30	6901319	fixing clamp; material: polypropylene	

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