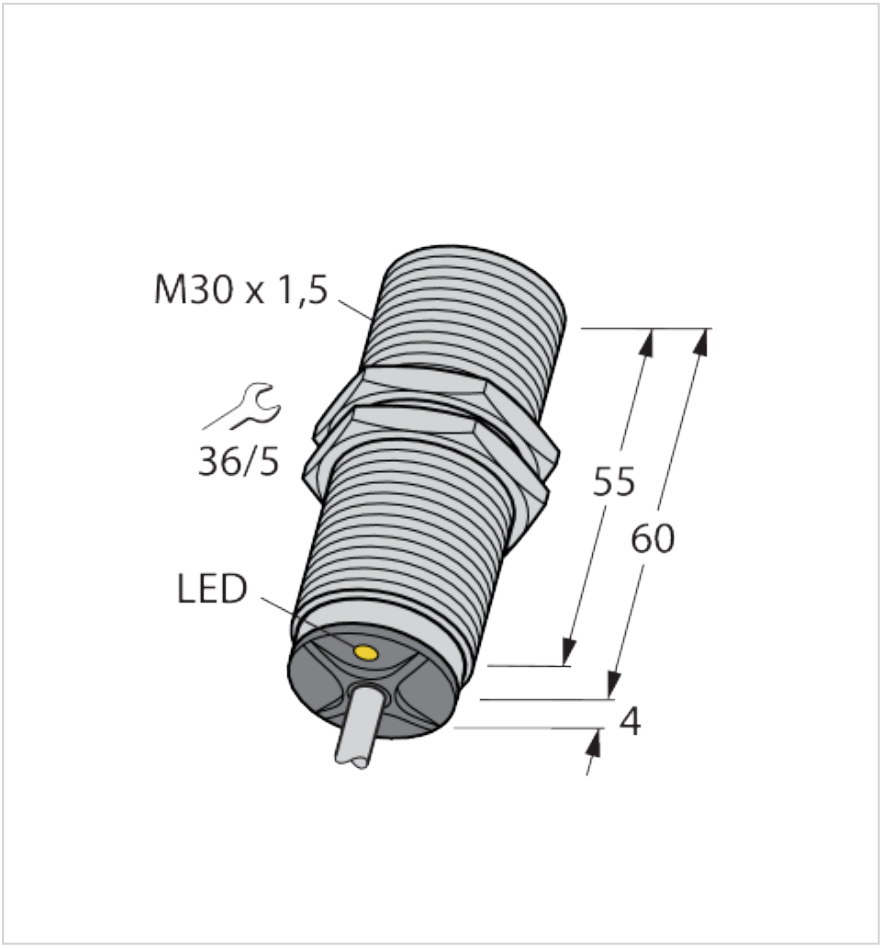
BI10-M30-ADZ3X

Inductive Sensor



Type designation	BI10-M30-ADZ3X
Ident-No.	100018036

Technical data

General data	
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Utilization category AC	140
Detection area/measuring range	
Rated switching distance	10 mm
Secured operating distance	≤ (0.81 × Sn) mm
Power supply	
Operating voltage U_B	20...250 VAC

Features

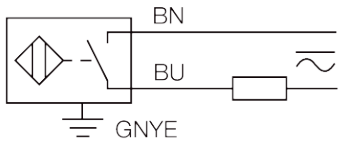
- M30 × 1.5 threaded tube
- Chrome-plated brass
- AC 2-wire, 20…250 VAC
- DC 2-wire, 10…300 VDC
- Short-circuit proof
- NO contact
- Cable connection

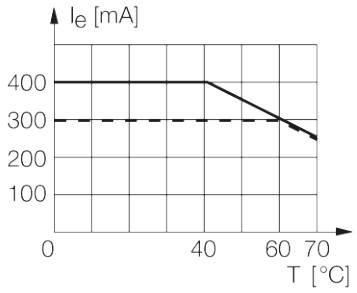
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Technical data

Operating voltage U_B	10...300 VDC
Frequency	50...60 Hz
Voltage drop at I_e	≤ 6 V
Electrical data	
AC rated operational current	≤ 400 mA
Output function	2-wire, NO contact, 2-wire
Short-circuit protection	yes/Latching
Wire break/reverse polarity protection	yes/Complete
DC rated operational current	≤ 300 mA
Isolation test voltage	≤ 1,5 kV
Residual current	≤ 1,7 mA
Smallest operating current	≥ 3 mA
Surge current	≤ 8 A (≤ 10 ms max. 5 Hz)
Switching frequency	0,02 kHz
Accuracy/deviation	
Hysteresis	3 % v. E...15 % v. E.
Temperature drift	10 %
Repeat accuracy	≤ 2 % v. E.
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
Core cross-section	3 x 0,5 mm²
Cable type	LifYY
External Diameter of the Cable	Ø 5,2 mm
Cable Jacket Material	PVC

Wiring Diagram





Functional principle

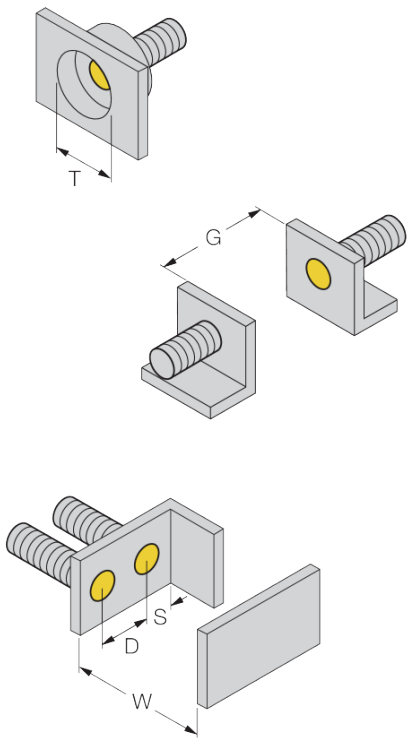
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

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Technical data

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	2283 Years acc. to SN 29500 (Ed. 99) 40 °C
Displays/controls	
Switching state	LED, Red

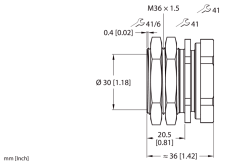
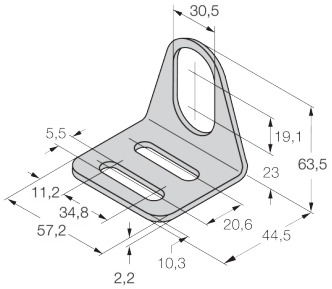
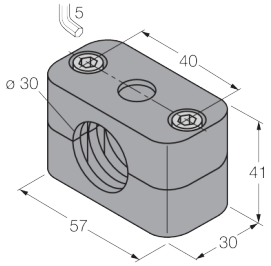
Assembly instructions



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: 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

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