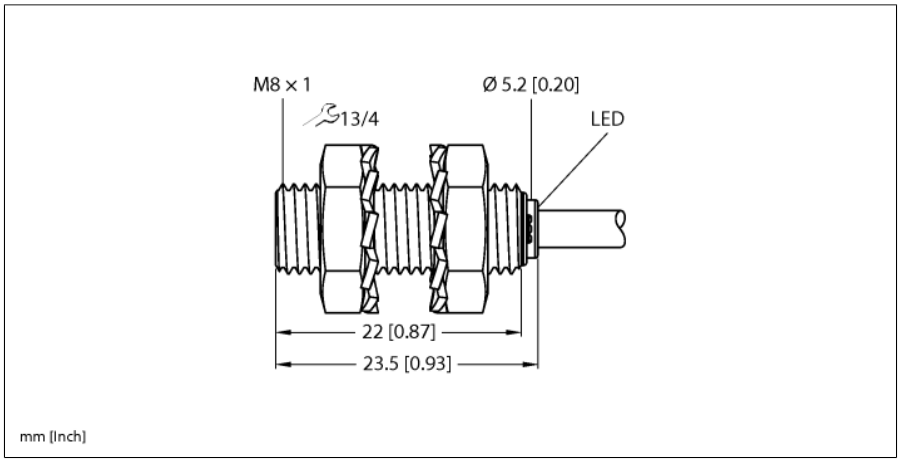
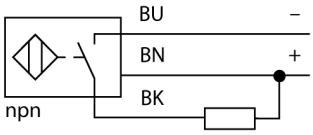
Inductive Sensor
With Extended Temperature Range
BI2-EG08K-AN6X/S97



- M8 × 1 threaded tube
- Stainless steel, 1.4305 (AISI 303)
- Temperatures up to -40 °C
- DC 3-wire, 10…30 VDC
- NO contact, NPN output
- Cable connection

Type	BI2-EG08K-AN6X/S97
ID	4669427
General data	
Rated switching distance Sn	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
Temperature drift	≤ ±10 %
	≤ ± 20 %, ≤ -25 °C
Hysteresis	20 %
Electrical data	
Operating voltage	10…30 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 150 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes/ Cyclic
Voltage drop at I_e	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NO contact, NPN
Switching frequency	3 kHz
Mechanical data	
Design	Threaded barrel, M8 x 1
Dimensions	23.5 mm
Housing material	Stainless steel, 1.4305 (AISI 303)
Active area material	Plastic, PA6.6
End cap	Plastic, PP
Max. tightening torque of housing nut	5 Nm
Electrical connection	Cable
Cable quality	Ø 3.3mm, Gray, LifY-11Y, PUR, 2 m
Core cross-section	3 x 0.14 mm²

Wiring Diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit.

Special versions are available for ambient temperatures between -60°C and +250°C.

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Environmental conditions	
Ambient temperature	-40…+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C

Switching state	LED, Yellow

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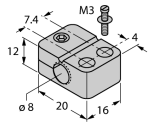
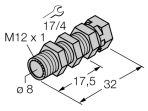
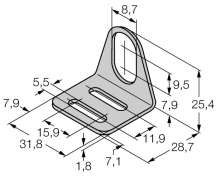
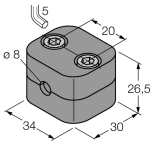
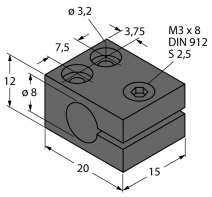
Accessories

Type code	Ident-No.		Dimension drawing
BST-08B	6947210	Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6	
QM-08	6945100	Quick-mount bracket with dead-stop, chrome-plated brass, male thread M12 x 1. Note: The switching distance of proximity switches may be reduced through the use of quick-mount brackets.	
MW-08	6945008	Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)	
BSS-08	6901322	Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene	
MBS80	69479	Mounting clamp for smooth barrel sensors; mounting block material: Anodized aluminum	

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