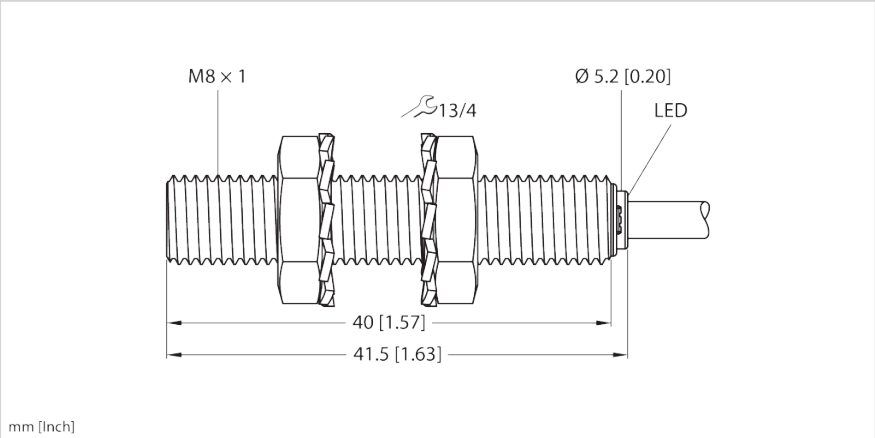
BI2-EG08-RN6X

Inductive Sensor
With Increased Switching Distance



Type designation	BI2-EG08-RN6X
Ident-No.	4602517

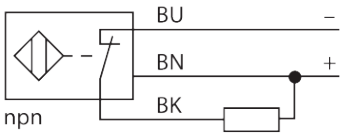
Technical data

General data	
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Special features	Sn +
Detection area/measuring range	
Rated switching distance	2 mm
Secured operating distance	≤ (0.81 × Sn) mm
Power supply	
Operating voltage U_B	10...30 VDC
Voltage drop at I_e	≤ 1,8 V
Electrical data	
No-load current	15 mA
Output function	3-wire, NO contact, NPN
Short-circuit protection	yes/Cyclic
Wire break/reverse polarity protection	yes/Complete
DC rated operational current	≤ 150 mA
Isolation test voltage	≤ 0,5 kV
Residual current	≤ 0,1 mA
Residual ripple	≤ 10 % U_{ss}

Features

- M8 × 1 threaded tube
- Stainless steel, 1.4305 (AISI 303)
- Large sensing range
- DC 3-wire, 10…30 VDC
- NC contact, NPN output
- Cable connection

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

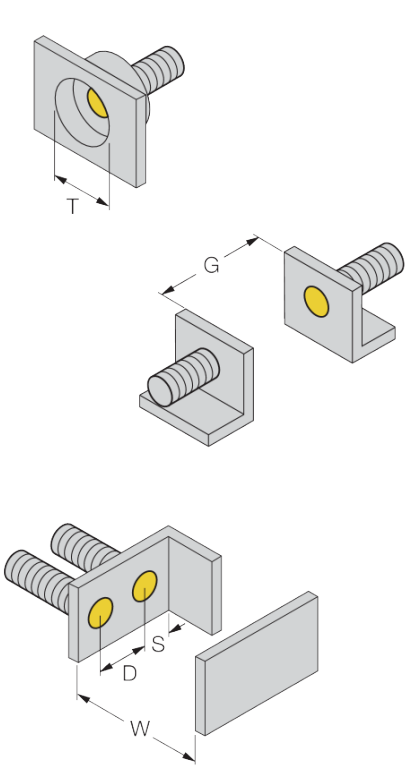
Switching frequency	3 kHz
Accuracy/deviation	
Hysteresis	20 % v. E.
Temperature drift	10 %
Repeat accuracy	≤ 2 % v. E.
Mechanical data	
Design	Threaded barrel, M8 x 1
Construction type designation	EG08
	⌀ 8 mm
Housing material	Stainless steel, 1.4305 (AISI 303)
Active area material	Plastic, PA6.6
End cap	Plastic, PP
Max. tightening torque of housing nut	5 Nm
Electrical connection	Cable
Pressure resistant	no
Thread length	40 mm
Thread size	M8 × 1
Mounting conditions	Flush
Cable	
Cable length	2 m
Cable jacket	Gray
Core cross-section	3 x 0,14 mm²
Cable type	LifY-11Y
External Diameter of the Cable	Ø 3,3 mm
Cable Jacket Material	PUR
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, Yellow
Other properties	

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Technical data

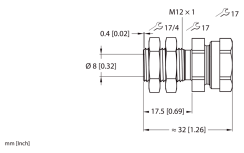
RoHs compatibility	yes

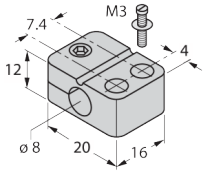
Assembly instructions



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: 8 mm

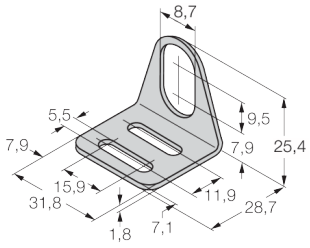
Mounting accessories

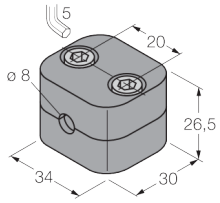
QM-08	6945100
	Quick-mount bracket with dead-stop; material: chrome-plated brass. Male thread M12 × 1. Note: The switching distance of the proximity switches may reduce when using quick-mount brackets.

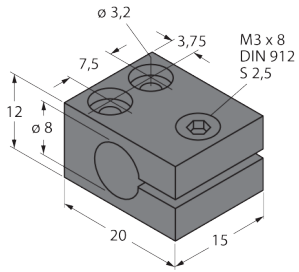
BST-08B	6947210
	Mounting bracket for threaded barrel sensors, with dead-stop; material: PA6

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Mounting accessories

MW08	6945008
	Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

BSS-08	6901322
	Mounting bracket for smooth and threaded barrel sensors; material: Polypropylene

MBS80	69479
	Mounting bracket for smooth barrel sensors; mounting block material: Anodized aluminum

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