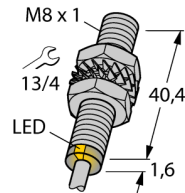


Inductive sensor BI1,5-EG08-AP6X

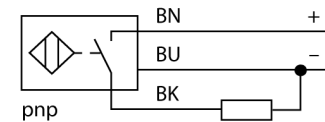
TURCK

Industrial
Automation



- Threaded barrel, M8 x 1
- Stainless steel, 1.4427 SO
- 3-wire DC, 10...30 VDC
- NO contact, PNP 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.

We offer special versions for temperatures of -60 °C up to +250 °C.

Type code	BI1,5-EG08-AP6X
Ident no.	4602240
Rated operating distance Sn	1.5 mm
Mounting condition	flush
Assured sensing range	≤ (0,81 x Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	≤ 2 % of full scale
Temperature drift	10 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
Operating voltage	10...30VDC
Residual ripple	≤ 10 % U _{ss}
DC rated operational current	≤ 150 mA
No-load current I ₀	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes/ cyclic
Voltage drop at I ₀	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Switching frequency	3 kHz
Design	threaded barrel, M8 x 1
Dimensions	42 mm
Housing material	stainless steel, 1.4427 SO
Material active area	Plastic, PA
End cap	Plastic, PA12-GF30
Max. tightening torque housing nut	10 Nm
Connection	cable
Cable quality	4 mm, LiYY-11Y, PUR, 2 m
Cable cross section	3 x 0.25 mm ²
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

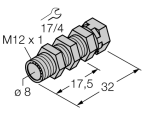
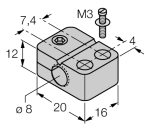
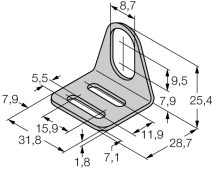
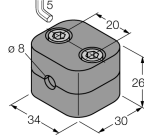
**Inductive sensor
BI1,5-EG08-AP6X**

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 of the active area B \varnothing 8 mm



Accessories

Type code	Ident no.	Description	Dimension drawing
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.	 <p>Technical drawing of a quick-mount bracket (QM-08) showing dimensions: M12 x 1 thread, 17.4 mm length, 17.5 mm diameter, and 32 mm total length.</p>
BST-08B	6947210	Fixing clamp for threaded barrel devices, with dead-stop; material: PA6	 <p>Technical drawing of a fixing clamp (BST-08B) showing dimensions: 7.4 mm height, 12 mm width, 20 mm length, 16 mm depth, and M3 thread.</p>
MW-08	6945008	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	 <p>Technical drawing of a mounting bracket (MW-08) showing dimensions: 8.7 mm height, 5.5 mm width, 7.9 mm depth, 15.9 mm length, 31.8 mm total length, 1.8 mm thickness, 7.1 mm width, 11.9 mm depth, 28.7 mm length, 7.9 mm depth, 9.5 mm height, and 25.4 mm total height.</p>
BSS-08	6901322	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	 <p>Technical drawing of a mounting bracket (BSS-08) showing dimensions: 15 mm height, 20 mm width, 26.5 mm depth, 34 mm length, and 30 mm width.</p>