

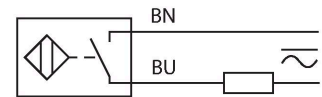
BI2-EG08-AZ14X

Inductive Sensor

Features

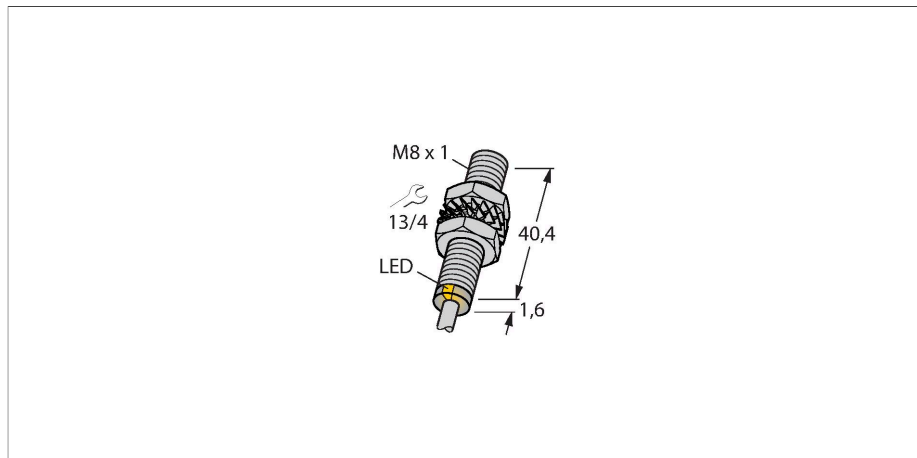
- Threaded barrel, M8 x 1
- Stainless steel, 1.4427 SO
- AC 2-wire, 20...132 VAC
- DC 2-wire, 10...140 VDC
- NO contact
- Cable connection

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.



Technical data

Type	BI2-EG08-AZ14X
ID	4100001
General data	
Rated switching distance	2 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	$\leq \pm 10$ %
Hysteresis	1...15 %
Electrical data	
Operating voltage	20...132 VAC
Operating voltage	10...140 VDC
AC rated operational current	≤ 100 mA
DC rated operational current	≤ 100 mA
Frequency	$\geq 50 \dots \leq 60$ Hz
Residual current	≤ 0.6 mA
Isolation test voltage	≤ 1.5 kV
Surge current	≤ 0.2 A (...10 ms; max. 0.2 A)
Voltage drop at I_o	≤ 6 V
Output function	2-wire, NO contact, 2-wire
Smallest operating current	≥ 3 mA
Switching frequency	0.02 kHz
Mechanical data	
Design	Threaded barrel, M8 x 1
Dimensions	42 mm

Technical data

Housing material	Stainless steel, 1.4427 SO
Active area material	Plastic, PA12-GF30
End cap	Plastic, PA12-GF30
Max. tightening torque of housing nut	5 Nm
Electrical connection	Cable
Cable quality	Ø 5.2 mm, Gray, LifYY-11Y, PUR, 2 m
Core cross-section	2 x 0.34 mm ²
Environmental conditions	
Ambient temperature	-25...+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

Mounting instructions

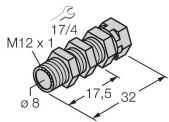
Mounting instructions/Description



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	Ø 8 mm

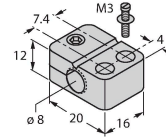
Accessories

QM-08 **6945100**



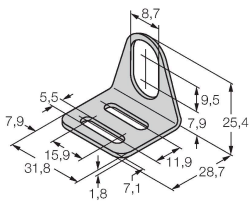
Quick-mount bracket with dead-stop, chrome-plated brass, male thread M12 x 1. Note: The switching distance of proximity switches may be reduced through the use of quick-mount brackets.

BST-08B **6947210**



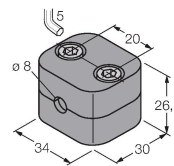
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

MW-08 **6945008**



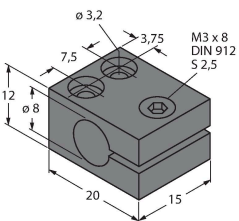
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

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