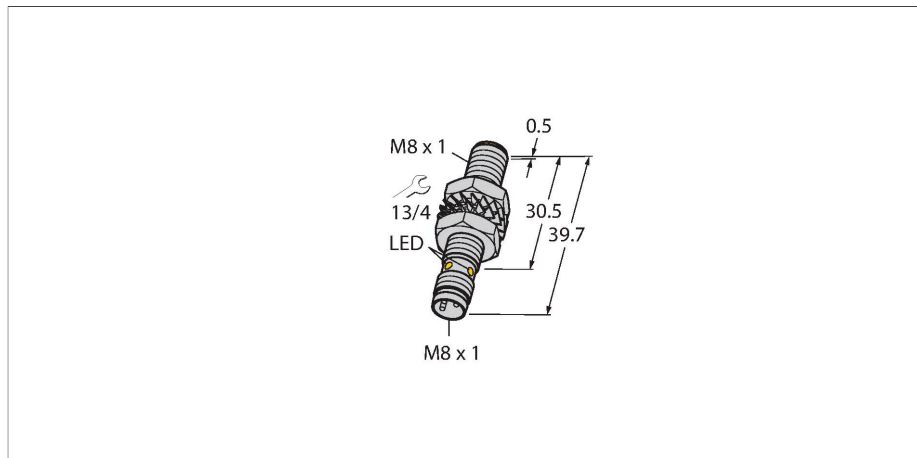


BI2-M08-AP6X-V1131

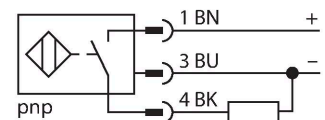
Inductive Sensor – With Increased Switching Distance



Features

- Threaded barrel, M8 x 1
- Nickel-plated brass
- Large sensing range
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M8 x 1 male connector

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-M08-AP6X-V1131
ID	4602903
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
Hysteresis	3...15 %
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	≤ 10 % U_{ss}
DC rated operational current	≤ 150 mA
No-load current	15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at I_o	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Switching frequency	2.8 kHz
Mechanical data	
Design	Threaded barrel, M8 x 1
Dimensions	39.7 mm
Housing material	Metal, CuZn, Nickel Plated
Active area material	Plastic, PP-GF20

Technical data

Max. tightening torque of housing nut	7 Nm
Electrical connection	Connector, M8 × 1
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

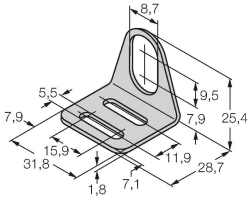
Mounting instructions

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

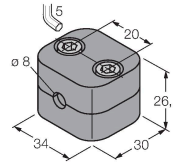
MW-08 6945008

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



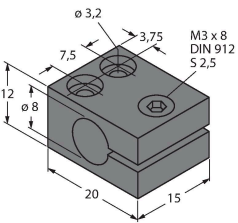
BSS-08 6901322

Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene



MBS80 69479

Mounting clamp for smooth barrel sensors; mounting block material: Anodized aluminum



Accessories

Dimension drawing	Type	ID	
	PKG3M-2/TEL	6625058	Connection cable, M8 female connector, straight, 3-pin, cable length: 2 m, jacket material: PVC, black; cULus approval



Connection cable, M8 female connector, straight, 3-pin, cable length: 2 m, jacket material: PVC, black; cULus approval