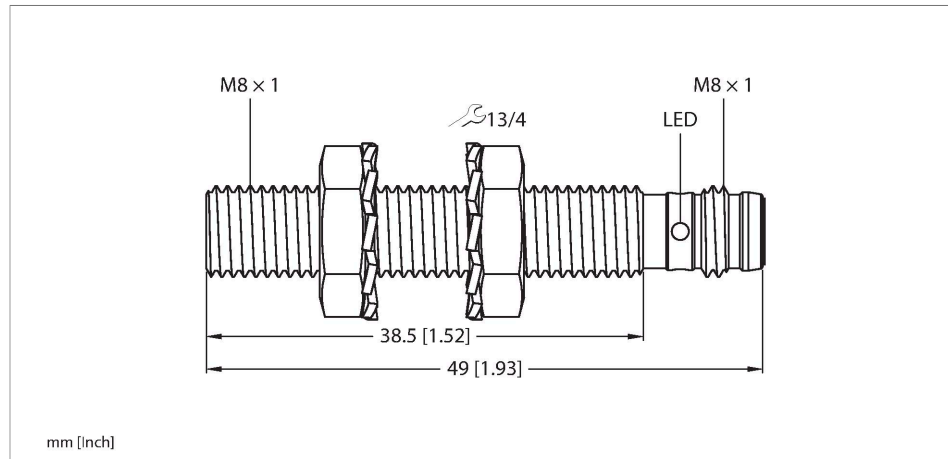


BI2-EG08-AP6X-V1131

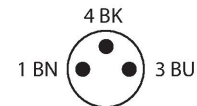
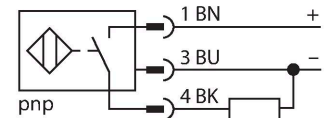
Inductive Sensor – With Increased Switching Distance



Features

- M8 × 1 threaded barrel
- Stainless steel, 1.4305 (AISI 303)
- Large sensing range
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M8 x 1 male connector

Wiring diagram



Technical data

Type	BI2-EG08-AP6X-V1131
Ident. no.	4602050
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	20 %
Ambient temperature	-25...+70 °C
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	3 kHz
Design	Threaded barrel, M8 × 1
Dimensions	49 mm

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

Housing material	Stainless steel, 1.4305 (AISI 303)
Active area material	Plastic, PA6.6
Max. tightening torque of housing nut	5 Nm
Electrical connection	Connector, M8 × 1
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

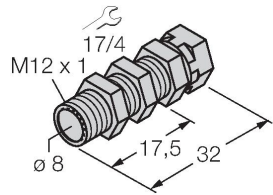
Mounting instructions/Description

The image contains three technical diagrams illustrating the mounting of a device. The top diagram shows a side view of a square mounting plate with a central circular hole and a threaded rod passing through it. A dimension line labeled 'T' indicates the thickness of the plate. The middle diagram shows two such mounting plates being positioned on a base. A dimension line labeled 'G' indicates the distance between the centers of the two plates. The bottom diagram shows a top-down view of the mounting plate. It features two yellow circular active areas. Dimension lines indicate 'D' as the distance between the centers of these active areas, 'S' as the distance from the center of an active area to the edge of the plate, and 'W' as the total width of the plate.

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

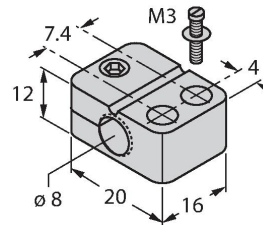
Accessories

QM-08 6945100



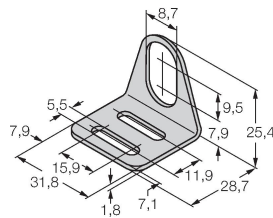
Quick-mount bracket with dead-stop, chrome-plated brass, male thread M12 x 1. Note: The switching distance of proximity switches may be reduced through the use of quick-mount brackets.

BST-08B 6947210



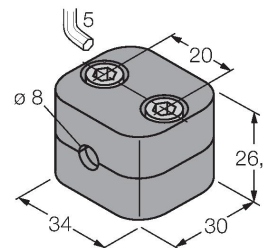
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6

MW-08 6945008



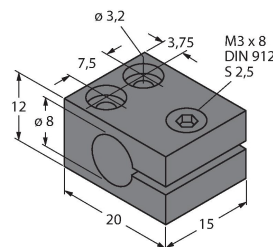
Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)

BSS-08 6901322



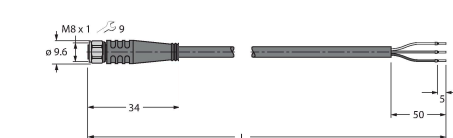
Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene

MBS80 69479



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

Wiring accessories

Dimension drawing	Type	Ident. no.	
	PKGV3M-2/TEL	6625385	Connection cable, female M8, straight, 3-pin, stainless steel coupling nut, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com