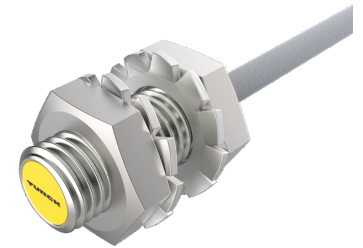
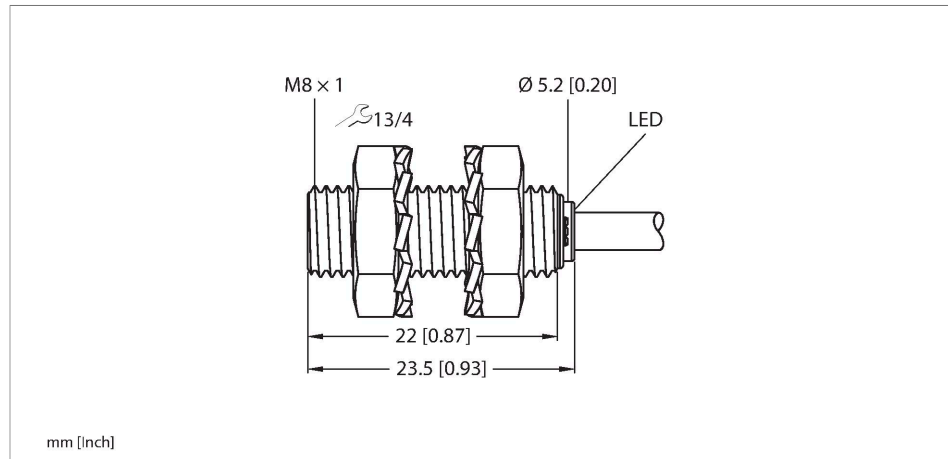


# BI2-EG08K-AP6X/S1589 Inductive Sensor – With Weldguard® coating



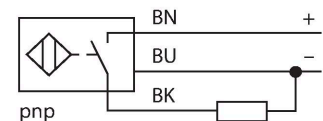
## Technical data

Type	BI2-EG08K-AP6X/S1589
ID	46694102
Special version	S1589 Corresponds to: With weldguard coating
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	$\leq 2 \%$ of full scale
Hysteresis	20 %
Electrical data	
Operating voltage $U_B$	10...30 VDC
Ripple $U_{rs}$	$\leq 10 \%$ $U_{Bmax}$
DC rated operating current $I_B$	$\leq 150$ mA
No-load current	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at $I_B$	$\leq 1.8$ V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, PNP
Switching frequency	3 kHz

## Features

- M8 × 1 threaded tube
- Stainless steel, 1.4305 (AISI 303)
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

## Wiring diagram



## Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit.

## Technical data

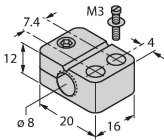
Mechanical data	
Design	Threaded barrel, M8 x 1
Dimensions	23.5 mm
Housing material	Stainless steel, 1.4305 (AISI 303)
Active area material	Plastic, PA6.6
End cap	Plastic, PP
Max. tightening torque of housing nut	5 Nm
Electrical connection	Cable
Cable quality	Ø 3.3 mm, Gray, LifY-11Y, PUR, 2 m
Core cross-section	3 x 0.14 mm <sup>2</sup>
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

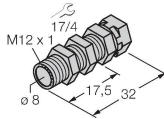
Mounting instructions/Description	
	Distance D
	2 x B
	Distance W
	3 x Sn
	Distance T
	3 x B
	Distance S
	1.5 x B
	Distance G
	6 x Sn
	Diameter active area B
	Ø 8 mm

Accessories

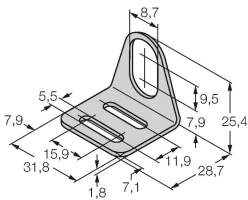
BST-08B	6947210
Mounting clamp for threaded barrel sensors, with dead-stop; material: PA6	



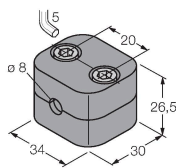
QM-08	6945100
Quick-mount bracket with dead-stop, chrome-plated brass, male thread M12 x 1. Note: The switching distance of proximity switches may be reduced through the use of quick-mount brackets.	



MW08	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

