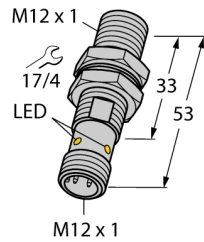
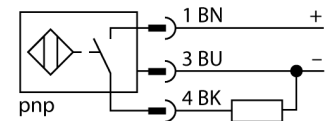


# Inductive Sensor Stainless Steel Front BI2-EG12F-AP6X-H1141/S1589



- Threaded barrel, M12 x 1
- Stainless steel, 1.4305
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

### Wiring Diagram



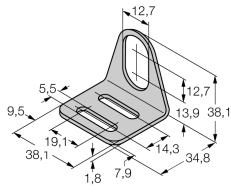
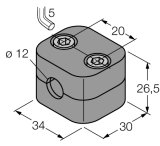
### Functional principle

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.

Type	BI2-EG12F-AP6X-H1141/S1589
ID	4614696
Special version	S1589 Corresponds to: With weldguard coating
<b>General data</b>	
Rated switching distance $S_n$	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	$\leq 10\%$ of full scale
Temperature drift	$\leq \pm 20\%$
Hysteresis	3...15 %
<b>Electrical data</b>	
Operating voltage $U_s$	10...30 VDC
Ripple $U_{s,r}$	$\leq 10\% U_{s,max}$
DC rated operating current $I_s$	$\leq 200$ mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at $I_s$	$\leq 2$ V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, PNP
Switching frequency	0.1 kHz
<b>Mechanical data</b>	
Design	Threaded barrel, M12 x 1
Dimensions	53 mm
Housing material	Stainless steel, 1.4305 (AISI 303)
Active area material	Stainless steel, 1.4305 (AISI 303)
Max. tightening torque of housing nut	10 Nm
Electrical connection	Connector, M12 x 1

Environmental conditions	
Ambient temperature	-25...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
Switching state	
	LED, Yellow

## Accessories

Type code	Ident-No.		Dimension drawing
MW-12	6945003	Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)	 <p>Technical drawing of a mounting bracket (MW-12) with dimensions: 12.7, 12.7, 13.9, 38.1, 5.5, 9.5, 19.1, 38.1, 1.8, 7.9, 14.3, 34.8.</p>
BSS-12	6901321	Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene	 <p>Technical drawing of a mounting clamp (BSS-12) with dimensions: 5, 20, 26.5, 34, 30, 12.</p>