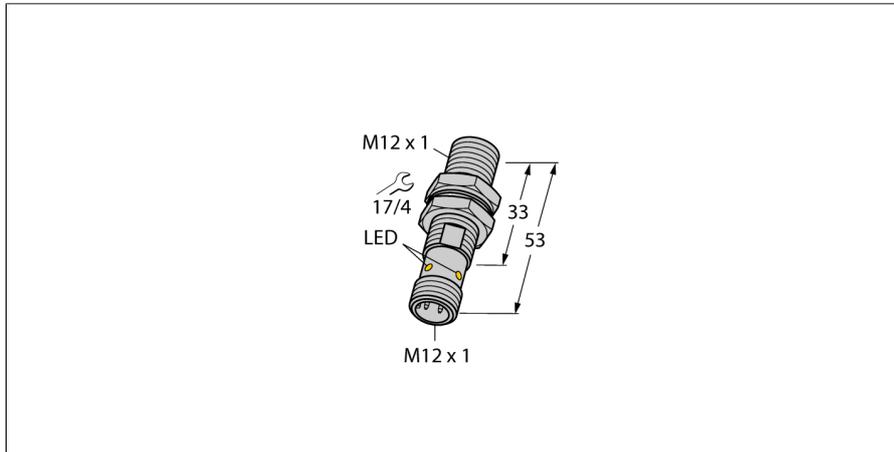
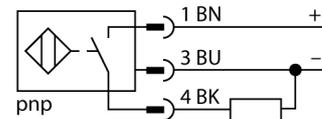


Inductive Sensor Stainless Steel Front BI2-EG12F-AP6X-H1141



- 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



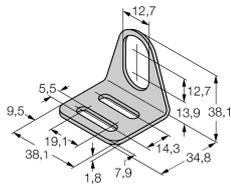
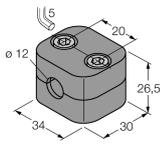
Functional principle

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
ID	4614635
General data	
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 %
Electrical data	
Operating voltage U_o	10...30 VDC
Ripple U_{rs}	$\leq 10\% U_{Bmax}$
DC rated operating current I_o	≤ 200 mA
Residual current	≤ 0.1 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_o	≤ 2 V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, PNP
Switching frequency	0.1 kHz
Mechanical data	
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 for threaded barrel sensors. The drawing shows a perspective view of a U-shaped bracket with a central slot. Dimensions are provided in millimeters: 12.7 (width of the top flange), 12.7 (height of the top flange), 13.9 (width of the central slot), 38.1 (total width), 34.8 (width of the bottom flange), 7.9 (height of the bottom flange), 1.8 (thickness of the bottom flange), 19.1 (width of the central slot from the left edge), 5.5 (width of the top flange from the left edge), 9.5 (height of the top flange from the left edge), and 14.3 (width of the bottom flange from the right edge).</p>
BSS-12	6901321	Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene	 <p>Technical drawing of a cylindrical mounting clamp for smooth and threaded barrel sensors. The drawing shows a perspective view of a cylinder with a central hole. Dimensions are provided in millimeters: 5 (height of the top flange), 20 (width of the top flange), 26.5 (height of the main body), 34 (width of the main body), 30 (width of the bottom flange), and 12 (diameter of the central hole).</p>