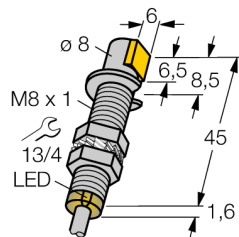


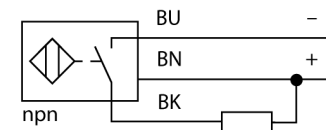
Inductive Sensor

BI1.5-GS880-AN6X



- Threaded barrel, M8 x 1
- Active face, lateral
- Stainless steel, 1.4404
- DC 3-wire, 10...30 VDC
- NO contact, NPN output
- Cable connection

Wiring Diagram



Type	BI1.5-GS880-AN6X
ID	4604501

General data	
Rated switching distance S_n	1.5 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	3...15 %

Electrical data	
Operating voltage U_o	10...30 VDC
Ripple U_{res}	≤ 10 % U_{Bmax}
DC rated operating current I_o	≤ 150 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 break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, NPN
Switching frequency	3 kHz

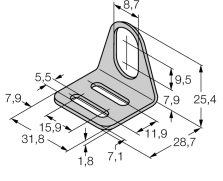
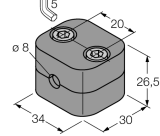
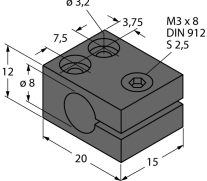
Mechanical data	
Design	Threaded barrel, M8 x 1
Dimensions	47 mm
Housing material	Metal
Active area material	Plastic, POM
End cap	Plastic, PP
Electrical connection	Cable
Cable quality	Ø 4mm, LifYY-11Y, PUR, 2 m
Core cross-section	3 x 0.25 mm ²

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.

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

Accessories

Type code	Ident-No.		Dimension drawing
MW-08	6945008	Mounting bracket for threaded barrel sensors; material: Stainless steel A2 1.4301 (AISI 304)	 Technical drawing of the MW-08 mounting bracket. It is a U-shaped bracket with a central slot. Dimensions: 8.7 (width of top flange), 9.5 (height of top flange), 7.9 (width of base), 15.9 (width of base), 31.8 (width of base), 1.8 (thickness of base), 7.1 (width of base), 28.7 (width of base), 11.9 (width of base), 25.4 (width of base).
BSS-08	6901322	Mounting clamp for smooth and threaded barrel sensors; material: Polypropylene	 Technical drawing of the BSS-08 mounting clamp. It is a rectangular clamp with two circular holes. Dimensions: 20 (width), 26.5 (height), 34 (width), 30 (width), 5 (height of top flange), 8 (diameter of hole).
MBS80	69479	Mounting clamp for smooth barrel sensors; mounting block material: Anodized aluminum	 Technical drawing of the MBS80 mounting clamp. It is a rectangular block with two circular holes. Dimensions: 20 (width), 15 (height), 12 (height), 8 (diameter of hole), 3.2 (diameter of hole), 7.5 (width), 3.75 (width), M3 x 8 DIN 912 5 2.5 (thread).