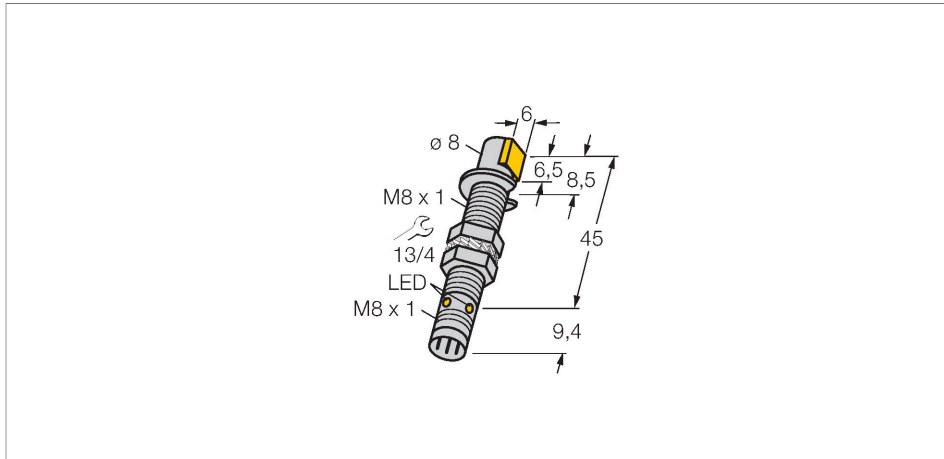


# BI1.5-GS880-AP6X-V1631

## Inductive Sensor



### Features

- Threaded barrel, M8 x 1
- Active face, lateral
- Stainless steel, 1.4404
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M8 x 1 male connector

### Wiring diagram



### Technical data

Type	BI1.5-GS880-AP6X-V1631
ID	4604403
<b>General data</b>	
Rated switching distance	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	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$
Hysteresis	3...15 %
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Residual ripple	$\leq 10\% U_{ss}$
DC rated operational current	$\leq 150$ mA
No-load current	15 mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes / Cyclic
Voltage drop at $I_o$	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Switching frequency	3 kHz

### 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

Mechanical data	
Design	Threaded barrel, M8 x 1
Dimensions	54.4 mm
Housing material	Metal
Active area material	Plastic, POM
Electrical connection	Connector, M8 x 1
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													
	<table border="1"> <tbody> <tr> <td>Distance D</td> <td>2 x B</td> </tr> <tr> <td>Distance W</td> <td>3 x Sn</td> </tr> <tr> <td>Distance T</td> <td>3 x B</td> </tr> <tr> <td>Distance S</td> <td>1.5 x B</td> </tr> <tr> <td>Distance G</td> <td>6 x Sn</td> </tr> <tr> <td>Diameter active area B</td> <td>Ø 8 mm</td> </tr> </tbody> </table>	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
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Diameter active area B	Ø 8 mm												

## Accessories

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

