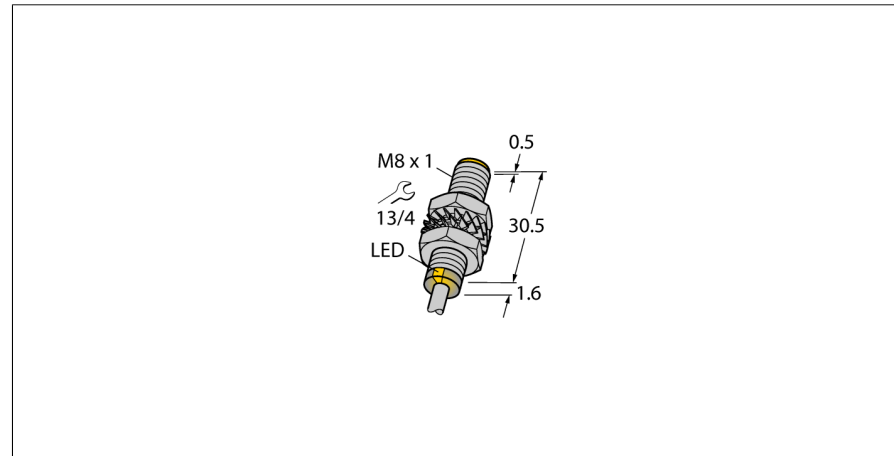
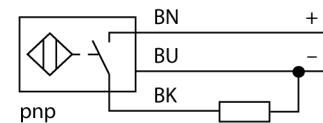


**Inductive sensor**  
**With increased switching distance**  
**BI2-M08-AP6X**



- Threaded barrel, M8 x 1
- Nickel-plated brass
- Large sensing range
- 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, 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.

<b>Type designation</b>	BI2-M08-AP6X
Ident no.	4602901
<b>Rated switching distance Sn</b>	2 mm
Mounting conditions	Flush
Secured operating distance	≤ (0,81 x Sn) mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	≤ 2 % of full scale
Temperature drift	≤ ± 10 %
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
<b>Operating voltage</b>	10...30 VDC
Residual ripple	≤ 10 % U <sub>ss</sub>
DC rated operational current	≤ 150 mA
No-load current I <sub>0</sub>	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes/ Cyclic
Voltage drop at I <sub>0</sub>	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NO contact, PNP
Switching frequency	2.8 kHz
<b>Design</b>	Threaded barrel, M8 x 1
Dimensions	32.1 mm
Housing material	Metal, CuZn, Nickel-plated
Active area material	Plastic, PP-GF20
End cap	Plastic, PP-GF20
Max. tightening torque housing nut	7 Nm
Electrical connection	Cable
Cable quality	3 mm, Gray, Lif9Y-11Y, PUR, 2m Suited for E-ChainSystems® acc. to manufacturers declaration H1063M
Cable cross section	3 x 0.14 mm <sup>2</sup>
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
<b>Switching state</b>	LED yellow

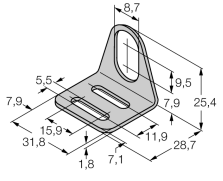
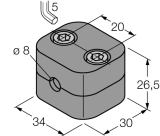
**Inductive sensor  
With increased switching distance  
BI2-M08-AP6X**

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
<hr/>	
Diameter active area B	Ø 8 mm



**Inductive sensor  
With increased switching distance  
BI2-M08-AP6X**

**Accessories**

Type code	Ident no.	Description	
MW-08	6945008	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	
BSS-08	6901322	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	
MBS80	69479	Mounting bracket for threaded barrel devices; material mounting block: Anodized aluminium	