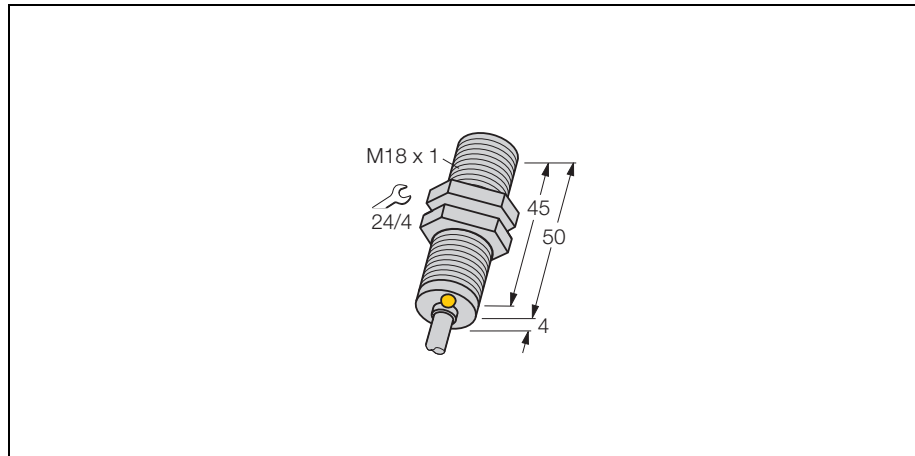


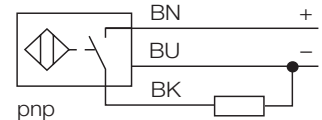
**inductive sensor**

**Bi5-M18-AP6X**



- **Threaded barrel, M18 x 1**
- **Chrome-plated brass**
- **3-wire DC, 10...30 VDC**
- **normally open, pnp output**
- **cable connection**

**Wiring diagram**



**Functional principle**

Inductive sensors are designed for wear-free and non-contact detection of metal objects. For this purpose they use a high-frequency electro-magnetic AC field that interacts with the target. With inductive sensors, this field is generated by an LC resonant circuit with a ferrite core coil.

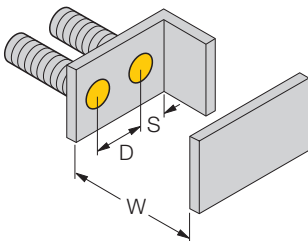
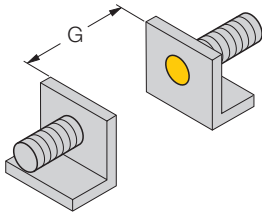
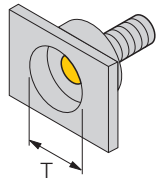
<b>Type</b>	Bi5-M18-AP6X
Ident-No.	46110
<b>Rated operating distance Sn</b>	5 mm
Mounting condition	flush
Assured switching distance	≤ (0,81 x Sn) mm
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Repeatability	≤ 2 %
Temperature drift	≤ ± 10 %
Hysteresis	3... 15 %
Ambient temperature	-25...+ 70 °C
<b>Operating voltage</b>	10... 30 VDC
Residual ripple	≤ 10 % U <sub>SS</sub>
DC rated operational current	≤ 200 mA
No-load current I <sub>0</sub>	≤ 15 mA
Residual current	≤ 0.1 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes / cyclic
Voltage dip at I <sub>e</sub>	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes / complete
Output function	3-wire, normally open, pnp
Switching frequency	≤ 0.5 kHz
<b>Housing</b>	threaded barrel, M18 x 1
Dimensions	54 mm
Housing material	metal, CuZn, chrome-plated
Material active area	plastic, PA12-GF30
End cap	plastic, EPTR
Tightening torque of housing nut	25 Nm
Connection	cable
Cable quality	Ø 5.2, LifYY, PVC, 2 m
Cable cross section:	3 x 0.34 mm <sup>2</sup>
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Degree of protection	IP67
<b>Display switch state</b>	LED yellow

**inductive sensor****Bi5-M18-AP6X**

<b>Mounting instructions</b>	minimum distances
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

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<b>Diameter of the active area B</b>	Ø 18 mm
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# inductive sensor

## Bi5-M18-AP6X

**TURCK**

Industrial  
Automation

### Accessories

Type code	Ident-No.	Short text	Dimension drawing
BST-18B	6947214	fixing clamp with dead-stop; material: PA6	
QM-18	6945102	quick-mount fixing clamp with dead-stop; material: chrome-plated brass male thread M24 x 1.5. Note: The switching distance of proximity switches can be reduced by the use of quick mounting brackets.	
MW-18	6945004	mounting bracket; material: stainless steel A2 1.4301 (AISI 304)	
BSS-18	6901320	fixing clamp; material: polypropylene	