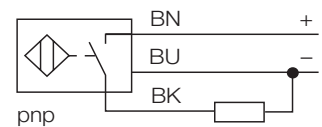


**Inductive sensor  
with extended switching distance  
Bi2-EH6,5K-AP6X**

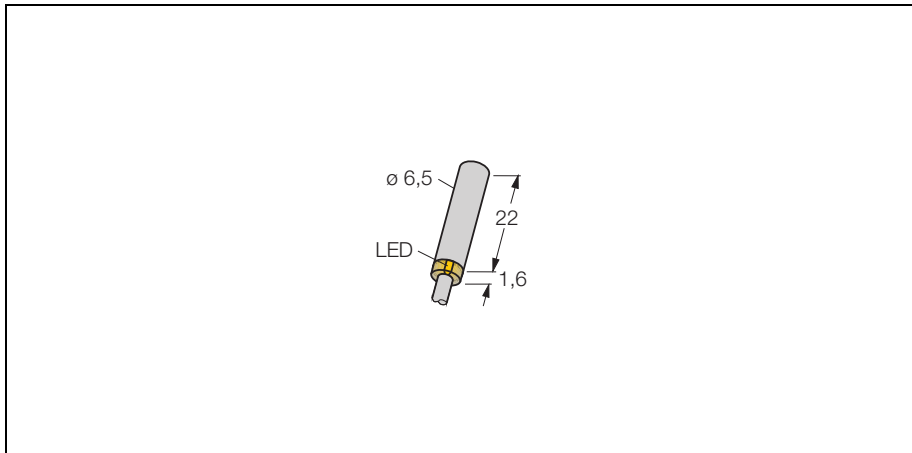
- smooth barrel, 6.5 mm diameter
- stainless steel, 1.4404
- large detection range
- 3-wire DC, 10...30 VDC
- normally open, pnp output
- cable connection

**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>	Bi2-EH6,5K-AP6X
Ident-No.	4610000
<b>Rated operating distance Sn</b>	2 mm
Mounting condition	flush
Assured sensing range	(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... 30VDC
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
Rated insulation voltage	0.5 kV
Short-circuit protection	yes / cyclic
Voltage drop at I <sub>e</sub>	1.8V
Wire breakage / Reverse polarity protection	yes / complete
Output function	3-wire, normally open, pnp
Switching frequency	3 kHz
<b>Housing</b>	smooth barrel, 6.5 mm
Dimensions	23.6 mm
Housing material	metal, AISI 316L
Material active face	plastic, plastic, PA12-GF20
End cap	plastic, PP
Connection	cable
Cable quality	Ø 4, LiYY-11Y, PUR, 2 m
Cable cross section:	3 x 0.25mm <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  
with extended switching distance  
Bi2-EH6,5K-AP6X**

Mounting instructions	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 6.5 mm
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