

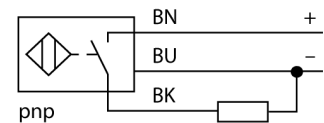
# Inductive sensor BI2-Q5,5-AP6X

**TURCK**

Industrial  
Automation

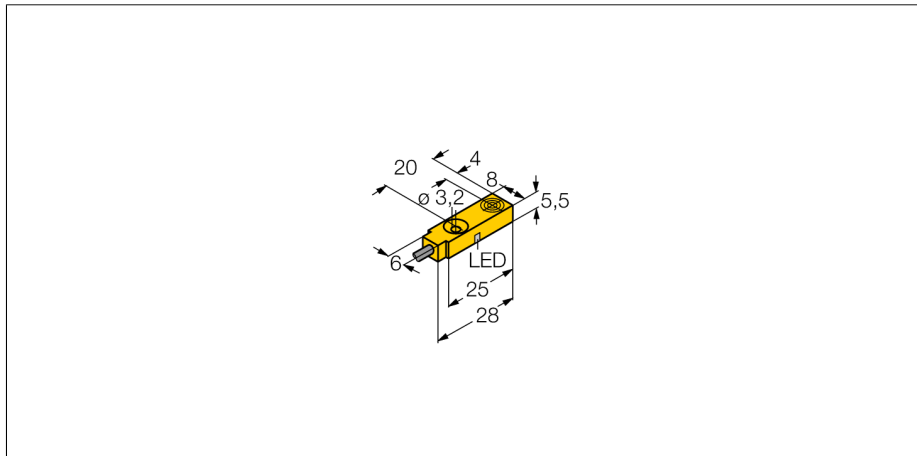
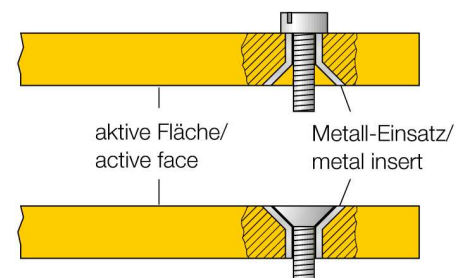
- Rectangular, height 5.5 mm
- Active face on top
- Plastic, PP
- 3-wire DC, 10...30 VDC
- NO contact, PNP output
- Cable connection

### Wiring diagram



### Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. The sensors hosting a ferrite core coil generate the AC field through an LC resonant circuit.



<b>Type code</b>	BI2-Q5,5-AP6X
Ident no.	1613000
<b>Rated operating distance Sn</b>	2 mm
Mounting condition	flush
Assured sensing range	$\leq (0,81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	$\leq 2\%$ of full scale
Temperaturdrift	10 %
Hysteresis	3...15 %
Ambient temperature	-25...+85 °C
<b>Operating voltage</b>	10...30VDC
Residual ripple	$\leq 10\%$ $U_{ss}$
DC rated operational current	$\leq 150$ mA
No-load current $I_0$	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Rated insulation voltage	$\leq 0.5$ kV
Short-circuit protection	yes/ cyclic
Voltage drop at $I_0$	$\leq 1.8$ V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, PNP
Switching frequency	2 kHz
<b>Design</b>	rectangular, Q5.5
Dimensions	28x 8x 5.5 mm
Housing material	Plastic, PP
Tightening torque fixing screw	0.5 Nm
Connection	cable
Cable quality	3 mm, LifYY-11Y, PUR, 2 m
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>	● yellow

**Inductive sensor  
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Distance D	$2 \times B$
Distance W	$3 \times S_n$
Distance S	$1 \times B$
Distance G	$6 \times S_n$

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Width of the active face B 8 mm

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