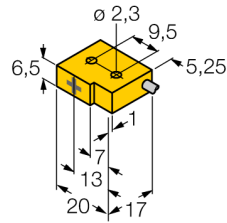


# Inductive sensor

## BI1-Q6,5-AN6

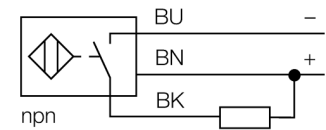
**TURCK**

Industrial  
Automation



- Rectangular, height 6.5 mm
- Active face, lateral
- Plastic, PP GR-20
- 3-wire DC, 10...30 VDC
- NO contact, NPN 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.

We offer special versions for temperatures of -60 °C up to +250 °C.

<b>Type code</b>	BI1-Q6,5-AN6
Ident no.	4613420
<b>Rated operating distance Sn</b>	1 mm
Mounting condition	flush
Assured sensing range	≤ (0,81 x Sn) mm
Correction factors	St37 = 1; Al = 0.1; stainless steel = 0.7; Ms = 0.25
Repeatability	≤ 2 % of full scale
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>0</sub>	≤ 1.8 V
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, NO contact, NPN
Switching frequency	2 kHz
<b>Design</b>	rectangular, Q6.5
Dimensions	20 x 17 x 6.5 mm
Housing material	plastic, PP
Connection	cable
Cable quality	2 mm, grey, Lif9Y-11Y, PUR, 2 m
Cable cross section	3 x 0.08 mm <sup>2</sup>
Litz wire	40x0.05mm <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

**Inductive sensor  
BI1-Q6,5-AN6**

Distance D	2 x B
Distance W	3 x Sn
Distance S	1 x B
Distance G	6 x Sn
Width of the active face B	6.5 mm

**Note for installation in ST37:**  
4-side flush mounting is not possible

