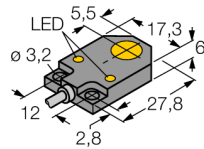


# Inductive sensor

## BI3-Q06-AN6X2

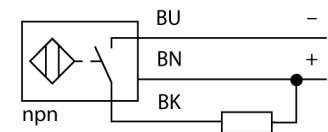
**TURCK**

Industrial  
Automation



- Rectangular, height 6 mm
- Active face on top
- Plastic, PA12-GF30
- DC 3-wire, 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.

<b>Type designation</b>	BI3-Q06-AN6X2
Ident no.	1620150
<b>Rated switching distance <math>S_n</math></b>	3 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0,81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$
Hysteresis	3...15 %
Ambient temperature	-25...+70 °C
<b>Operating voltage</b>	10...30 VDC
Residual ripple	$\leq 10\% U_{ss}$
DC rated operational current	$\leq 200$ mA
No-load current $I_0$	$\leq 15$ mA
Residual current	$\leq 0.1$ mA
Isolation test 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, NPN
Reverse polarity protection	Complete
Switching frequency	1 kHz
<b>Design</b>	Rectangular, Q06
Dimensions	27.8 x 17.3 x 6 mm
Housing material	Plastic, PP
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>Power-on indication</b>	LED green
Switching state	LED yellow

**Inductive sensor  
BI3-Q06-AN6X2**

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<b>Distance D</b>	2 x B
Distance W	3 x Sn
Distance S	1 x B
Distance G	6 x Sn

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**Width active area B** 5.5 mm

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