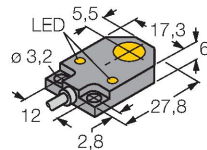


BI3-Q06-AN6X2

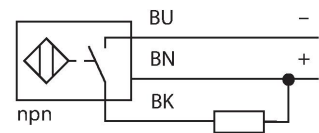
Inductive Sensor



Features

- 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.

Technical data

Type	BI3-Q06-AN6X2
ID	1620150
General data	
Rated switching distance	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	≤ 2 % of full scale
Temperature drift	$\leq \pm 10$ %
Hysteresis	3...15 %
Electrical data	
Operating voltage U_B	10...30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
DC rated operating current I_B	≤ 200 mA
No-load current	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes/Cyclic
Voltage drop at I_B	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, NPN
Switching frequency	1 kHz

Technical data

Mechanical data	
Design	Rectangular, Q06
Dimensions	27.8 x 17.3 x 6 mm
Housing material	Plastic, PP
Active area material	PA12-GF30
Electrical connection	Cable
Cable quality	Ø 4 mm, LifY-11Y, PUR, 2 m
Core cross-section	3 x 0.25 mm ²
Environmental conditions	
Ambient temperature	-25...+70 °C
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
Power-on indication	LED, Green
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description

The image contains two technical diagrams. The left diagram shows two yellow Q06 sensors mounted on a grey rail. Dimension lines indicate: 'B' as the width of a sensor, 'D' as the distance between the centers of the two sensors, 'S' as the distance from the end of the rail to the center of the first sensor, and 'W' as the total width of the rail assembly. The right diagram shows two yellow sensors, one from a top-down perspective and one from a side perspective, with dimension 'G' indicating the width of the sensor's base.

Distance D	2 x B
Distance W	3 x Sn
Distance S	1 x B
Distance G	6 x Sn
Width active area B	5.5 mm

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