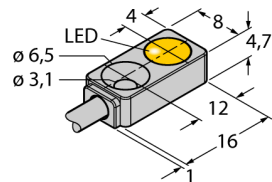


Inductive sensor

BI2-Q4.7-AP6X

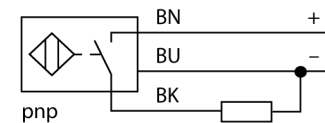
TURCK
works

Industrial
Automation



- Rectangular, height 4.7 mm
- Active face on top
- Metal housing, GD-ZnAl
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

Wiring Diagram



Functional principle

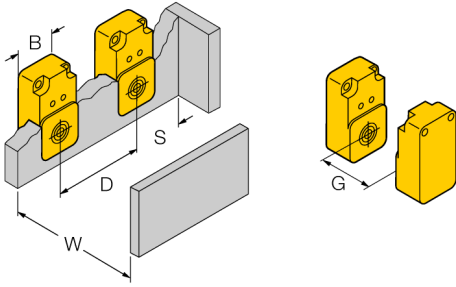
Inductive sensors detect metal objects contactless and wear-free. For this, they use a high-frequency electromagnetic AC field that interacts with the target. Inductive sensors generate this field via an RLC circuit with a ferrite coil.

Type designation	BI2-Q4.7-AP6X
Ident-No.	1614000
Rated switching distance S_n	2 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	0...+85 °C
Operating voltage	10...30 VDC
Residual ripple	$\leq 10\% U_{ss}$
DC rated operational current	≤ 100 mA
No-load current I_0	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes/ Cyclic
Voltage drop at I_0	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NO contact, PNP
Switching frequency	1 kHz
Design	Rectangular, Q4,7
Dimensions	16 x 8 x 4.7 mm
Housing material	Metal, GD-ZnAl
Active area material	Plastic, PA12
Tightening torque fixing screw	0.5 Nm
Electrical connection	Cable
Cable quality	3mm, Gray, Lif9Y-11Y, PUR, 2 Suited for E-ChainSystems® acc. to manufacturers declaration H1063M
Cable cross section	3 x 0.14 mm ²
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
Packaging unit	1
Switching state	LED, Yellow

Inductive sensor BI2-Q4.7-AP6X

Distance D	2 x B
Distance W	3 x Sn
Distance S	1.5 x B
Distance G	6 x Sn

Width active area B	8 mm
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Inductive sensor BI2-Q4.7-AP6X



Accessories

Type code	Ident-No.	Description	
MW-Q4.7/Q5.5	6945013	Mounting bracket for rectangular Q4.7 or Q5.5; material VA 1.4401	A technical drawing of a rectangular mounting bracket. The drawing shows a perspective view of the bracket with a circular hole. Dimensions are provided: a top width of 9, a bottom width of 16.2, a hole diameter of 3.1, a hole offset of 11.5 from the left edge, a hole offset of 2.3 from the right edge, a hole depth of 1, a hole diameter of 1.5, and a hole diameter of 2. The drawing is in black lines on a white background.