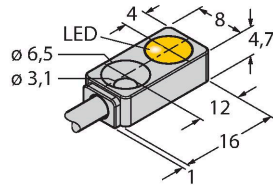


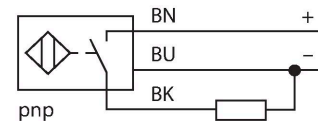
# BI2-Q4.7-AP6X Inductive Sensor



## Features

- 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



## Technical data

Type	BI2-Q4.7-AP6X
ID	1614000
<b>General data</b>	
Rated switching distance	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 %
<b>Electrical data</b>	
Operating voltage	10...30 VDC
Residual ripple	$\leq 10$ % $U_{ss}$
DC rated operational current	$\leq 100$ mA
No-load current	15 mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes / Cyclic
Voltage drop at $I_o$	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Switching frequency	1 kHz

## 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

Mechanical data	
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	Ø 3 mm, Gray, LifY-11Y, PUR, 2 m
Core cross-section	3 x 0.14 mm <sup>2</sup>
Environmental conditions	
Ambient temperature	0...+85 °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
Switching state	LED, Yellow

## Mounting instructions

Mounting instructions/Description		
	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

## Accessories

MW-Q4.7/Q5.5	6945013
	Mounting bracket for rectangular Q4.7 or Q5.5; material VA 1.4401