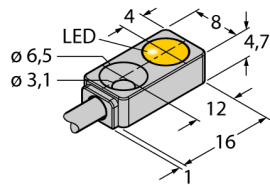


# Inductive Sensor

## BI2-Q4.7-AN6X 7M



Type	BI2-Q4.7-AN6X 7M
ID	100003144

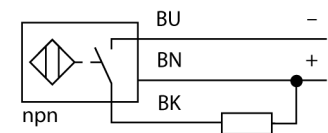
General data	
Rated switching distance $S_n$	2 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeat accuracy	$\leq 2\%$ of full scale
Temperature drift	$\leq \pm 10\%$
Hysteresis	3...15 %

Electrical data	
Operating voltage	10...30 VDC
Residual ripple	$\leq 10\% U_{is}$
DC rated operational current	$\leq 100$ mA
Residual current	$\leq 0.1$ mA
Isolation test voltage	$\leq 0.5$ kV
Short-circuit protection	yes/ Cyclic
Voltage drop at $I_n$	$\leq 1.8$ V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NO contact, NPN
Switching frequency	1 kHz

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	$\varnothing 3$ mm, Gray, LifY-11Y, PUR, 7 m
Core cross-section	3 x 0.14 mm <sup>2</sup>

- Rectangular, height 4.7 mm
- Active face on top
- Metal housing, GD-ZnAl
- 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.

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

**Accessories**

Type code	Ident no.		Dimension drawing
MW-Q4.7/Q5.5	6945013	Mounting bracket for rectangular Q4.7 or Q5.5; material VA 1.4401	