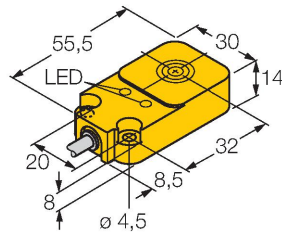


BI10-Q14-AP6X2

Inductive Sensor



Features

- Rectangular, height 14 mm
- Active face on top
- Plastic, PBT-GF30-V0
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- Cable connection

Wiring diagram



Technical data

Type	BI10-Q14-AP6X2
ID	1608720
General data	
Rated switching distance	10 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, PNP
Switching frequency	0.25 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, Q14
Dimensions	52 x 30 x 14 mm
Housing material	Plastic, PBT-GF30-V0
Active area material	PBT-GF30-V0
Electrical connection	Cable
Cable quality	Ø 5.2 mm, LifYY-11Y, PUR, 2 m
Core cross-section	3 x 0.34 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

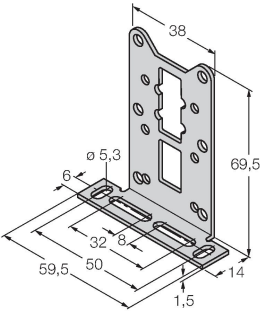
Mounting instructions

Mounting instructions/Description

The image contains two technical diagrams. The left diagram is a side-view perspective of a yellow sensor unit mounted on a grey wall. It shows the sensor's profile and its mounting bracket. Dimensions are indicated with arrows: 'B' for the width of the sensor's active area, 'D' for the distance between the sensor and the wall, 'S' for the distance from the wall to the sensor's front face, and 'W' for the total width of the mounting bracket. The right diagram is a top-view perspective of the same yellow sensor unit, showing its rectangular shape. Dimension 'G' is indicated with an arrow, representing the distance from the wall to the sensor's front face.

Distance D	1.5 x B
Distance W	3 x Sn
Distance S	1 x B
Distance G	6 x Sn
Width active area B	30 mm

Accessories

MW-Q14/Q20	6945006
 Mounting bracket for rectangular Q14 or Q20; material VA 1.4301	