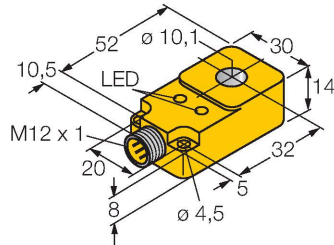


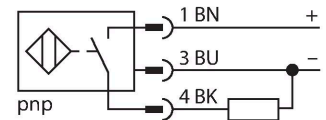
BI10R-Q14-AP6X2-H1141
Inductive Sensor – Ring Sensor



Features

- Rectangular, height 14 mm
- Plastic, PBT-GF30-V0
- Static output behaviour
- Output pulse length min. 100 ms
- DC 3-wire, 10...30 VDC
- NO contact, PNP output
- M12 x 1 male connector

Wiring diagram



Functional principle

Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. Inductive ring sensors generate this field through an LC resonant circuit. The target acts as the coil core.

Technical data

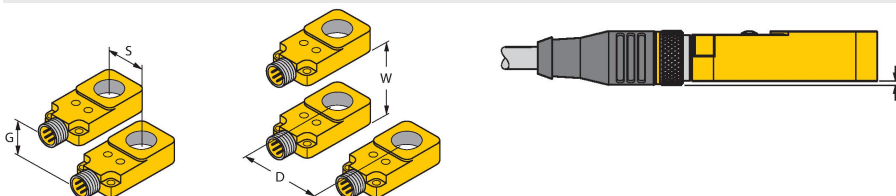
Type	BI10R-Q14-AP6X2-H1141
ID	1407100
General data	
Inside ring diameter D	10.1 mm
Steel ball diameter (DIN 5401)	≥ 2 mm
Fly-by speed	1...28 m/s
pulse stop	≥ 5 ms
Pulse duration at the ouput	≥ 100 ms ± 20 %
Electrical data	
Operating voltage U _s	10...30 VDC
Ripple U _{ss}	≤ 10 % U _{Bmax}
DC rated operating current I _s	≤ 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 _s	≤ 1.8 V
Wire break/reverse polarity protection	yes/Complete
Output function	3-wire, NO contact, PNP
Switching frequency	0.008 kHz
Mechanical data	
Design	Ring sensor, Q14
Dimensions	62.5 x 30 x 14 mm
Housing material	Plastic, PBT-GF30-V0
Electrical connection	Connector, M12 × 1
Coil body	plastic, POM

Technical data

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 three technical drawings of a yellow sensor. On the left, an isometric view shows the sensor with dimensions: 'S' for the length of the main body, 'G' for the height of the mounting bracket, and 'D' for the distance between the mounting holes. In the center, a side view shows the sensor with dimensions: 'W' for the width of the main body and 'D' for the distance between the mounting holes. On the right, a side view of the sensor cable is shown, with a dimension line indicating the distance from the mounting bracket to the end of the cable.

Distance D	45 mm
Distance W	45 mm
Distance S	14 mm
Distance G	30 mm

When mounting the sensor with an M12 connector, observe a low horizontal offset to the surface. This may vary depending on the choice of the connector.

Accessories

Dimension drawing	Type	ID	
	RKC4T-2/TEL	6625010	Connection cable, M12 female connector, straight, 3-pin, cable length: 2 m, jacket material: PVC, black; cULus approval