

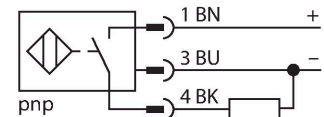
# BI6R-W30-DAP6X-H1141

## Inductive Sensor – Ring Sensor

### Features

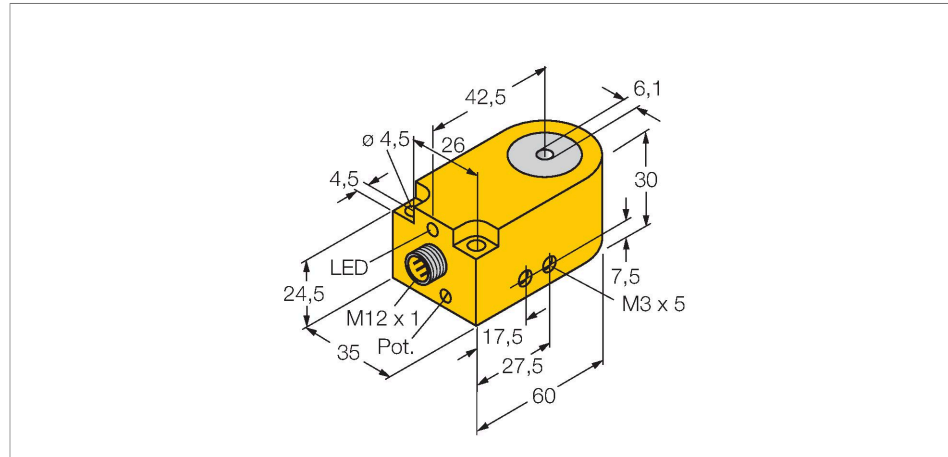
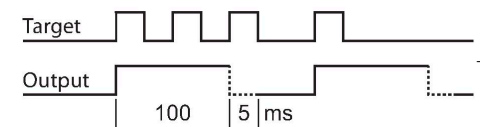
- Rectangular, height 30 mm
- Plastic, PA12-GF30
- Pulse duration 100 ms
- Sensitivity adjusted via potentiometer
- DC 3-wire, 10...30 VDC
- Dynamic output behaviour
- NO contact, PNP output
- M12 x 1 male connector

### 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

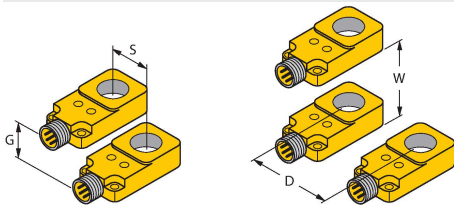
Type	BI6R-W30-DAP6X-H1141
Ident. no.	14036
Inside ring diameter D	6.1 mm
Steel ball diameter (DIN 5401)	≥ 0.6 mm
Fly-by speed	0.1...50 m/s
pulse stop	≥ 5 ms
Pulse duration	100 ms ± 20 %
Ambient temperature	-25...+70 °C
Operating voltage	10...30 VDC
Residual ripple	≤ 10 % U <sub>ss</sub>
DC rated operational current	≤ 200 mA
No-load current	≤ 10 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at I <sub>e</sub>	≤ 2.5 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Switching frequency	0.008 kHz
<b>Design</b>	<b>Ring sensor, W30</b>
Dimensions	60 x 35 x 30 mm
Housing material	Plastic, PA12-GF30
Electrical connection	Connector, M12 x 1
Coil body	plastic, POM

## Technical data

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	120 mm
Distance W	120 mm
Distance S	6 mm
Distance G	120 mm

## Wiring accessories

Dimension drawing	Type	Ident. no.	
	RKC4T-2/TEL	6625010	



Connection cable, female M12, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see [www.turck.com](http://www.turck.com)