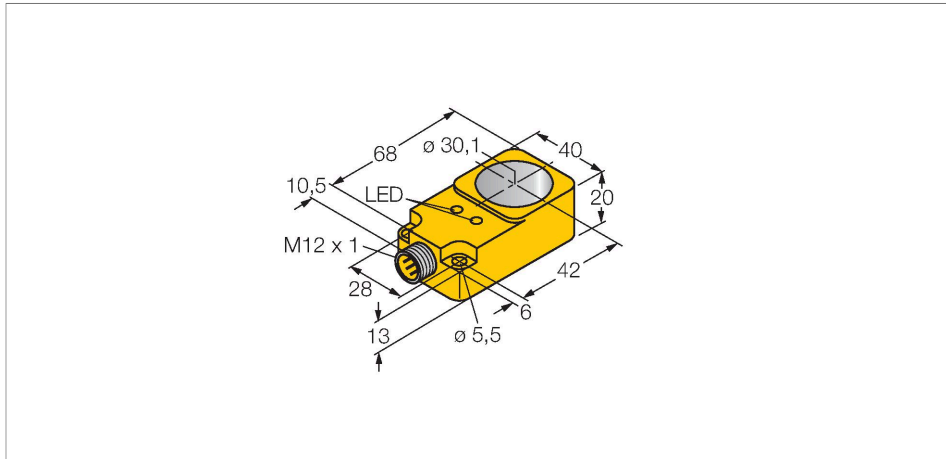


# BI30R-Q20-AP6X2-H1141

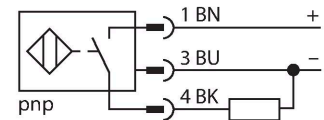
## Inductive Sensor – Ring Sensor



### Features

- Rectangular, height 20 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



### Technical data

Type	BI30R-Q20-AP6X2-H1141
Ident. no.	1407500
Inside ring diameter D	30.1 mm
Steel ball diameter (DIN 5401)	≥ 6 mm
Fly-by speed	40 m/s
pulse stop	≥ 5 ms
Pulse duration at the output	≥ 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	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes / Cyclic
Voltage drop at I <sub>e</sub>	≤ 1.8 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, Q20</b>
Dimensions	68 x 40 x 20 mm
Housing material	Plastic, PBT-GF30-V0
Electrical connection	Connector, M12 x 1
Coil body	plastic, POM

### Functional principle

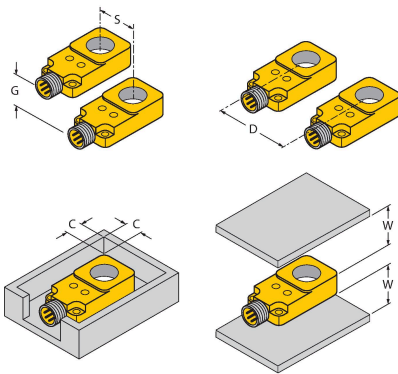
Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. Inductive ring sensors generate this field through an LC resonant circuit. The target acts as the coil core.

## Technical data

Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP65
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



Distance D	55 mm
Distance W	40 mm
Distance S	20 mm
Distance G	40 mm
Distance C	0 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)