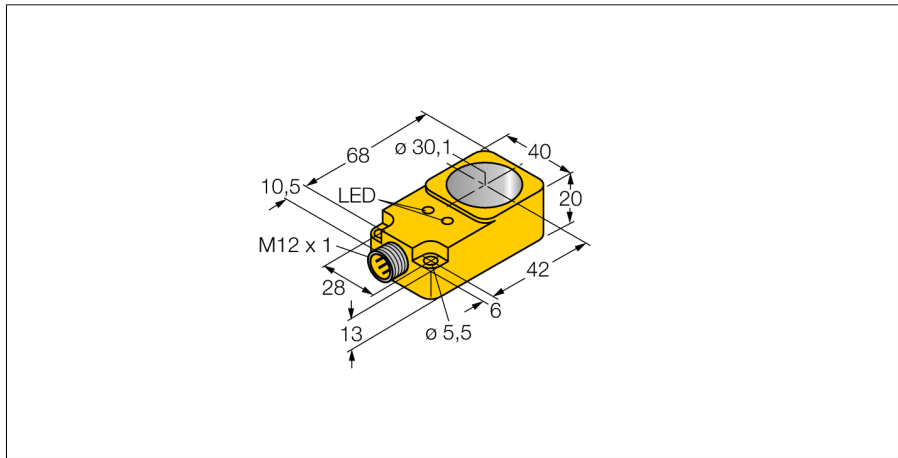
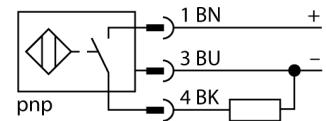


Inductive sensor
Ring sensor
BI30R-Q20-AP6X2-H1141



- 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



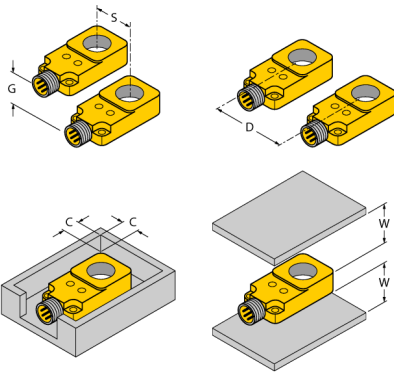
Functional principle

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.

Type designation	BI30R-Q20-AP6X2-H1141
Ident-No.	1407500
Inside ring diameter D	30.1 mm
Steel ball diameter (DIN 5401)	≥ 6 mm
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 _{ss}
DC rated operational current	≤ 200 mA
No-load current I ₀	≤ 15 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes/ Cyclic
Voltage drop at I ₀	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NO contact, PNP
Switching frequency	0.008 kHz
Design	Ring sensor, Q20
Dimensions	68 x 40 x 20 mm
Housing material	Plastic, PBT-GF30-V0
Electrical connection	Connector, M12 x 1
Coil body	plastic, POM
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

Inductive sensor
Ring sensor
BI30R-Q20-AP6X2-H1141

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



Inductive sensor
Ring sensor
BI30R-Q20-AP6X2-H1141



Wiring accessories

Type code	Ident-No.	Description	
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	A technical drawing of the RKC4T-2/TEL connection cable. It shows a female M12 connector on the left, which is 11.5 units long. The connector has a diameter of 15 units and a thread of M12 x 1. The cable body is 42 units long. On the right, the cable ends in a 3-pin connector that is 50 units long. The total length of the cable is labeled as 'L'. The drawing also shows a detail of the connector's internal structure with a diameter of 14 units.