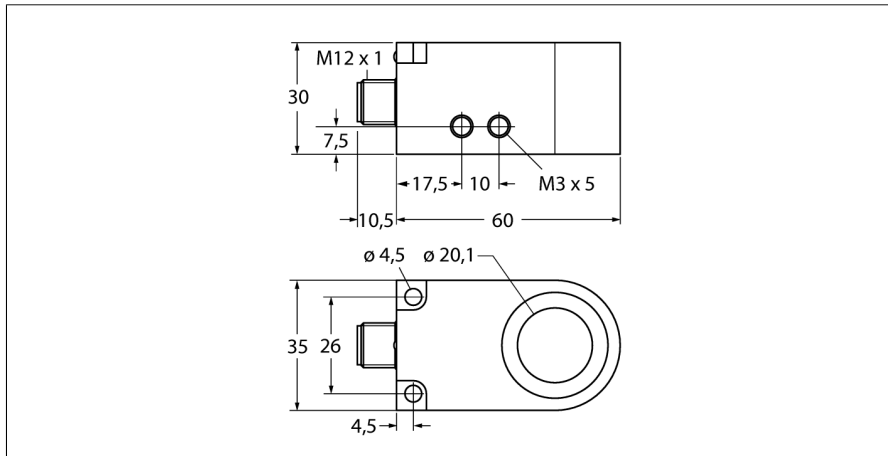
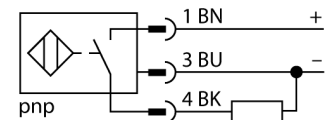


Inductive sensor
Ring sensor
BI20R-W30-DAP6X-H1141



- 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

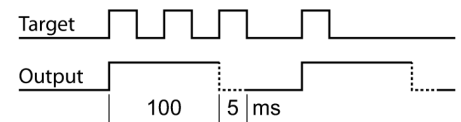
Wiring Diagram



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.

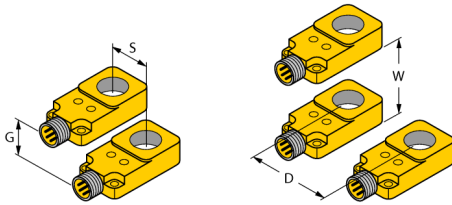
Output Behaviour



Type designation	BI20R-W30-DAP6X-H1141
Ident-No.	14042
Inside ring diameter D	20.1 mm
Steel ball diameter (DIN 5401)	≥ 4 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 _{in}
DC rated operational current	≤ 200 mA
No-load current I ₀	≤ 10 mA
Residual current	≤ 0.1 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes/ Cyclic
Voltage drop at I ₀	≤ 2.5 V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NO contact, PNP
Switching frequency	0.008 kHz
Design	Ring sensor,W30
Dimensions	60 x 35 x 30 mm
Housing material	Plastic, PA12-GF30
Electrical connection	Connectors, M12 × 1
Coil body	plastic, POM
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
Packaging unit	1
Switching state	LED, Yellow

Inductive sensor
Ring sensor
BI20R-W30-DAP6X-H1141

Distance D	120 mm
Distance W	120 mm
Distance S	20 mm
Distance G	120 mm

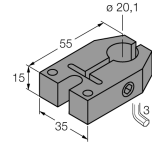


Inductive sensor
Ring sensor
BI20R-W30-DAP6X-H1141



Accessories

Type code	Ident-No.	Description
BS-BI20R-W30	6900401	Fixing clamp for direct mounting on the pipe or tube; clamping ability 19...20 mm; material: POM; included in scope of supply: 1x M4 x 30 (DIN 912-A2); 2x M4 x 35 (DIN 912-A2)



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

