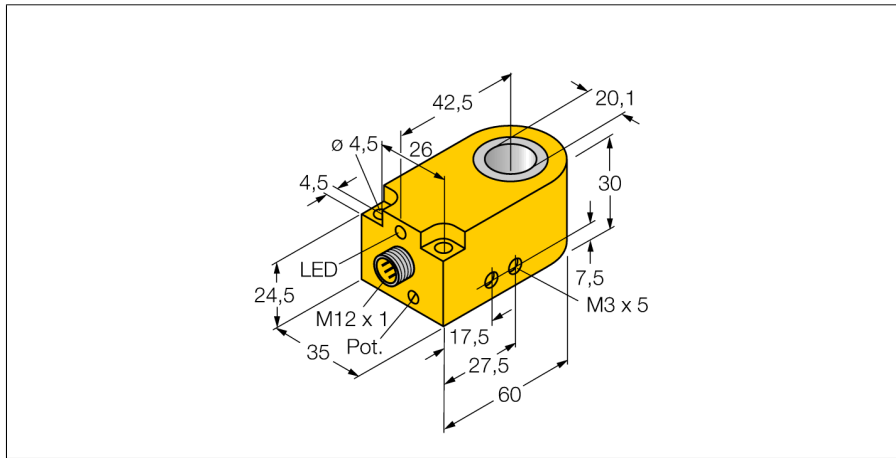
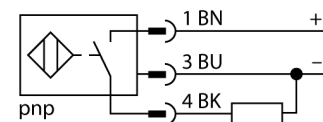


Inductive sensor
Ring sensor
BI20R-W30-DAP6X-H1141



- 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

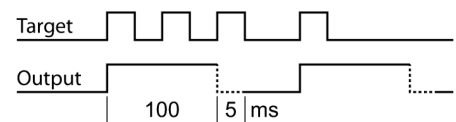


Type designation	BI20R-W30-DAP6X-H1141
Ident no.	14042
Inside ring diameter D	20.1 mm
Steel ball diameter (DIN 5401)	≥ 2 mm
Fly-by speed	0.1...50 m/s
pulse stop	≥ 5 ms
Pulse duration	100 ms ± 20 %
Ambient temperature	-25...+70 °C
Operating voltage	10...30 VDC
Residual ripple	≤ 10 % U _{in}
DC rated operational 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 _n	≤ 2.5 V
Wire breakage/Reverse polarity protection	yes/ Complete
Output function	3-wire, NO contact, PNP
Reverse polarity protection	Complete
Switching frequency	0.008 kHz
Design	Ring sensor, W30
Dimensions	60 x 35 x 30 mm
Housing material	Plastic, PA12-GF30
Electrical connection	Connector, M12 x 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
Switching state	LED yellow

Functional principle

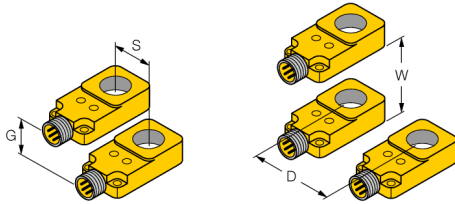
Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. Inductive ring sensors generate this field through an LC resonant circuit. The target acts as the coil core.

Output Behaviour



Inductive sensor
Ring sensor
BI20R-W30-DAP6X-H1141

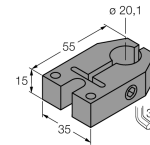
Distance D	120 mm
Distance W	120 mm
Distance S	20 mm
Distance G	120 mm



**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

