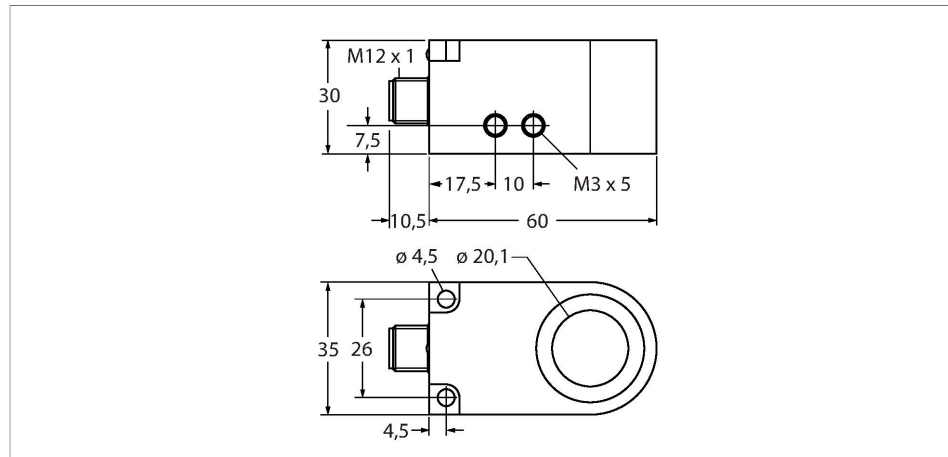


BI20R-W30-DAN6X-H1141

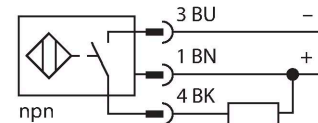
Inductive Sensor – Ring Sensor



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, NPN output
- M12 x 1 male connector

Wiring diagram

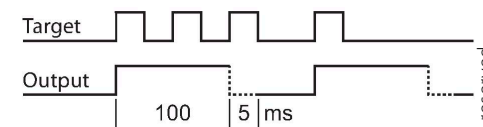


Technical data

Type	BI20R-W30-DAN6X-H1141
Ident. no.	14043
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 _{ss}
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 _e	≤ 2.5 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, NPN
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

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.

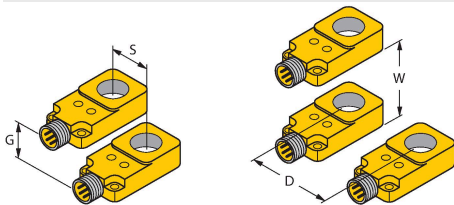


Technical data

Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

Mounting instructions

Mounting instructions/Description

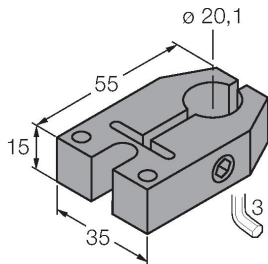


Distance D	120 mm
Distance W	120 mm
Distance S	20 mm
Distance G	120 mm

Accessories

BS-BI20R-W30

6900401



Mounting bracket for ring sensors for direct mounting on the pipe or tube; clamping range 19...20 mm; material: POM

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

