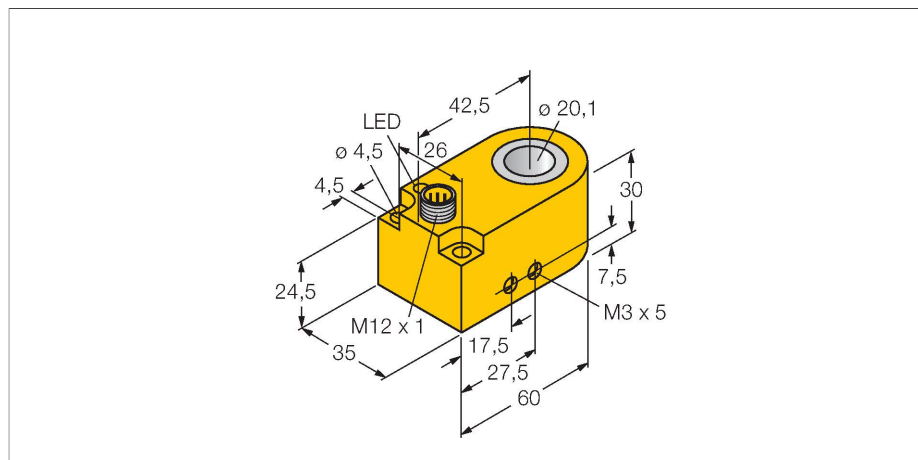


BI20R-W30S-AP6X-H1141

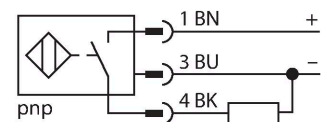
Inductive Sensor – Ring Sensor



Features

- Rectangular, height 30 mm
- Plastic, PA12-GF30
- 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

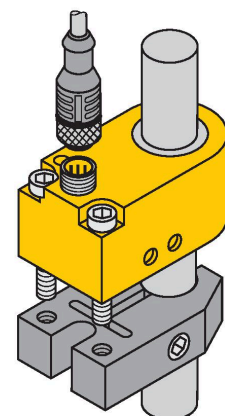


Technical data

Type	BI20R-W30S-AP6X-H1141
ID	1403231
General data	
Inside ring diameter D	20.1 mm
Steel ball diameter (DIN 5401)	≥ 4 mm
Fly-by speed	40 m/s
pulse stop	≥ 5 ms
Pulse duration at the output	≥ 100 ms ± 20 %
Electrical data	
Operating voltage	10...30 VDC
Residual ripple	≤ 10 % U _{ss}
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 _o	≤ 1.8 V
Wire breakage/Reverse polarity protection	yes / Complete
Output function	3-wire, NO contact, PNP
Switching frequency	0.008 kHz
Mechanical data	
Design	Ring sensor, W30S
Dimensions	60 x 35 x 30 mm
Housing material	Plastic, PA12-GF30
Electrical connection	Connector, M12 × 1
Coil body	plastic, POM

Functional principle

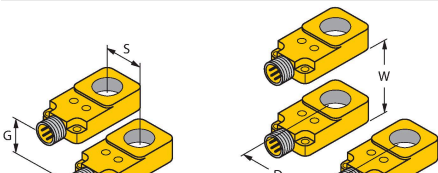
Inductive sensors detect metal objects contactless and wear-free. For this purpose they use a high-frequency electromagnetic AC field that interacts with the target. Inductive ring sensors generate this field through an LC resonant circuit. The target acts as the coil core.



Technical data

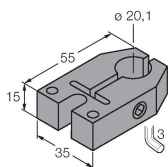
Environmental conditions	
Ambient temperature	-25...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	2283 years acc. to SN 29500 (Ed. 99) 40 °C
Switching state	LED, Yellow

Mounting instructions


Mounting instructions/Description		
	Distance D	40 mm
	Distance W	55 mm
	Distance S	20 mm
	Distance G	40 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
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Accessories

Dimension drawing	Type	ID	
	RKC4T-2/TEL	6625010	Connection cable, M12 female connector, straight, 3-pin, cable length: 2 m, jacket material: PVC, black; cULus approval