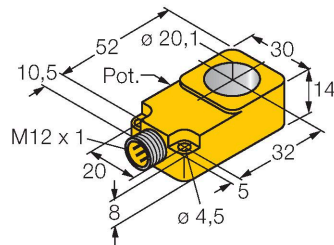


BI20R-Q14-LU-H1141

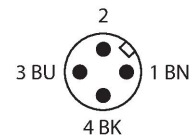
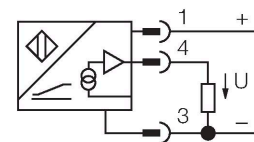
Inductive Sensor – With Analog Output



Features

- Rectangular, height 14 mm
- Plastic, PBT-GF30-V0
- Sensitivity adjusted via potentiometer
- Thickness measurement (e.g. screws, rivets, rods)
- Path measurement with conical actuator: Measuring range freely adjustable via cone length
- 3-wire, 15...30 VDC
- Analog output
- 0...10 V
- M12 x 1 male connector

Wiring diagram



Functional principle

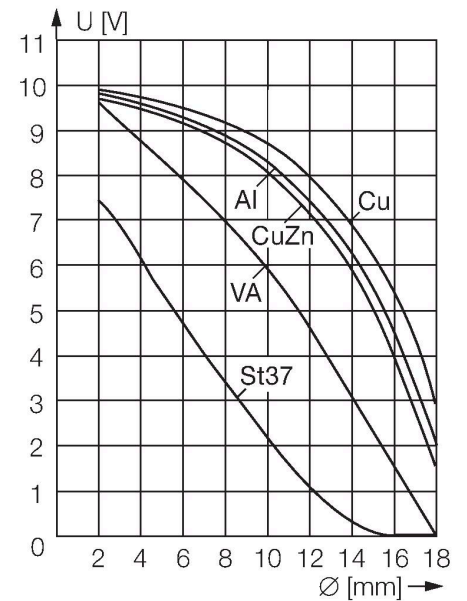
Inductive TURCK sensors with analog output accomplish simple control tasks. They provide a current, voltage or frequency signal proportional to the target's distance. The output signal is linear to the distance of the target over the entire sensing range.

Technical data

Type	BI20R-Q14-LU-H1141
ID	1535548
General data	
Inside ring diameter D	20.1 mm
Measuring range [A...B]	depending on the length of the cone
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeatability	$\leq 1\%$ of measuring range A - B
	0.5 %, after warm-up 0.5 h
Temperature drift	$\leq \pm 0.06\%$ /K
Electrical data	
Operating voltage	15...30 VDC
Residual ripple	$\leq 10\%$ U_{ss}
No-load current	8 mA
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes
Wire breakage/Reverse polarity protection	no / Complete
Output function	3-wire, Analog output
Voltage output	0...10 V
Load resistance voltage output	≥ 4.7 k Ω
Measuring sequence frequency	80 Hz
Mechanical data	
Design	Ring sensor, Q14
Dimensions	62.5 x 30 x 14 mm
Housing material	Plastic, PBT-GF30-V0
Electrical connection	Connector, M12 x 1
Coil body	plastic, POM

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	751 years acc. to SN 29500 (Ed. 99) 40 °C



Mounting instructions

Mounting instructions/Description		
	Distance D	45 mm
	Distance W	45 mm
	Distance S	14 mm
	Distance G	30 mm

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
	RKC4.301T-0.15-RSC4.334T/TXL	6631382	Extension cable, M12 female/male, straight, 4-pin, cable length: 0.15m, jacket material: PUR, black; cULus approval; Adapter cable for sensors with analog output on pin 2, for connection to analog inputs of fieldbus modules with 4-wire technology

Accessories

Dimension drawing	Type	ID	
	IM43-13-SR	7540041	<p>Trip amplifier; 1-channel; input 0/4... 20 mA or 0/2...10 V; supply of 2- or 3-wire transmitters/sensors; limit value adjustment via teach button; three relay outputs with one NO contact each; removable terminal blocks; 27 mm wide; universal voltage supply 20...250 VUC; further Limit value indicators are described in our "Interface Technology" catalog.</p>