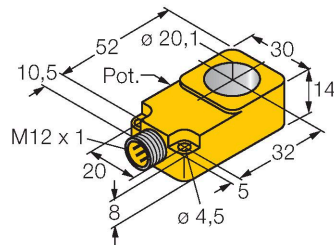


BI20R-Q14-LU-H1141

Inductive Sensor – With Analog Output



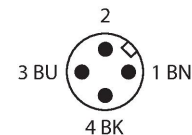
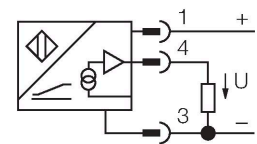
Features

- 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

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 U_B	15...30 VDC
Ripple U_{ss}	$\leq 10 \%$ U_{Bmax}
No-load current	≤ 8 mA
Isolation test voltage	0.5 kV
Short-circuit protection	yes
Wire break/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

Wiring diagram

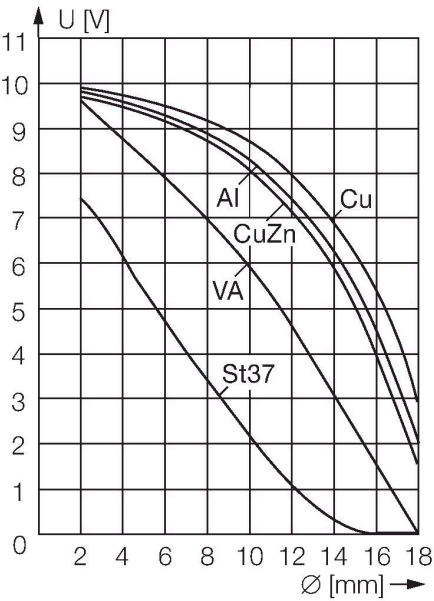


Functional principle

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

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



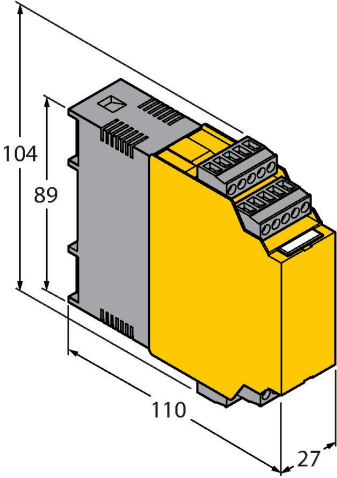
Mounting instructions

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	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.