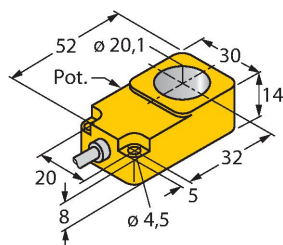


BI20R-Q14-LU

Inductive Sensor – With Analog Output



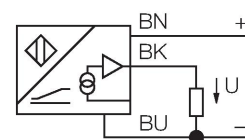
Features

- 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
- Cable connection

Technical data

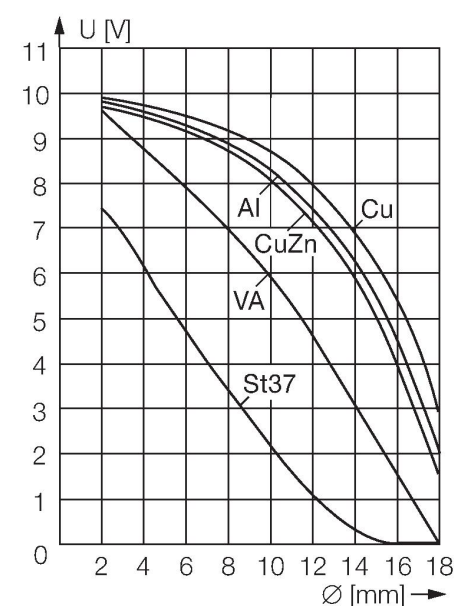
Type	BI20R-Q14-LU
ID	1535546
General data	
Inside ring diameter D	20.1 mm
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeatability	$\leq 1 \%$ of measuring range A - B
	0.5 %, after warm-up 0.5 h
Temperature drift	$\leq \pm 0.06 \%$ /K
Electrical data	
Operating voltage U_B	15...30 VDC
Ripple 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	52 x 30 x 14 mm
Housing material	Plastic, PBT-GF30-V0
Electrical connection	Cable
Cable quality	$\varnothing$ 5.2 mm, LifYY-11Y, PUR, 2 m
Core cross-section	3 x 0.34 mm ²
Coil body	plastic, POM

Wiring diagram



Functional principle

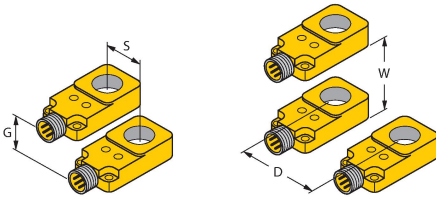
Inductive TURCK sensors with analog output accomplish simple control tasks. They provide a current, voltage or frequency signal proportional to the target's distance. The output signal is linear to the distance of the target over the entire sensing range.



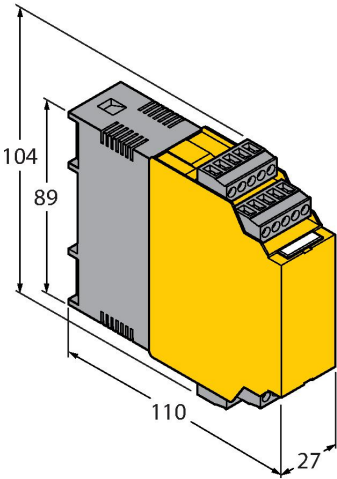
Technical data

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	
	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.