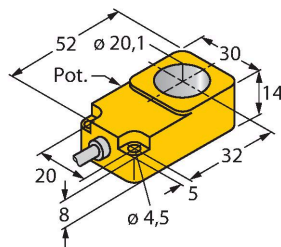


# BI20R-Q14-LU

## Inductive Sensor – With Analog Output



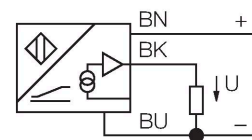
### Features

- 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

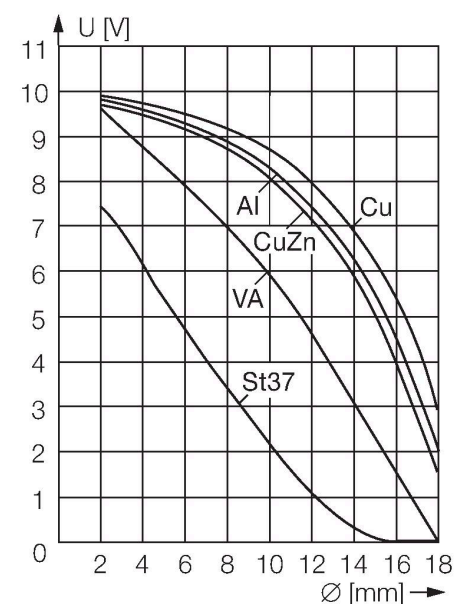
Type	BI20R-Q14-LU
ID	1535546
<b>General data</b>	
Inside ring diameter D	20.1 mm
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Repeatability	$\leq 1\%$ of measuring range  A - B  0.5 %, after warm-up 0.5 h
Temperature drift	$\leq \pm 0.06\%$ /K
<b>Electrical data</b>	
Operating voltage	15...30 VDC
Residual ripple	$\leq 10\%$ $U_{ss}$
No-load current	8 mA
Isolation test voltage	$\leq 0.5$ 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	$\geq 4.7$ k $\Omega$
Measuring sequence frequency	80 Hz
<b>Mechanical data</b>	
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 <sup>2</sup>

### Wiring diagram



### Functional principle

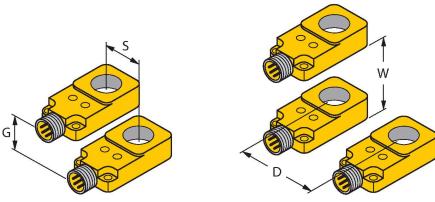
Inductive TURCK sensors with analog output accomplish simple control tasks. They provide a current, voltage or frequency signal proportional to the target's distance. The output signal is linear to the distance of the target over the entire sensing range.



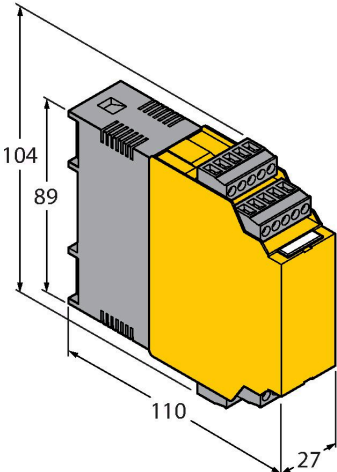
## Technical data

Coil body	plastic, POM
<b>Environmental conditions</b>	
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	<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>