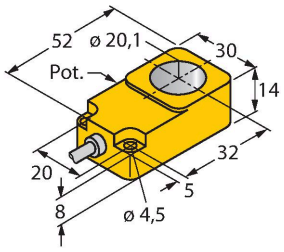
BI20R-Q14-LU
Inductive Sensor – With Analog Output



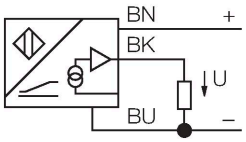
Technical data

Type	BI20R-Q14-LU
ID	1535546
General data	
Inside ring diameter D	20.1 mm
Secured operating distance	≤ (0.81 × Sn) mm
Repeatability	≤ 1 % of measuring range |A - B|
	0.5 %, after warm-up 0.5 h
Temperature drift	≤ ± 0.06 % / K
Electrical data	
Operating voltage	15…30 VDC
Residual ripple	≤ 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 kΩ
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	Ø 5.2 mm, LifYY-11Y, PUR, 2 m
Core cross-section	3 x 0.34 mm²

Features

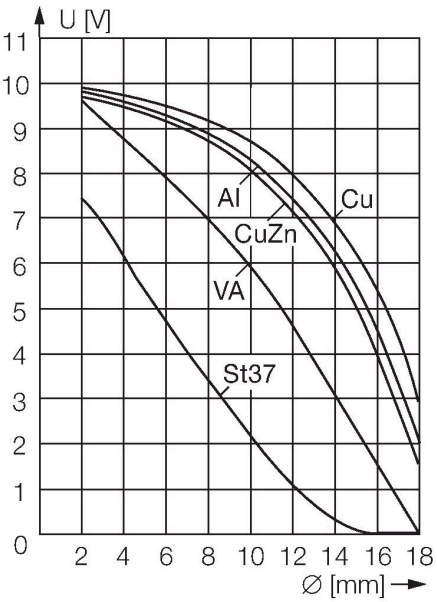
- Rectangular, height 14 mm
- Plastic, PBT-GF30-V0
- Sensitivity adjusted via potentiometer
- Thickness measurement (e.g. screws, rivets, rods)
- Path measurement with conical actuator: Measuring range freely adjustable via cone length
- 3-wire, 15…30 VDC
- Analog output
- 0…10 V
- Cable connection

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.



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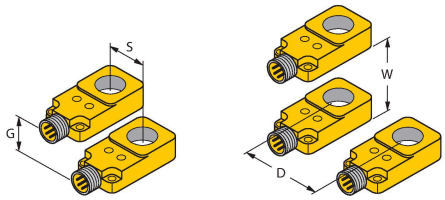
Technical data

Coil body	plastic, POM
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

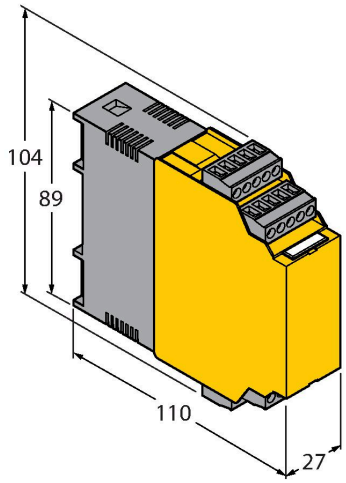
Mounting instructions

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.

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