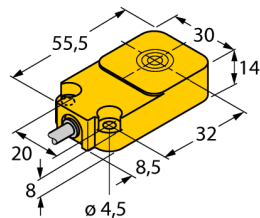


Inductive sensor with analog output BI10-Q14-LIU

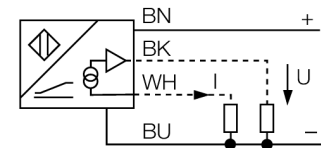
TURCK

Industrial
Automation



- Rectangular, height 14 mm
- Active face on top
- Plastic, PBT-GF30-V0
- 4-wire, 15...30 VDC
- Analog output
- 0...10 V and 0...20 mA
- Cable connection

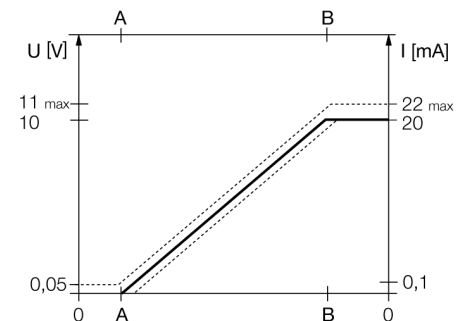
Wiring diagram



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.

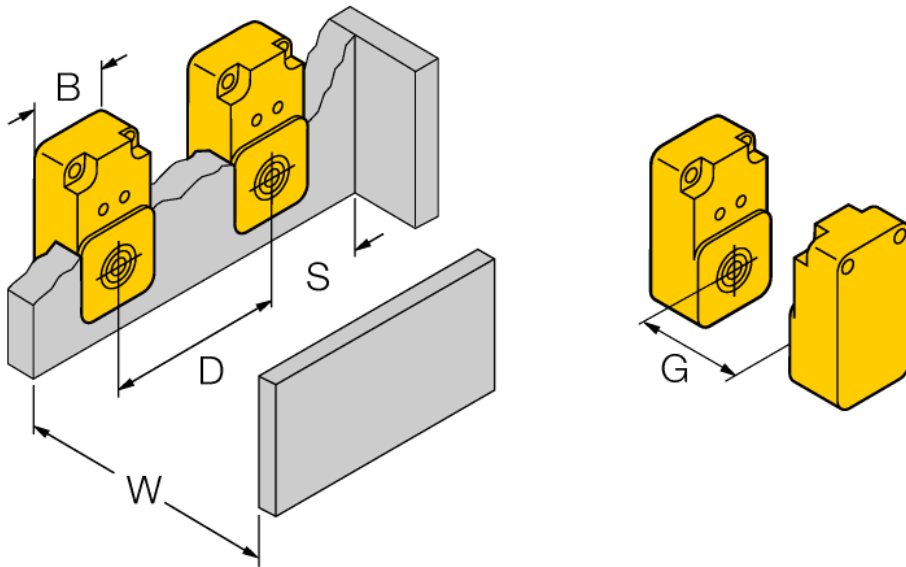
Measuring range



Type code	BI10-Q14-LIU
Ident no.	1534602
Measuring range [A...B]	3...8mm
Mounting condition	flush
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	≤ 1 % of measuring range A - B
	≤ 0.5 %, after warm-up 0.5 h
Reproducibility	≤ 50 μm
	≤ 25 μm, after a warm-up time of 0.5 h
Linearity deviation	≤ 3 %
Temperature drift	≤ ± 0.06 % / K
Ambient temperature	-25...+70 °C
Operating voltage	15...30VDC
Residual ripple	≤ 10 % U _{ss}
No-load current I ₀	≤ 8 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes
Wire breakage / Reverse polarity protection	yes/ complete
Output function	4-wire, analog output
Voltage output	0...10V
Current output	0...20mA
Load resistance voltage output	≥ 4.7 kΩ
Load resistance current output	≤ 0.4 kΩ
Measuring sequence frequency	140 Hz
Design	rectangular, Q14
Dimensions	52 x 30 x 14 mm
Housing material	plastic, PBT
Connection	cable
Cable quality	5.2 mm, LifYY-11Y, PUR, 2 m
Cable cross section	4 x 0.34 mm ²
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

**Inductive sensor
with analog output
BI10-Q14-LIU**

Distance D	45 mm
Distance W	24 mm
Distance S	30 mm
Distance G	48 mm
<hr/>	
Width of the active face B	30 mm



**Inductive sensor
with analog output
BI10-Q14-LIU**

Accessories

Type code	Ident no.	Description	Dimension drawing
IM43-13-SR	7540041	Limit value monitor; 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 monitors are described in our "Interface Technology" catalog.	
MW-Q14/Q20	6945006	Mounting bracket for rectangular Q14 or Q20; material VA 1.4301	
MH-Q14MONTAGEHÜLSEN	6950011	Mounted with active face downwards, for Q14	