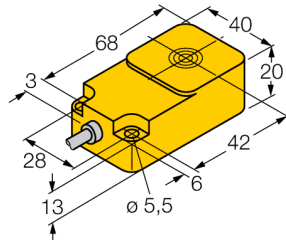


Inductive sensor with analog output BI15-Q20-LIU

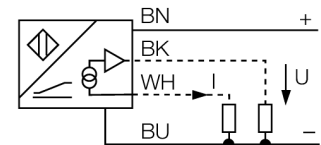
TURCK

Industrial
Automation



- Rectangular, height 20 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

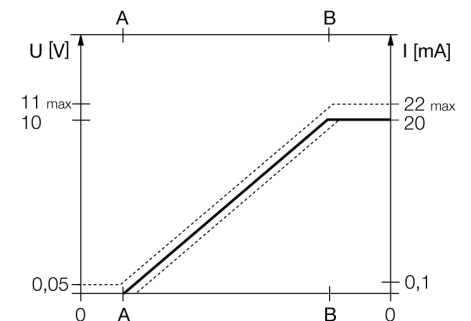
Wiring diagram



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	BI15-Q20-LIU
Ident no.	1534600
Measuring range [A...B]	4...11mm
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	≤ 70 µm
	≤ 35 µm, after a warm-up time of 0.5 h
Linearity deviation	≤ 3 % of full scale
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	110 Hz
Design	rectangular, Q20
Dimensions	68x 40x 20 mm
Housing material	Plastic, PBT
Connection	cable
Cable quality	5.2 mm, LiFY-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

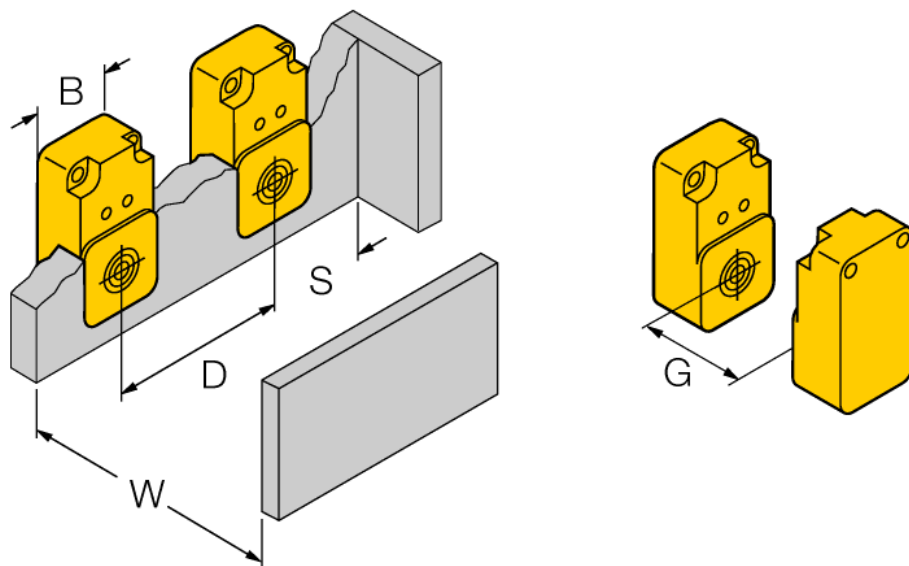
Inductive sensor with analog output BI15-Q20-LIU

TURCK

Industrial
Automation

Distance D	60 mm
Distance W	33 mm
Distance S	40 mm
Distance G	66 mm

Width of the active face B	40 mm
----------------------------	-------

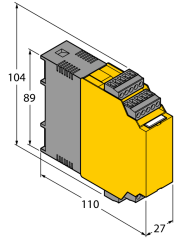
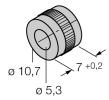


**Inductive sensor
with analog output
BI15-Q20-LIU**

TURCK

Industrial
Automation

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.	
MH-Q20MONTAGEHÜLSEN	6950010	Mounted with active face downwards, for Q20	
MW-Q14/Q20	6945006	Mounting bracket for rectangular Q14 or Q20; material VA 1.4301	