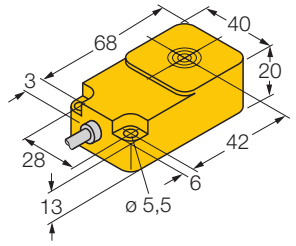
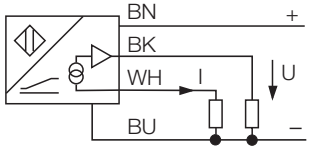
Inductive sensor
with analogue output
Bi15-Q20-LiU

TURCK
Industrial Automation



- **rectangular, height 20mm**
- **top active face**
- **Plastic, PBT-GF30-V0**
- **4-wire, 15…30 VDC**
- **analogue output**
- **0…10 V and 0…20 mA**
- **cable connection**

Wiring diagram

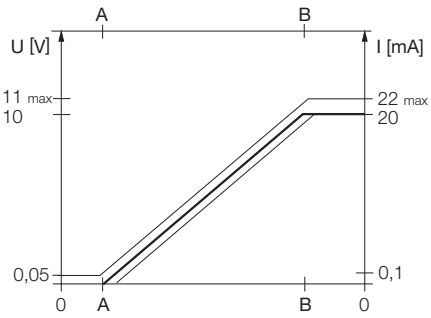


Type	Bi15-Q20-LiU
Ident-No.	1534600
Measuring range [A…B]	4… 11 mm
Mounting condition	flush
Correction factors	St37 = 1, V2A ~ 0.7, Ms ~ 0.4, Al ~ 0.3
Repeatability	1 % of measuring range |A - B| 0.5 %, after a warm-up time of 0.5 h
Reproducibility	70µm 35µm, after a warm-up time of 0.5 h
Linearity deviation	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, analogue output
voltage output	0… 10 V
Current output	0… 20 mA
Load resistance voltage output	≥ 4.7 kΩ
Load resistance current output	0.4 kΩ
Measuring sequence frequency	110 Hz
Output recovery time	12 ms
Housing	rectangular, Q20
Dimensions	68 x 40 x 20 mm
Housing material	plastic, PBT-GF30-V0
Material active face	plastic, PBT-GF30-V0
Connection	cable
Cable quality	Ø 5.2, LifYY-11Y, PUR, 2 m
Cable cross section:	4 x 0.34mm^2
Vibration resistance	55 Hz (1 mm)
Shock resistance	30g (11 ms)
Degree of protection	IP67

Functional principle

Simple control tasks can be accomplished with inductive TURCK sensors featuring an analogue output. They provide a current, voltage or frequency signal that is proportional to the target's distance. With TURCK's analogue sensors, this output signal is linear to the distance of the target over the entire sensing range.

Measuring range



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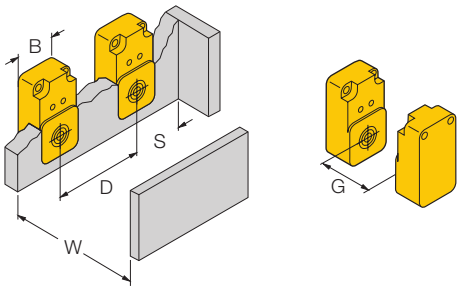
Mounting instructions	minimum distances
Distance D	60 mm
Distance W	33 mm
Distance S	40 mm
Distance G	66 mm

Width of the active face B	40 mm



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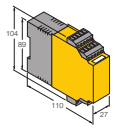
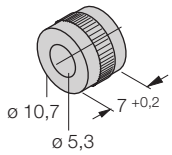
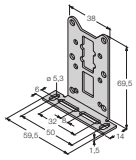
Accessories

Type code	Ident-No.	Short text	Dimension drawing
IM43-13-SR	7540041	limit value monitor; single 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 normally open contact each; removable terminal blocks; 27 mm wide; universal voltage supply 20…250 VUC; further limit value monitors are described in our "Interface Technology" catalogue.	
MH-Q20	6950010	for mounting with active face downwards	
MW-Q14/Q20	6945006	mounting bracket; material VA 1.4301	

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