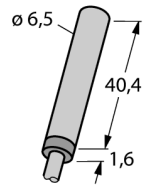


# Inductive sensor with analog output BI1,5-EH6,5-LU

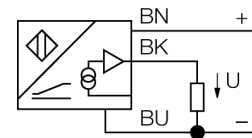
**TURCK**

Industrial  
Automation



- Smooth barrel, Ø 6.5 mm
- Stainless steel, 1.4404
- 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.

<b>Type code</b>	BI1,5-EH6,5-LU
Ident no.	1533002
<b>Measuring range [A...B]</b>	0.25...1.25mm
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	≤ 10 µm
	≤ 5 µm, after a warm-up time of 0.5 h
Linearity deviation	≤ 3 %
Temperature drift	≤ ± 0.06 % / K
Ambient temperature	-25...+70 °C
<b>Operating voltage</b>	15...30VDC
Residual ripple	≤ 10 % U <sub>ss</sub>
No-load current I <sub>0</sub>	≤ 8 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes
Wire breakage / Reverse polarity protection	yes/ complete
Output function	3-wire, analog output
Voltage output	0...10V
Load resistance voltage output	≥ 4.7 kΩ
Measuring sequence frequency	200 Hz
<b>Design</b>	smooth barrel, 6.5 mm
Dimensions	42 mm
Housing material	metal, V2A (1.4301)
Material active area	Plastic, PA
End cap	Plastic, PP
Connection	cable
Cable quality	4 mm, LiFY-11Y, PUR, 2 m
Cable cross section	3 x 0.25 mm <sup>2</sup>
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  
BI1,5-EH6,5-LU**

Distance D	16 mm
Distance W	4.5 mm
Distance T	3 x B
Distance S	12 mm
Distance G	9 mm

Diameter of the active area B      Ø 6.5 mm



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## 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.	