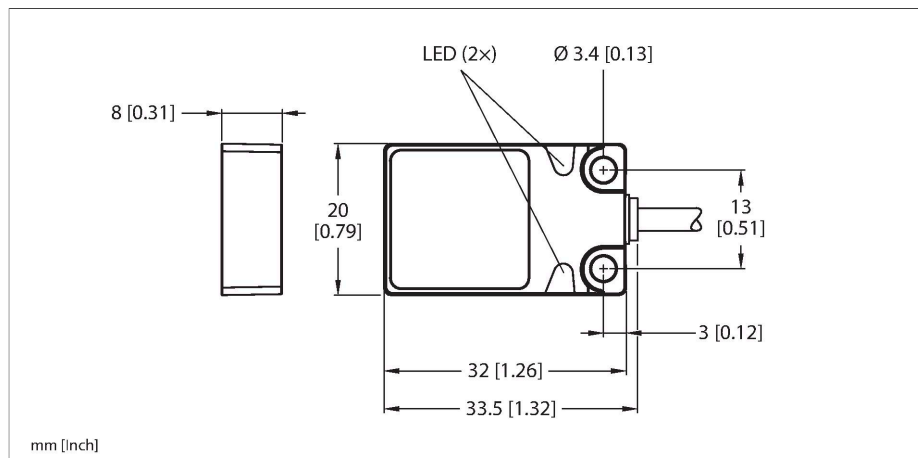


# BI7-Q08-LIU

## Inductive Sensor – With Analog Output



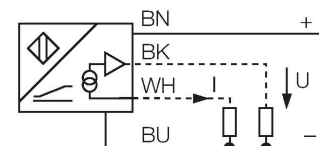
### Technical data

Type	BI7-Q08-LIU
ID	1534605
<b>General data</b>	
Measuring range	1...4 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	$\leq 1\%$ of measuring range  A - B
	0.5 %, after warm-up 0.5 h
Reproducibility	$\leq 30 \mu\text{m}$
	$\leq 15 \mu\text{m}$ , after a warm-up time of 0.5 h
Linearity deviation	$\leq 5\%$
Temperature drift	$\leq \pm 0.06\%/\text{K}$
<b>Electrical data</b>	
Operating voltage	15...30 VDC
Residual ripple	$\leq 10\% U_{ss}$
No-load current	8 mA
Isolation test voltage	$\leq 0.5 \text{ kV}$
Short-circuit protection	yes
Wire breakage/Reverse polarity protection	no / Complete
Output function	4-wire, Analog output
Voltage output	0...10 V
Current output	0...20 mA
Load resistance voltage output	$\geq 4.7 \text{ k}\Omega$
Load resistance current output	$\leq 0.4 \text{ k}\Omega$
Measuring sequence frequency	200 Hz

### Features

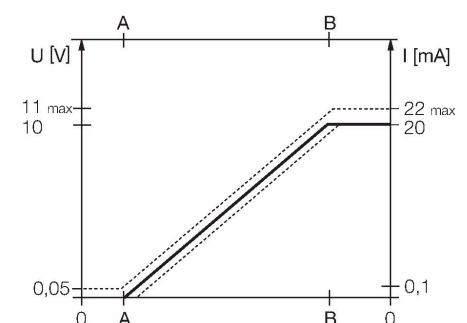
- Rectangular, height 8 mm
- Active face on top
- Metal, Zamak, nickel-plated
- 4-wire, 15...30 VDC
- Analog output
- 0...10 V and 0...20 mA
- Cable connection

### 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.



## Technical data

Mechanical data	
Design	Rectangular, Q08
Dimensions	32 x 20 x 8 mm
Housing material	Metal, Zamak, Nickel Plated
Active area material	Plastic, PP, yellow
Electrical connection	Cable
Cable quality	Ø 3 mm, Gray, Lif9Y-11Y, PUR, 2 m
Core cross-section	4 x 0.14 mm <sup>2</sup>
Environmental conditions	
Ambient temperature	-25...+70 °C
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP68
MTTF	751 years acc. to SN 29500 (Ed. 99) 40 °C

## Mounting instructions

Mounting instructions/Description		
	Distance D	40 mm
	Distance W	24 mm
	Distance S	1 × B
	Distance G	48 mm
	Width active area	20 mm
	B	

## 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.