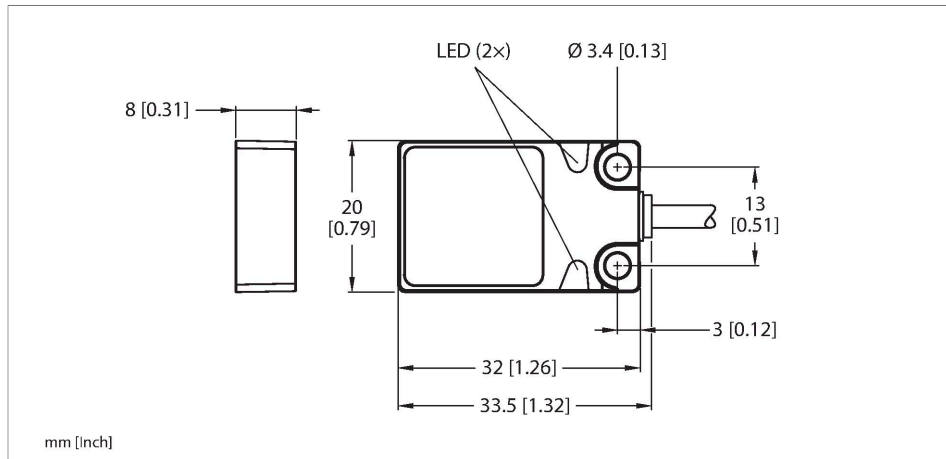


BI7-Q08-LIU

Inductive Sensor – With Analog Output



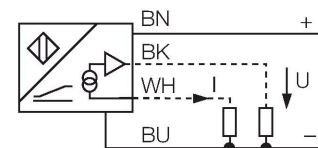
Technical data

Type	BI7-Q08-LIU
ID	1534605
General data	
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	$\leq \pm 0.06 \%$ /K
Electrical data	
Operating voltage	15...30 VDC
Residual ripple	$\leq 10 \%$ U_{ss}
No-load current	8 mA
Isolation test voltage	≤ 0.5 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

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

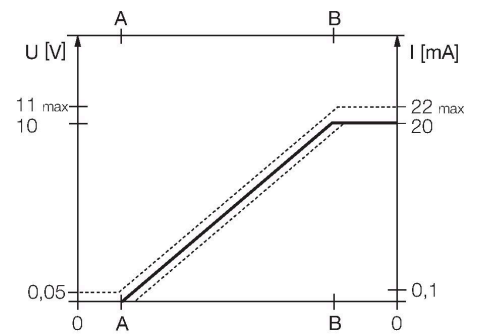


Functional principle

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.

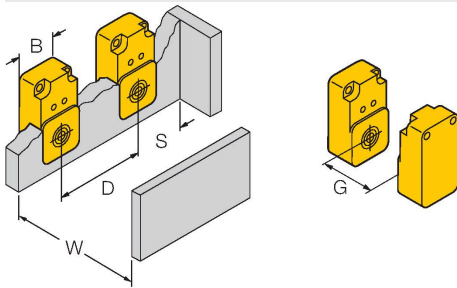
Technical data

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
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	$\varnothing 3 \text{ mm}$, Gray, Lif9Y-11Y, PUR, 2 m
Core cross-section	$4 \times 0.14 \text{ mm}^2$
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	$1 \times B$
Distance G	48 mm
Width active area B	20 mm