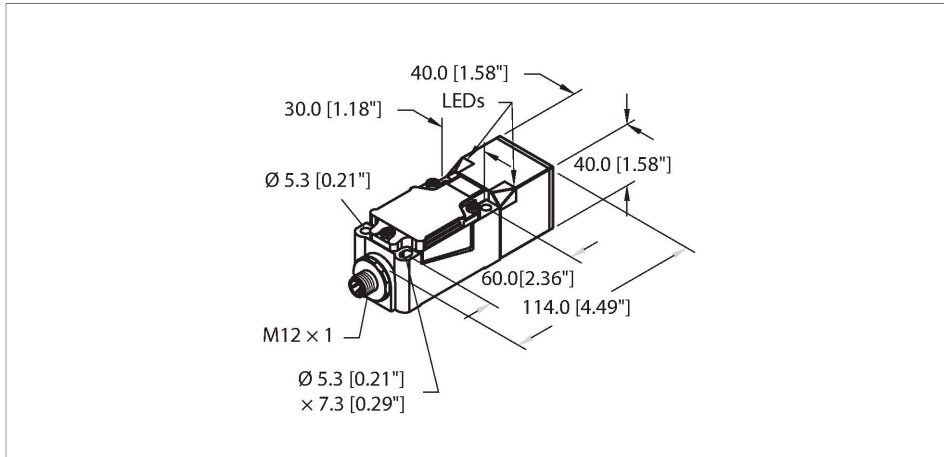


BI15-CP40-LIU-H1141

Inductive Sensor – With Analog Output



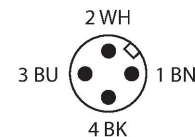
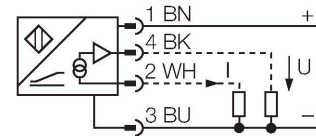
Features

- Rectangular, height 40 mm
- Variable orientation of active face in 9 directions
- Plastic, PBT-GF30-V0
- 4-wire, 15...30 VDC
- Analog output
- 0...10 V and 0...20 mA
- M12 x 1 male connector

Technical data

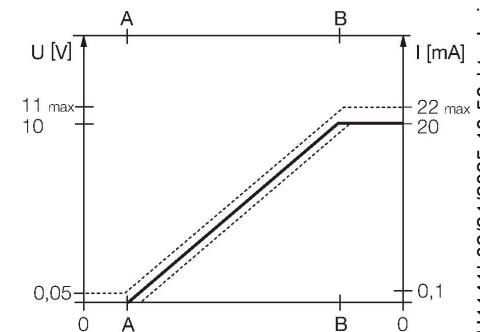
Type	BI15-CP40-LIU-H1141
ID	1535795
General data	
Measuring range	4...11 mm
Rated switching distance	15 mm
Mounting conditions	Flush
Secured operating distance	$\leq (0.81 \times S_n)$ mm
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	$\leq 1\%$ of measuring range A - B
	0.5 %, after warm-up 0.5 h
Reproducibility	$\leq 70\ \mu\text{m}$
	$\leq 35\ \mu\text{m}$, after a warm-up time of 0.5 h
Linearity deviation	$\leq 3\%$
Temperature drift	$\leq \pm 0.06\ \%/K$
Electrical data	
Operating voltage U_B	15...30 VDC
Ripple U_{rs}	$\leq 10\% U_{Bmax}$
No-load current	$\leq 8\ \text{mA}$
Isolation test voltage	0.5 kV
Short-circuit protection	yes
Wire break/reverse polarity protection	no/Complete
Output function	4-wire, Analog output
Voltage output	0...10 V

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.

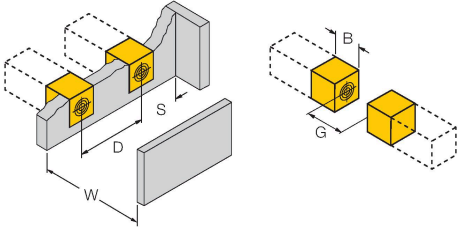


BI15-CP40-LIU-H1141 | 02/21/2025 13-56 | technical changes reserved

Technical data

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	110 Hz
Mechanical data	
Design	Rectangular, CP40
Dimensions	114 x 40 x 40 mm
Housing material	Plastic, PBT-GF30-V0, Black
Active area material	Plastic, PBT-GF30-V0, yellow
Electrical connection	Connector, M12 x 1
Clamping ability	$\leq 2.5 \text{ mm}^2$
Environmental conditions	
Ambient temperature	-25...+70 °C
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

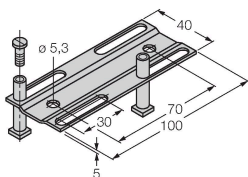
Mounting instructions

Mounting instructions/Description		
	Distance D	80 mm
	Distance W	33 mm
	Distance S	40 mm
	Distance G	66 mm
	Width active area B	40 mm

Accessories

JS025/037 69429

Adjusting bar for rectangular housings CK/CP40; material: VA 1.4301



BSS-CP40 6901318

Mounting clamp for rectangular housings 40 x 40 mm; material: Polypropylene

