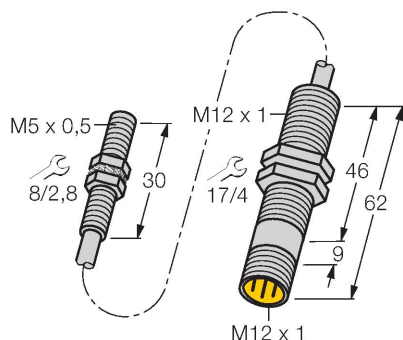


BI1.5-EG05-0.3-M12-SIU-H1141

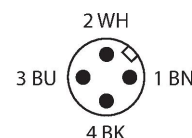
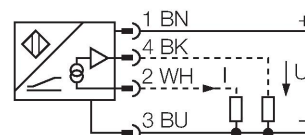
Inductive Sensor – With Analog Output



Features

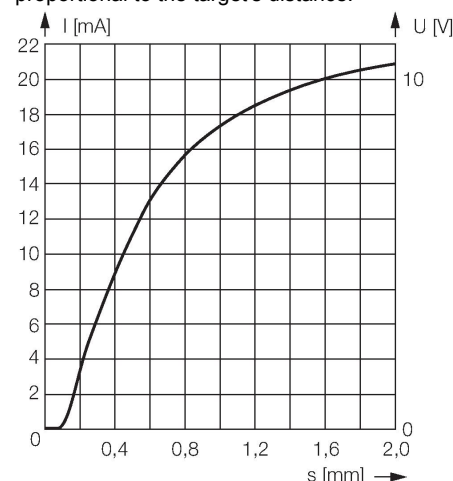
- Threaded barrel, M5 x 0.5
- Stainless steel, 1.4427 SO
- 4-wire, 15...30 VDC
- Analog output
- 0...10 V and 0...20 mA
- Cable with connector, M12 x 1

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.



Technical data

Type	BI1.5-EG05-0.3-M12-SIU-H1141
ID	1533005
General data	
Measuring range	0.1...1.5 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	$\leq 14 \mu\text{m}$
	$\leq 7 \mu\text{m}$, after a warm-up time of 0.5 h
Temperature drift	$\leq \pm 0.06 \%/K$
Electrical data	
Operating voltage U_B	15...30 VDC
Ripple U_{ss}	$\leq 10 \%$ 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, non-linear
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

Technical data

Mechanical data	
Design	Threaded barrel, M5 x 0.5
Dimensions	30 mm
Housing material	Stainless steel, 1.4427 SO
Material coupling nut	metal, CuZn, nickel-plated
Max. tightening torque of housing nut	5 Nm
Electrical connection	Connector, M12 × 1
Cable quality	Ø 2.4 mm, shielded, PVC, 0.3 m
Core cross-section	1 x 0.08 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

The image contains three technical diagrams illustrating the mounting of a component. The top diagram shows a side view of a component with a central hole, with dimension T indicating the distance from the edge to the hole. The middle diagram shows a top view of the component, with dimension G indicating the distance between two holes. The bottom diagram shows a perspective view of the component, with dimensions D, S, and W indicating the distance from the edge to the hole, the distance between the holes, and the width of the component, respectively.

Distance D	8 mm
Distance W	4.5 mm
Distance T	3 x B
Distance S	6 mm
Distance G	9 mm
Diameter active area B	Ø 5 mm

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.