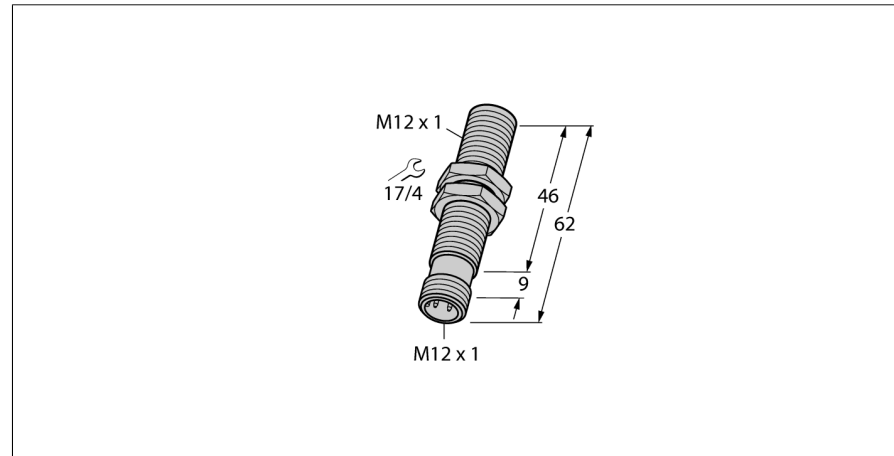
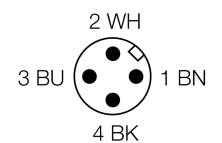
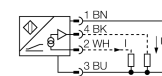


**Inductive sensor  
with analog output  
BI4-M12-LIU-H1141**



- Threaded barrel, M12 x 1
- Chrome-plated brass
- Analog+
- Extended operating range
- 4-wire, 15...30 VDC
- Analog output
- 0...10 V and 0...20 mA
- Male M12 x 1

**Wiring diagram**

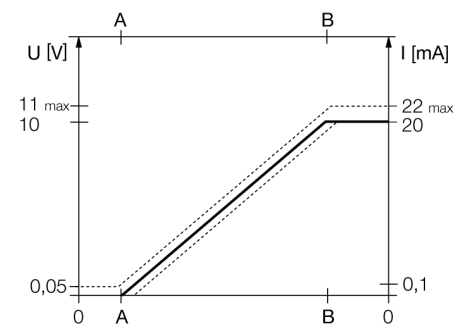


<b>Type code</b>	BI4-M12-LIU-H1141
Ident no.	1535531
<b>Measuring range [A...B]</b>	0.5...3mm
Mounting condition	flush
Correction factors	St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4
Repeatability	≤ 1 % of measuring range  A - B  ≤ 0.5 %, after warm-up 0.5 h
Reproducibility	≤ 25 µm ≤ 12.5 µm, after a warm-up time of 0.5 h
Linearity deviation	≤ 5 %
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	4-wire, Analog output
Voltage output	0...10V
Current output	0...20mA
Load resistance voltage output	≥ 4.7 kΩ
Load resistance current output	≤ 0.4 kΩ
Measuring sequence frequency	200 Hz
<b>Design</b>	threaded barrel, M12 x 1
Dimensions	62 mm
Housing material	metal, CuZn, chrome-plated
Material active face	Plastic, PA
Max. tightening torque housing nut	10 Nm
Connection	male, M12 x 1
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

**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.

**Measuring range**



**Inductive sensor  
with analog output  
BI4-M12-LIU-H1141**

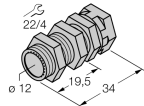
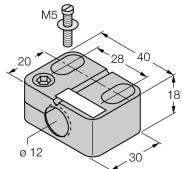
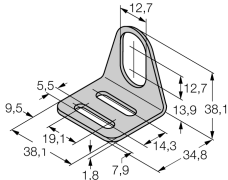
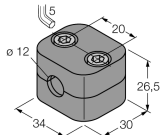
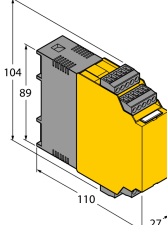
Distance D	24 mm
Distance W	9 mm
Distance T	3 x B
Distance S	18 mm
Distance G	18 mm

Diameter of the active area B                     $\varnothing$  12 mm



**Inductive sensor  
with analog output  
BI4-M12-LIU-H1141**

**Accessories**

Type code	Ident no.	Description	Dimension drawing
QM-12	6945101	Quick-mount bracket with dead-stop; material: Chrome-plated brass Male thread M16 x 1. Note: The switching distance of proximity switches can be reduced by the use of quick-mount brackets.	 A technical drawing of a quick-mount bracket. It is a cylindrical component with a male thread on one end. Dimensions shown: diameter is 12 mm, length of the main body is 19.5 mm, and the total length including the thread is 34 mm. The thread is labeled as 22/4.
BST-12B	6947212	Fixing clamp for threaded barrel devices, with dead-stop; material: PA6	 A technical drawing of a rectangular fixing clamp. It has a circular opening on one side. Dimensions shown: width is 20 mm, total width is 40 mm, height is 18 mm, and depth is 30 mm. A hole for an M5 screw is shown on the top surface.
MW-12	6945003	Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)	 A technical drawing of a U-shaped mounting bracket. Dimensions shown: height of the vertical part is 12.7 mm, width of the base is 34.8 mm, and the distance between the vertical parts is 19.1 mm. Other dimensions include 5.5 mm, 9.5 mm, 38.1 mm, 1.8 mm, 7.9 mm, 14.3 mm, 13.9 mm, and 38.1 mm.
BSS-12	6901321	Mounting bracket for smooth and threaded barrel devices; material: Polypropylene	 A technical drawing of a cylindrical mounting bracket. It has a circular opening on one side. Dimensions shown: diameter is 12 mm, width is 20 mm, height is 26.5 mm, and depth is 30 mm. A hole for an M5 screw is shown on the top surface.
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.	 A technical drawing of a rectangular limit value monitor. Dimensions shown: height is 104 mm, width is 110 mm, and depth is 27 mm. A teach button is visible on the top surface.

**Inductive sensor  
with analog output  
BI4-M12-LIU-H1141**

**Wiring accessories**

Type code	Ident no.	Description	Dimension drawing
RKC4T-2/TEL	6625010	Connection cable, female M12, straight, 3-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>	