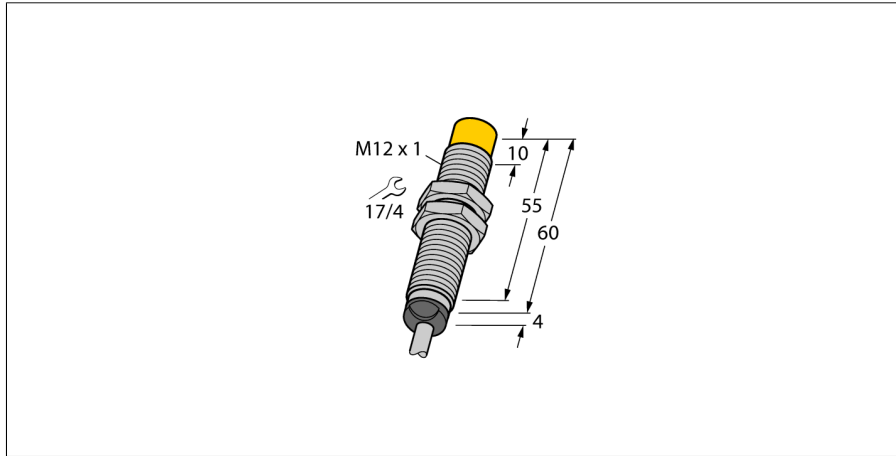
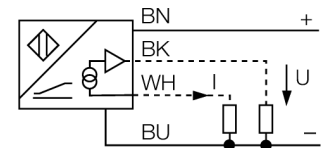


**Inductive sensor  
with analog output  
NI5-M12-LIU**



- Threaded barrel, M12 x 1
- Chrome-plated brass
- 4-wire, 15...30 VDC
- Analog output
- 0...10 V and 0...20 mA
- Cable connection

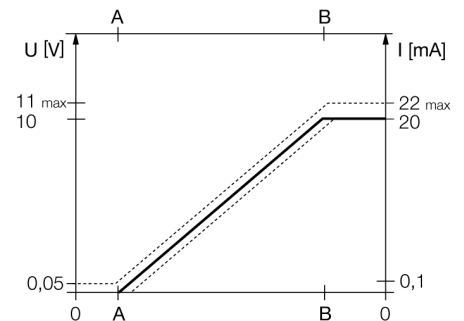
**Wiring diagram**



**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.

**Measuring range**



<b>Type code</b>	NI5-M12-LIU
Ident no.	1535536
<b>Measuring range [A...B]</b>	0.5...4mm
Mounting condition	non-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	≤ 35 μm
	≤ 17.5 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	100 Hz
<b>Design</b>	threaded barrel, M12 x 1
Dimensions	64 mm
Housing material	metal, CuZn, chrome-plated
Material active area	Plastic, PA
End cap	Plastic, EPTR
Max. tightening torque housing nut	10 Nm
Connection	cable
Cable quality	5.2 mm, LifYY, PVC, 2 m
Cable cross section	4 x 0.34 mm <sup>2</sup>
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

**Inductive sensor  
with analog output  
NI5-M12-LIU**

Distance D	36 mm
Distance W	12 mm
Distance T	3 x B
Distance S	18 mm
Distance G	24 mm
Distance N	8 mm

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

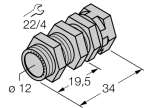
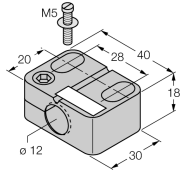
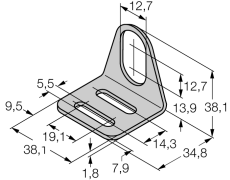
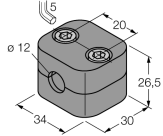
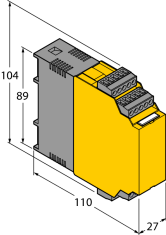


**Inductive sensor  
with analog output  
NI5-M12-LIU**

**TURCK**

Industrial  
Automation

**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 top.
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 14.3 mm. Other dimensions include 5.5, 9.5, 19.1, 38.1, 7.9, 1.8, 13.9, 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 34 mm, height is 26.5 mm, and depth is 30 mm. A hole for an M5 screw is shown on top.
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, depth is 89 mm, and width is 110 mm. The device is 27 mm wide.