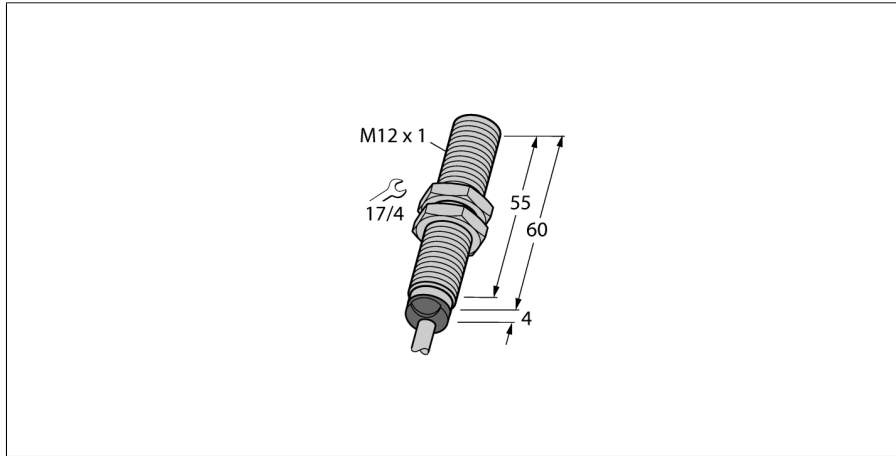
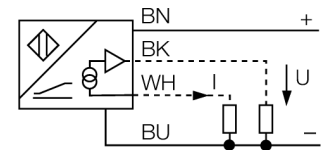


**Inductive sensor  
with analog output  
BI2-M12-LIU**



- 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**



|                  |             |
|------------------|-------------|
| <b>Type code</b> | BI2-M12-LIU |
| Ident no.        | 1535534     |

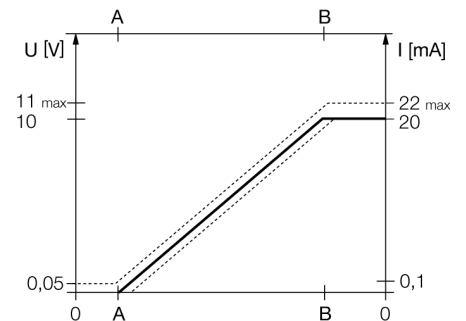
|                                |   |
|--------------------------------|---|
| <b>Measuring range [A...B]</b> | 1...2.5mm   |
| Mounting condition             | flush   |
| Correction factors             | St37 = 1; Al = 0.3; stainless steel = 0.7; Ms = 0.4 |
| Repeatability                  | ≤ 1 % of measuring range  A - B                     |
|                                | ≤ 0.5 %, after warm-up 0.5 h                        |
| Reproducibility                | ≤ 15 µm   |
|                                | ≤ 7.5 µm, after a warm-up time of 0.5 h             |
| Linearity deviation            | ≤ 3 %   |
| Temperature drift              | ≤ ± 0.06 % / K                                      |
| Ambient temperature            | -25...+70 °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.

|   |                        |
|---|------------------------|
| <b>Operating voltage</b>                    | 15...30VDC             |
| Residual ripple                             | ≤ 10 % U <sub>is</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                 |

**Measuring range**



|                                    |   |
|------------------------------------|---|
| <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  
BI2-M12-LIU**

|            |       |
|------------|-------|
| 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      Ø 12 mm

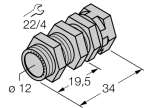
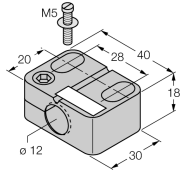
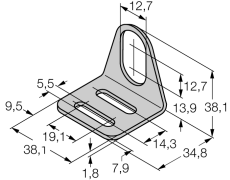
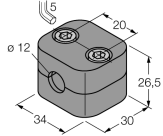
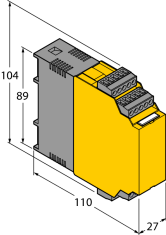


**Inductive sensor  
with analog output  
BI2-M12-LIU**

**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.   |    |
| BST-12B    | 6947212   | Fixing clamp for threaded barrel devices, with dead-stop; material: PA6  |    |
| MW-12      | 6945003   | Mounting bracket for threaded barrel devices; material: Stainless steel A2 1.4301 (AISI 304)   |  |
| BSS-12     | 6901321   | Mounting bracket for smooth and threaded barrel devices; material: Polypropylene   |  |
| 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. |  |