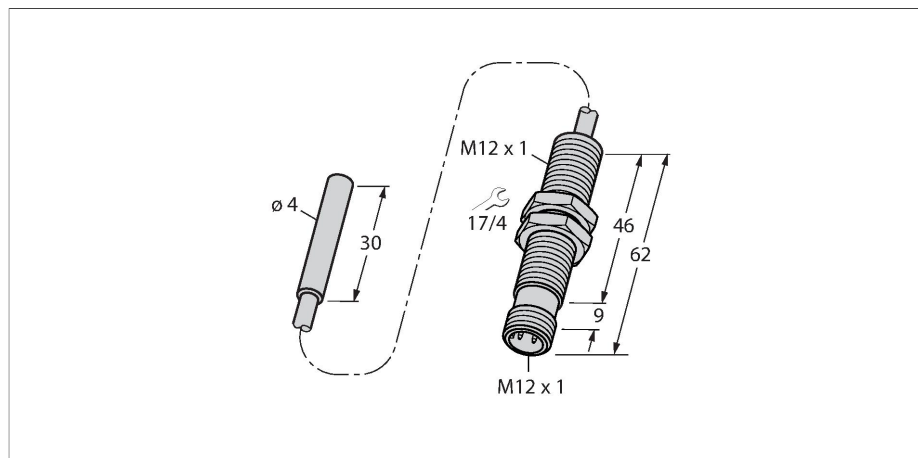


# BI1.5-EH04-0.3-M12-SIU-H1141

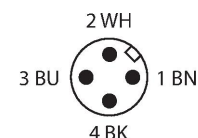
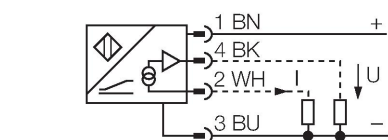
## Inductive Sensor – With Analog Output



### Features

- Smooth barrel, Ø 4 mm
- Stainless steel, 1.4427
- 4-wire, 15...30 VDC
- Analog output
- 0...10 V and 0...20 mA
- Cable with connector, M12 × 1

### Wiring diagram

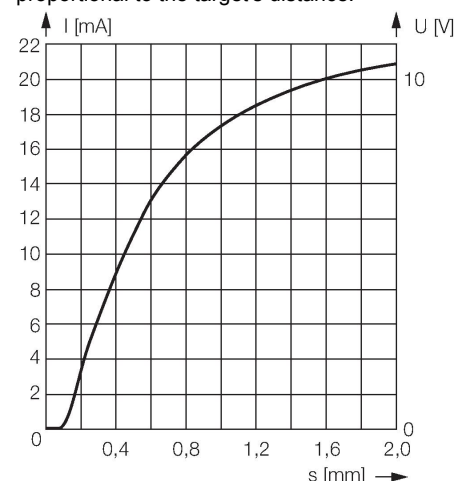


### Technical data

|                                        |                                                     |
|----------------------------------------|-----------------------------------------------------|
| Type                                   | BI1.5-EH04-0.3-M12-SIU-H1141                        |
| ID                                     | 1533001                                             |
| <b>General data</b>                    |                                                     |
| 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                        | $\leq 14$ µm                                        |
|                                        | $\leq 7$ µm, after a warm-up time of 0.5 h          |
| Temperature drift                      | $\leq \pm 0.06$ %/K                                 |
| <b>Electrical data</b>                 |                                                     |
| Operating voltage $U_B$                | 15...30 VDC                                         |
| Ripple $U_{ss}$                        | $\leq 10$ % $U_{Bmax}$                              |
| No-load current                        | $\leq 8$ 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         | $\geq 4.7$ kΩ                                       |
| Load resistance current output         | $\leq 0.4$ kΩ                                       |
| Measuring sequence frequency           | 200 Hz                                              |

### 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

| Mechanical data          |                                           |
|--------------------------|-------------------------------------------|
| Design                   | Smooth barrel, 4 mm                       |
| Dimensions               | 30 mm                                     |
| Housing material         | Stainless steel, 1.4427 SO                |
| Active area material     | Plastic, PA12-GF30                        |
| Material coupling nut    | metal, CuZn, nickel-plated                |
| Electrical connection    | Connector, M12 × 1                        |
| Cable quality            | Ø 2.4 mm, shielded, PVC, 0.3 m            |
| Core cross-section       | 1 x 0.08 mm <sup>2</sup>                  |
| 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

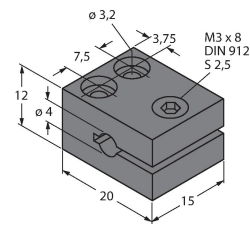
The image contains three isometric diagrams illustrating the mounting of a device. The top diagram shows a side view of the device being mounted onto a vertical plate. It labels the distance between two mounting holes as 'D', the width of the device as 'W', and the thickness of the mounting plate as 'S'. The bottom left diagram shows a front view of the device, labeling the height of the mounting plate as 'T'. The bottom right diagram shows a rear view of the device, labeling the distance from the mounting surface to the center of the active area as 'G'.

|                        |        |
|------------------------|--------|
| 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 4 mm |

Accessories

|       |       |
|-------|-------|
| MBS40 | 69477 |
|-------|-------|

Fixing clamp; material mounting  
block: Anodized aluminium



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. |