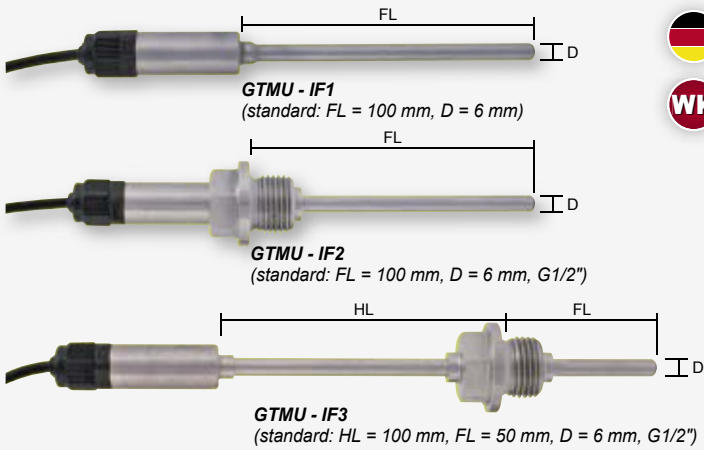


Temperature transmitter with digital adjustment

Analog Pt100-transmitter with digital adjustment



**GTMU - IF1**

Temperature transmitter with digital adjustment

**GTMU - IF2**

Temperature transmitter with digital adjustment

**GTMU - IF3**

Temperature transmitter with digital adjustment

| Specification:   |  |
|--|--|
| <b>Measuring range:</b>                                      | The probe length FL has to be chosen long enough, that the allowable temperature range of the electronics situated in the tube sleeve is not exceeded. |
| <b>GTMU - IF1 (standard):</b>                                | -30.0 ... +100.0 °C  |
| <b>GTMU - IF2 (standard):</b>                                | -30.0 ... +100.0 °C  |
| <b>GTMU - IF3 (standard):</b>                                | -70.0 ... +400.0 °C  |
|  | other measuring ranges (max. -200 ... +500 °C) upon request  |
| <b>Measuring probe:</b>                                      | internal Pt1000-sensor   |
| <b>Accuracy: (at nominal temperature = 25 °C)</b>            |  |
| <b>Electronic:</b>   | ±0.2 % of measuring value ±0.2 °C  |
| <b>Measuring probe:</b>                                      | standard: DIN class B<br>optionally higher sensor accuracy available   |
| <b>Output signal:</b>  | 4 ... 20 mA (2-wire)   |
| <b>Auxiliary energy:</b>                                     | U <sub>v</sub> = 10 ... 30 V DC  |
| <b>Permissible burden:</b>                                   | R <sub>A</sub> ≤ (U <sub>v</sub> - 10 V) / 0,022 A [R <sub>A</sub> in Ohm, U <sub>v</sub> in V]  |
| <b>Scaling:</b>  | the transducer can be scaled freely within the measuring ranges via GTMU-IF programming tool.  |
| <b>Operating temperature of electronic (in tube sleeve):</b> | -25 ... 60 °C  |
| <b>Housing:</b>  | stainless steel housing  |
| <b>Dimensions:</b>   | depending on sensor construction   |
| <b>tube sleeve:</b>  | Ø 15 x 35 mm (without screwing)  |
| <b>tube length FL:</b>                                       | 100 or 50 mm or on customer requirement  |
| <b>tube diameter D:</b>                                      | Ø 6 mm or on customer requirement (available Ø: 4, 5, 6 and 8 mm)  |
| <b>collar tube length HL:</b>                                | 100 mm or on customer requirement  |
| <b>thread:</b>   | G1/2" or on customer requirement (available threads M8x1, M10x1, M14x1,5, G1/8", G1/4", G3/8", G1/2", G3/4")   |
| <b>Electric connection:</b>                                  | approx. 1 m long 4-pin cable (2 x current loop, 2 x interface)   |

**Option:**

- **FL=...:**  
longer tube
- **HL=...:**  
longer collar tube
- **D=...:**  
other tube diameter
- **G=...:**  
other thread
- **MB=...:**  
other measuring ranges, set by factory
- **M12:**  
electric connection: M12 plug



**Accessories and spare parts:**

**GTMU-IF - Programming tool**  
USB-interface adaptor for GTMU-IF, incl. configuration software



**T03 BU / WE \*1**

(transmitter 0-10 V, set by our works)

\*1 = please specify design-type desired on your order.  
e.g. T03BU, Pt100 3-wire, 0 ... 10 V = 0 - 250 °C

**General:**  
These transmitter are designed for industrial applications and are used to measure the temperature through Pt100 resistance thermometers in 2-/3-wire circuits connections.  
The 0 ... 10 V output signal is linear with temperature.  
The advantages of a continuous analog signal path and those of digital adjustment have been combined in the realization of this transmitter series.

| Specification:                               |   |
|--|---|
| <b>Measurement input:</b>                    | Pt100 (DIN EN60751)   |
| <b>Range limits:</b>                         | -200 ... +850 °C, with digital adjustment   |
| <b>Measuring span:</b>                       | 40 ... 1050 K   |
| <b>Zero shift:</b>                           | at span < 75 K: -40, -20, 0, 20 or 40 °C<br>at span = 75 K: ± 50 °C<br>at span > 75 K: ± (span * 0.2 + 35 °C) |
| <b>Sensor connection:</b>                    | 2- or 3-wire connection   |
| <b>Measuring current:</b>                    | < 0.5 mA  |
| <b>Max. perm. line resistance (3-wire):</b>  | 11 Ohm per conductor  |
| <b>Sampling time:</b>                        | continuous because of analog signal path  |
| <b>Output signal:</b>                        | 0 ... 10 Volt, 3-wire technology  |
| <b>Setting time on a temperature change:</b> | ≤ 10 ms   |
| <b>Transfer characteristic:</b>              | linear with temperature   |
| <b>Transfer accuracy:</b>                    | ±0.2 % FS   |
| <b>Calibration accuracy:</b>                 | ±0.2 °C or ±0.2 % of measuring span   |
| <b>Supply voltage: U<sub>b</sub></b>         | 15 ... 30 V DC  |
| <b>Supply voltage error:</b>                 | ±0.01 % FS / V  |
| <b>Permissible load R<sub>L</sub>:</b>       | R <sub>L</sub> ≥ 10 kOhm  |
| <b>Load error:</b>                           | ±0.1 % FS   |
| <b>Operating temperature:</b>                | -40 ... +85 °C  |
| <b>Relative humidity:</b>                    | 0 ... 95 % RH (non condensing)  |
| <b>Storage temperature:</b>                  | -40 ... +100 °C   |
| <b>Electromagnetic compatibility (EMC):</b>  | conforming to CE acc. to DIN EN 61326   |
| <b>Electric connection:</b>                  | via terminals, cross section of connection terminals max. 1.75 mm <sup>2</sup>                                |
| <b>Housing:</b>                              | PC-housing, suitable for installation in connection head acc. to DIN 43729 form B.                            |
| <b>Operating position:</b>                   | unrestricted  |
| <b>Dimensions:</b>                           | Ø 44 mm x 21 mm   |
| <b>IP-rating:</b>                            | housing: IP54, connection terminals: IP00   |
| <b>Weight:</b>                               | approx. 45 g  |

**Accessories and spare parts:**

**Rail adapter**  
(rail adapter for snap-on to top-hat rail)

**Programming tool for T03BU**

The programming tool consists of: configurations software, connection cable USB