T37.0.0X.6C-03

GREISINGER electronic

EN

Operating Manual Temperatur Transmitter

As of version 1.0

GTMU – IF ...

Made in Germany

WEEE-Reg.-Nr. DE 93889386

GREISINGER electronic GmbH
D - 93128 Regenstauf, Hans-Sachs-Straße 26
Tel.: 09402 / 9383-0, Fax: 09402 / 9383-33, eMail: info@greisinger.de

1 General Note

Lesen Sie dieses Dokument aufmerksam durch und machen Sie sich mit der Bedienung des Gerätes vertraut, bevor Sie es einsetzen. Bewahren Sie dieses Dokument griffbereit auf, um im Zweifelsfalle nachschlagen zu können.

2 Safety instructions

This device has been designed and tested in accordance with the safety regulations for electronic devices.

ATTENTION: However, its trouble-free operation and reliability cannot be guaranteed unless the standard safety measures and special safety advises given in this manual will be adhered to when using the device.

1. Trouble-free operation and reliability of the device can only be guaranteed if the device is not subjected to any other climatic conditions than those stated under "Specification".
2. General instructions and safety regulations for electric, light and heavy current plants, including domestic safety regulations (e.g. VDE), have to be observed.
3. If device is to be connected to other devices (e.g. via PC) the circuitry has to be designed most carefully. Internal connection in third party devices (e.g. connection GND and earth) may result in not-permissible voltages impairing or destroying the device or another device connected.
4. If there is a risk whatsoever involved in running it, the device has to be switched off immediately and to be marked accordingly to avoid re-starting.

   Operator safety may be a risk if:
   - there is visible damage to the device
   - the device is not working as specified
   - the device has been stored under unsuitable conditions for a longer time

   In case of doubt, please return device to manufacturer for repair or maintenance.

3 Warning

WARNING: Do not use this product as safety or emergency stop devices, or in any other application where failure of the product could result in personal injury or material damage.

Failure to comply with these instructions could result in death or serious injury and material damage.

4 Specification

Measuring range: please refer to type plate
- **GTMU – IF1** (standard): -30,0 ... +100,0 °C
- **GTMU – IF2** (standard): -30,0 ... +100,0 °C
- **GTMU – IF3** (standard): -70,0 ... +400,0 °C
- Optional meas. ranges: max. -200,0 ... +500,0°C

Measuring probe: internal Pt1000-sensor

Accuracy: (at nominal temperature) ±0,2% of meas. value ±0,2°C (GTMU-IF1, GTMU-IF2)
±0,3% of meas. value ±0,2°C (GTMU-IF3)

Internal resolution: 0,025 °C

Adjusting: via interface (with programming tool) by entering offset and scale.

Output signal: 4 – 20 mA (2-wire)
- **Auxiliary energy:** (supply voltage) Uv = 10 ... 30 V DC
- **Permissible burden:** RA < (Uv – 10 V) / 0.022 A [RA at Ohm, Uv at V]
- **Transfer accuracy:** ±0,2% of output value ±0,2% FS
- **Supply effects:** ≤ ±0.01 % / V
- **Temperature effect:** ≤ ±0.01 % / K

Scaling: via interface (with programming tool) by entering values for 4mA and 20mA output.
- **recommended min. meas. range:** 50 °C

Ambient conditions for electronic (in sleeve)**:**
- **Nominal temperature:** 25°C
- **Operating temperature:** -25 to 70°C
  During operation please take care, that even at higher temperatures at the sensor tube (>70°C) the allowable temperature range of the electronics, placed in the sleeve, may not exceed!
- **Relative humidity:** 0 to 100 %RH
- **Storage temperature:** -25 to 70°C

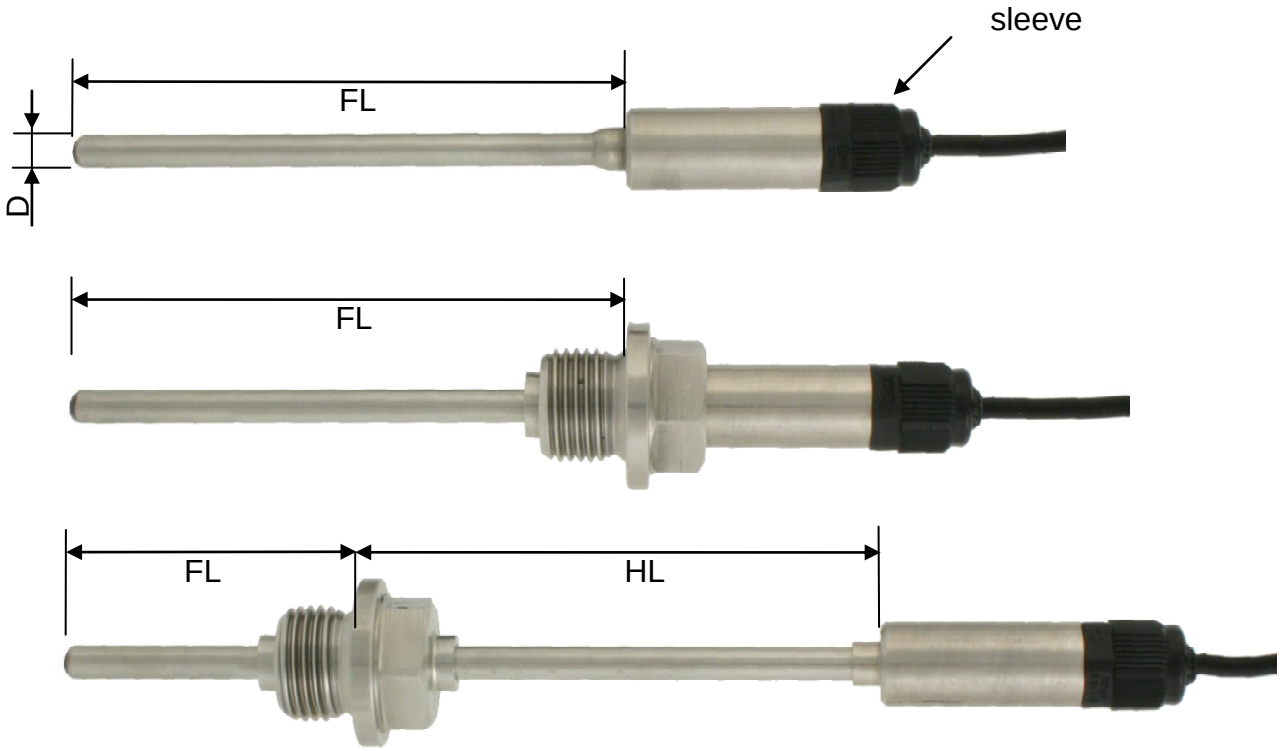
Housing: stainless steel housing
- **Dimensions:** *depending on sensor construction*
- Sleeve: Ø 15 x 35 mm (without screwing)
- Tube length FL: 100 mm or 50 mm or on customer requirement
- Tube diameter D: Ø 6 mm or on customer requirement (available Ø: 4, 5, 6 and 8 mm)
- Collar tube length HL: 100 mm or on customer requirement
- Thread: G1/2“ or on customer requirement (available threads: M8x1, M10x1, M14x1.5, G1/8“, G1/4“, G3/8“, G3/4“)
- IP rating: IP67

Electrical connection: via 4-pin connection cable (2 x current loop, 2 x interface)
- Cable length: 1m or on customer requirement
- Cable assignment: current loop: +Ub = green, -Ub = yellow
  interface: GND = brown, Data = white

EMC: The device corresponds to the essential protection ratings established in the Regulations of the Council for the Approximation of Legislation for the member countries regarding electromagnetic compatibility (2004/108/EG). In accordance with EN61326 +A1 +A2 (appendix A, class B), additional errors: < 1% FS. The tube have to be protected sufficiently against ESD pulses, if the device is used in areas with risk of ESD. When connecting long leads adequate measures against voltage surges have to be taken.

5 Available design types

Design type 1: standard: FL = 100mm, D = 6 mm
Design type 2: standard: FL = 100mm, D = 6 mm, thread = G1/2“
Design type 3: standard: FL = 50 mm, HL = 100 mm, D = 6 mm, thread = G1/2“



6 Disposal instructions

The device must not be disposed in the regular domestic waste.
Send the device directly to us (sufficiently stamped), if it should be disposed. We will dispose the device appropriate and environmentally sound.