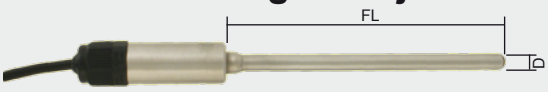
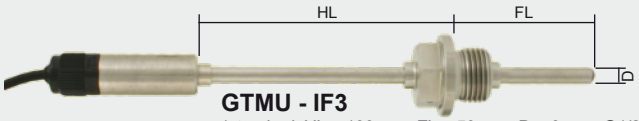
Temperature transmitter
with digital adjustment



GTMU - IF1
(standard: FL = 100 mm, D = 6 mm)

GTMU - IF2
(standard: FL = 100 mm, D = 6 mm, G1/2")



GTMU - IF3
(standard: HL = 100 mm, FL = 50 mm, D = 6 mm, G1/2")

GTMU - IF1

GTMU - IF2

GTMU - IF3

Specification:

Meas. range: *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.*

GTMU – IF1 (standard)**:** -30,0 ... +100,0 °C
GTMU – IF2 (standard)**:** -30,0 ... +100,0 °C
GTMU – IF3 (standard)**:** -70,0 ... +400,0 °C
other measuring ranges *(max. -200 ... +500 °C)* ***upon request***

Meas probe: internal Pt1000-sensor

Accuracy: (at nominal temperature = 25 °C)
Electronic: ±0,2 % of meas. value ±0,2 °C
Meßfühler: standard: DIN class B
optionally higher sensor accuracy available

Output signal: 4 …20 mA (2-wire)
Auxiliary energy: Uv = 10 … 30 V DC
Permissible burden: $R_A \leq (U_V - 10\,V) / 0{,}022\,A$ [R_A in Ohm, U_v in V]

Scaling: the transducer can be scaled freely within the measuring ranges via GTMU-IF programming tool.

Operating temperature of electronic (in tube sleeve) **:** -25 to 60 °C

Housing: stainless steel housing
Dimensions: depending on sensor construction
tube sleeve: Ø15 x 35 mm (without screwing)
tube length FL: 100 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", G1/2", G3/4")

Electric connection: approx. 1 m long 4-pin cable
(2 x current loop, 2 x interface)

Options (upcharges):

- **FL=...: longer tube,** *each started further 100 mm*
- **HL=...: longer collar tube,** *each started further 100 mm*
- **D=...: other tube diameter**
- **G=...: other thread** upon request
- **MB=...: other measuring ranges, set by factory**
- **M12: electric connection: M12 plug**

Accessories:

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

Analog Pt100-transmitter
with digital adjustment

T03 BU /WE *1
(transmitter 0-10V, 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:

Measurement input: Pt100 (DIN EN60751)
Range limits: -200 ... +850 °C
Meas. span: 40 to 1050 K
Zero shift: at span < 75K: -40, -20, 0, 20 or 40 °C
at span = 75K: ± 50 °C
at span > 75K: ± (span * 0.2 + 35 °C)
Sensor connection: 2- or 3-wire connection
Meas. current: < 0,5 mA
Max. perm. line resistance (3-wire)**:** 11 Ohm per conductor
Sampling time: continuous because of analog signal path
Output signal: 0…10 Volt, 3-wire technology
Setting time on a temperature change: ≤ 10 ms
Transfer characteristic: linear with temperature
Transfer accuracy: ≤ ±0.2 % FS
Calibration accuracy: ≤ ±0.2 °C or ±0.2 % FS
Supply voltage: U_B 15 … 30 V DC
Supply voltage error: ±0.01 % FS / V
Permissible load R_L: $R_L \geq$ 10 kOhm
Load error: ≤ ±0.1% FS
Operating temp.: -40 … +85 °C
Relative humidity: 0... 95 %RH (non condensing)
Storage temperature: -40 … +100 °C
Electromagnetic compatibility (EMC):
conforming to CE acc. to DIN EN 61326
Electric connection: via terminals,
cross section of connection terminals max. 1,75 mm²
Housing: PC-housing, suitable for installation in connection head acc. to DIN 43729 form B.
Operating position: unrestricted
Dimensions: Ø 44 mm x 21 mm
IP-rating: housing: IP54, connection terminals: IP00
Weight: approx. 45 g

Accessories:

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

Programming tool for T03BU
The programming tool consists of: configurations software, connection cable RS 232-C (approx. 1m long, 9-pin Dsub-plug)