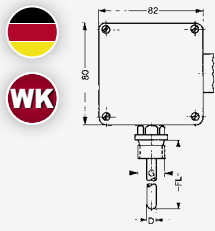
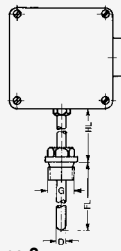


# Temperature transducer GTMU complete with Pt100 or NiCr-Ni (type K) sensor



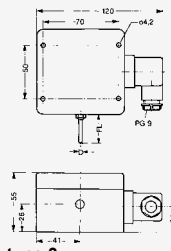
**design type 1**  
for direct screw connection probe with threaded stem „G“

**Standard type:**  
G = 1/2", FL = 100 mm, D = 6 mm



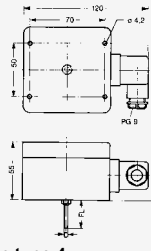
**design type 2**  
for high temperatures threaded stem at a distance of HL (collar tube) from housing

**Standard type:**  
G = 1/2", HL = 50 mm, FL = 100 mm, D = 6 mm



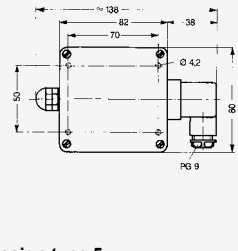
**design type 3**  
indoor / outdoor probe for direct wall mounting

**Standard type::**  
FL = 50 mm, D = 3 mm



**design type 4**  
duct probe centrally mounted sensor tube pointing downwards. (for clamping ring screw connection p.r.t. page 139)

**Standard type:**  
FL = 100 mm, D = 6 mm



**design type 5**  
for external probes measuring transducer for Pt 100 or NiCr-Ni sensors already existing on site or for applications where sensor and housing need to be spaced. (e.g. due to extremely high ambient temperatures or to design reasons).

- GTMU-AP1** Temperature transducer
- GTMU-AP2** Temperature transducer
- GTMU-AP3** Temperature transducer
- GTMU-AP4** Temperature transducer
- GTMU-AP5** Temperature transducer

**General:**  
You can choose between 5 design types of the GTMU and 2 sensor types to get an optimised solution for your needs. The types 1 - 4 are supplied complete with sensor, measuring transducer etc., calibrated and thus ready for use. Type 5 does not include sensor which is either already existing at your works or will have to be ordered separately according to your specifications (p.r.t. pages 131-132, 135-136)

**Specification:**  
**Practical sensor elements:**  
- **resistance thermometer:** Pt100 class B (higher sensor precision p.r.t. page 126)  
- **thermocouple:** NiCr-Ni class 1  
**Max. measuring ranges: (not available for every design type)**  
**Pt100:** -200 ... +800 °C  
**NiCr-Ni:** -200 ... +1372 °C

**Standard measurings ranges:**  
**Pt100:** 0 ... 100 °C, 0 ... 200 °C, -50 ... +50 °C, -50 ... +150 °C  
**NiCr-Ni:** 0 ... 100 °C, -50 ... +150 °C, -200 ... +300 °C, 0 ... 600 °C, 0 ... 1200 °C  
**optional:** any other measuring range against upcharge  
**Accuracy electronics:** ±0,2 % FS (Pt100) or ±0,2 % ±0,5 °C (NiCr-Ni)  
Higher precision e.g. via optionally different transducer (GITT01, RT420)

**Output signal:**  
**standard:** 4 - 20 mA (2-wire)  
**optional:** 0-1 V, 0-2 V, 0-5 V, 0-10 V (3- or 4-wire) (not available for GITT01, RT420)  
**Auxiliary energy:** Uv = 12 ... 30 V DC (at 0-10 V: Uv = 18 ... 30 V DC); (for special types GTMU/GITT and GTMU/RT420: 8 ... 30 V)  
**Reverse voltage protection:** 50 V permanently

**Allowable burden (for 4-20 mA):**  $R_A [Ω] ≤ (U_v [V] - 12V) / 0,02 A$  (for special types GITT and RT420 refer to this pages)  
**Allowable load (for 0-\_\_ Volt):**  $R_L > 3000 Ω$   
**Ambient temperature electronics:** 0 ... +70 °C (-40 ... +85 °C at .../RT420 and .../GITT)

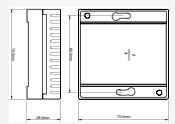
**Temperature coefficient:**  
**Pt100:** 0,01 % / °C  
**NiCr-Ni:** 0,05 % / °C  
**Storage temperature:** -20 ... +70 °C  
**Housing:** ABS (IP65)  
**Probe tube:** stainless steel  
**Probe length:** for standard length please refer to design type, optional: any other tube length possible  
**Thread „G“:** 1/2" (standard), optional: G1/4", G3/8", M5, M6, M8, M10, M12  
**Probe diameter „D“:** 3, 4, 5, 6 or 8 mm  
**Sensor installation:**  
**Pt100:** sensors will be electrically insulated at our works.

<b>NiCr-Ni:</b>	sensors are not electrically insulated as a standard (connection between sensor and outer sheathing). Optional electrically insulated design-type available.
<b>Mounting:</b>	with holes for wall mounting
<b>Mounting distance:</b>	70 x 50 mm (W x H)
<b>Fixing screws:</b>	max. shaft-Ø 4 mm
<b>Electric connection:</b>	elbow plug acc. to EN 175301-803/A (IP65)
<b>Sensor connection: (for type 5)</b>	Pt 100: 2- or 3-wire connection possible. NiCr-Ni: 2-wire only PG 7 screwed conduit entry for sensor cable connection by screw-type terminal on PC board

**Option:**  
**GTMU / GITT**  
electrically isolated transducer (available sensors: Pt100, Pt1000, NiCr-Ni, only output 4-20 mA possible)  
**GTMU / RT420**  
transducer for outdoor usage (available sensors: Pt100, only output 4-20 mA possible)  
- **AV...:**  
other output signal (please state desired output voltage - not available with GITT and RT420)  
- **MB=...:**  
any other measuring range (please state desired measuring range)  
*No upcharge for option -AV..., -MB if more than 10 pcs per type are ordered.*  
- **LACK:**  
encapsulated PC board (for outdoor application, i.e. applications where condensation is possible)  
- **POT:**  
electrically insulated NiCr-Ni-probe  
- **FL=...:**  
longer tube  
- **HL=...:**  
longer collar tube  
- **D=...:**  
other probe diameter  
- **G=...:**  
other thread  
- **VO:**  
on-site display (for output signal 4-20 mA, auxiliary energy Uv = 17 ... 30 V DC)

**Ordering information:**  
At least necessary ordering information: design type, sensor and meas. range. If no additional data is added to the design type, the probe will be manufactured with standard dimensions.  
**Ordering examples:**  
GTMU, type 1, Pt100 DIN KL.B., 0 ... 100 °C  
GTMU, type 3, NiCr-Ni, 0 ... 1200 °C, FL=100 mm, D=4 mm, POT  
We also offer the sensors without the integrated transducer. The sensor connection then are directly connected to the elbow plug.

- GTMU-OMU** design type 1
- GTMU-OMU** design type 2
- GTMU-OMU** design type 3 or design type 4. (available sensors: Pt100 (4-wire), Pt1000 (4-wire), NiCr-Ni)
- GTU-2R-OMU** designer housing for ambient (available sensors: Pt100 (4-wire), Pt1000 (4-wire))



Note: the housing also maybe mounted directly to a concealed distribution box.