

Operating Manual for Temperature Transducer Board

GTP

Specification:

Measuring range:	from -200 to +800°C
	- GTP 0100 0 ... +100°C
	- GTP 0200 0 ... +200°C
	- GTP 5050 -50 ... +50°C
	- GTP 5015 -50 ... +150°C
	OPTIONAL: any measuring range available for additional charge
Sensor element:	measuring resistor Pt100 acc. to DIN IEC 751
Output signal:	- 4 – 20 mA (two wire)
	- 0 – 20 mA (three wire)
	- 0 – 1 V (three or four wire)
	- 0 – 10 V (three or four wire)
Auxiliary energy: (supply voltage)	Uv = 12 - 30 V DC (4-20mA, 0-20mA, 0-1V) Uv = 18 - 30 V DC (0-10V)
Reverse voltage protection:	50V permanent
Permissible impedance:	4-20mA: $R_A(\text{Ohm}) < ((U_v - 12V) / 0.02A)$ <i>Example: for $U_v = 18V$: $R_A < (18V - 12V) / 0.02A \Rightarrow R_A < 300 \text{ Ohm}$</i> 0-20mA: $R_A(\text{Ohm}) < 150 \text{ Ohm}$
Permissible Load (for 0-...V):	$R_L(\text{Ohm}) > 3000 \text{ Ohm}$
Accuracy electronic:	< ±0.2% FS (full scale)
Temperature coefficient:	0.05 % / °C (standard) resp. 0.01 % / °C (optional)
Nominal temperature:	25°C
Operating temperature:	0 to 70°C
Relative humidity:	0 to 95 % r.F. (non condensing)
Storage temperature:	-45 to 85°C
Board dimensions:	56,5 x 71 mm (h x b)
Mounting holes:	4 mounting holes ($\varnothing = 3,3 \text{ mm}$)
Mounting distance:	43,5 x 58 mm
Connecting terminals:	screw-type terminal with wire-protection and testbolt-borings, optional: screw-type/plug-in terminal
Optional:	- any measuring range available - different output voltages - PCB varnished on both sides - screw-type/plug-in terminal
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 EN 61326 (appendix B, class B), performance criterion D

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.

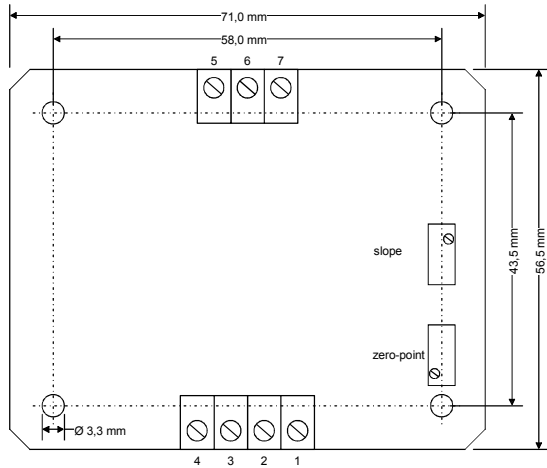


GREISINGER electronic GmbH

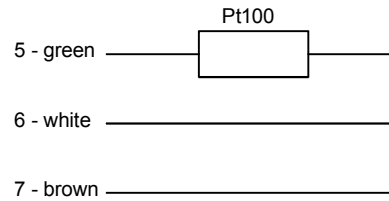
D - 93128 Regenstauf, Hans-Sachs-Straße 26

Tel.: 0049 9402/9383-0, Fax.: 0049 9402/9383-33, eMail: info@greisinger.de

Board dimensions:



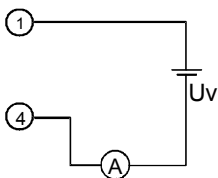
Pin assignment Pt100-sensor:



Conductor colouring for Pt100 3-wire-sensor in according to our delivery program

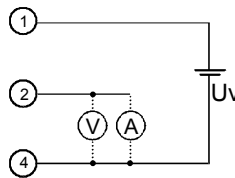
Terminal assignment:

2-wire connection (4-20mA)

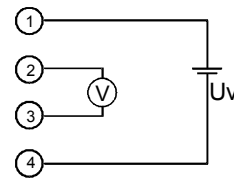


- 1 = supply voltage +Uv
- 4 = GND / signal

3-wire connection (0-20mA, voltage) 4-wire connection (voltage)



- 1 = supply voltage +Uv
- 2 = signal
- 3 = supply voltage -Uv
- 4 = supply voltage -Uv



- 1 = supply voltage +Uv
- 2 = signal +
- 3 = signal -
- 4 = supply voltage -Uv

Please note: terminal 3 and 4 are internal connected.

! Safety instructions:

This device has been designed and tested in accordance with the safety regulations for electronic devices. 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". If the device is transported from a cold to a warm environment condensation may cause in a failure of the function. In such a case make sure the device temperature has adjusted to the ambient temperature before trying a new start-up.
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.

5. Warning:

Do not use these 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.