

Digital-Panel-Mounted Thermometer

GPT 180



Specification:

Measuring range:	-50.0 ... +175.0 °C
Resolution:	0.1 °C
Probe:	KTY83-110
Accuracy: (at nominal temperature)	±0.5°C or ±1% v. MW. (at range: -10 ... +120°C)
Scan rate:	3 measurings per second
Display:	3½-digit, 12.7 mm high LCD-display
Power supply:	8 - 12 V DC; < 1 mA
Low voltage warning:	„BAT“ will be displayed automatically in the display as soon as the supply voltage is too low. => check supply voltage.
Nominal temperature:	25 °C
Operating temperature:	0 to 50 °C
Atmospheric humidity:	< 85 % RH (non-condensing)
Storage temperature:	-20 to 70 °C
Dimension:	38 x 76 x 22 mm (H x W x D)
Panel-cutout:	36 ^{+0.5} x 73.2 ^{+0.5} mm (H x W)
Panel thickness:	max. 9.5 mm
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). Correspondent EN 61326 (appendix D, class B). The module is designed as installation module with limited noise immunity. Electromagnetic interference may cause increased deviations up to malfunction of the device. When connecting the instrument suitable measures against electromagnetic interference should be taken.



Safety instructions:

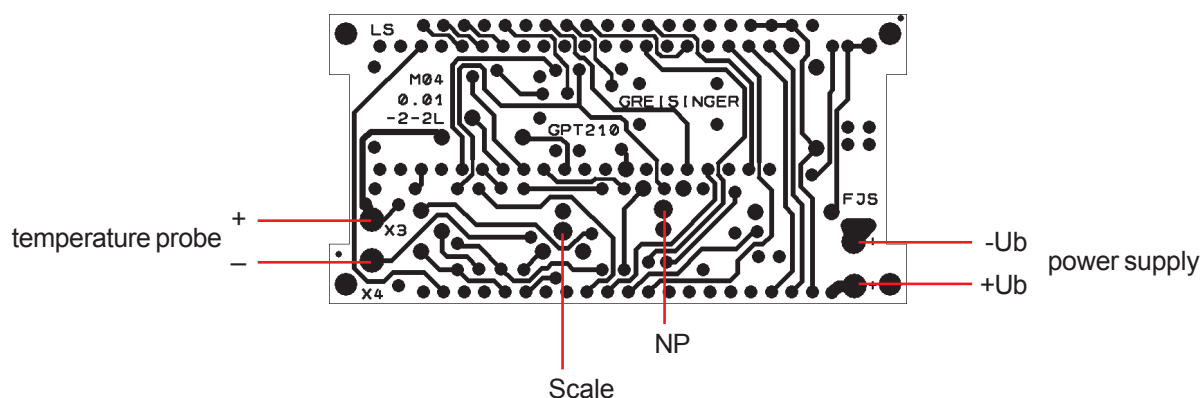
This device has been designed and tested in accordance with the safety regulations for electronic devices.

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

Installation and Operating Advice:

1. Connection diagram:



2. Possibility of recalibration:

The measuring device will be calibrated to the nominal probe values. A recalibration is, therefore, not necessary.

If you want to calibrate the device for an existing sensor, please proceed as follows.

(calibrate 0°C before scale as otherwise correct adjustment cannot be guaranteed)

Calibration point NP: Put ice cubes in a glass and pour cold water till ice cubes are almost covered. Put sensor into glass, wait approx. 15 minutes, then stir water with a spoon-handle. Wait for stable value to be displayed, then turn zero point potentiometer (NP) by means of a screw driver till display shows "00.0".

Calibration point Scale: For the calibration of Scale a known reference temperature will be needed. Set display to a reference temperature value (e.g. clinical thermometer) using the Scale-potentiometer.

Please note: boiling water should not be used as a temperature reference as the boiling temperature is dependent on the atmospheric pressure. (You can use it with a reference thermometer - that shows you the temperatur).

3. Do not operate the module above the specified supply voltage and the operating temperature.

Disposal Notice:

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.