PRODUKT POLSKI

PAMEL

42-300 Myszków, 5E Urodna Street

THERMOMETER

TERMO4G
TERMO6G
TERMO8G

PLEASE READ THE MANUAL
DON'T YOU KNOW? CALL US! WE DON'T BITE
453-343-360 (OFFICE 9-14 weekdays)
453-343-360 (Technical Support 16-19 Monday-Saturday)
www.pamel.pl pamel@pamel.pl

	Do not disassemble or introduce modifications. • This may cause a malfunction • Contact if necessary authorized service We don't bite. It will be cheaper than repairing or altering it yourself
	If the appliance will not be used for a long period of time, disconnect the power supply. If you want to carry out electrical work, e.g. changing wires, disconnect the power supply. Electricity is also ticking.
	Avoid routing the power cable through the places through which they pass people. • Someone can catch on the cable and drop the device, causing damage to it or injuring the operator.
	Do not touch the device with wet hands. • Possibility of electric shock
	Do not use the device where it may be exposed to liquids. • Short circuit or shock may occur electric current.
	Do not place the device firmly in places dusty. • There is a risk of poor cooling of the device and the operation of thermals. No one likes dirt, especially fans.

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https://www.youtube.com/@PAMEL_STEROWNIKI/

INTENDED USE

The TermoXG is used to measure up to **X measuring points**. This is a practical solution for people who want to have constant control over the temperature in several places at the same time. The device is particularly suitable for **distillation processes**, where viewing temperatures from different points in the installation allows you to better assess the process and react faster to changes. This method of use is consistent with the description of the applications of PAMEL devices in the distillation category and multichannel thermometers.

Due to its versatility, the TermoXG can be powered in several convenient ways: via **a 5 V plug power supply**, standard **USB,** as well as from other popular 5 V power sources. A fragment of the PAMEL manual for the TermoXG series confirms power from **a USB 5 V charger** and via **USB.**

The device measures temperature with high accuracy and allows you to observe several probes simultaneously on one screen. Depending on the version and the number of connected sensors, the user can track readings from one or more points, without having to switch between separate meters. In the TERMO4G/TERMO6G/TERMO8G series manual, PAMEL states that the device measures up to 8 temperatures, and the screen shows 1, 2, 4, 6 or 8 values, respectively, depending on the number of probes connected.

A big advantage of TermoXG is the ability to set **temperature alarms** for individual measuring points. This is very useful during distillation, when it is important to capture when a certain temperature is reached without constantly looking at the display. PAMEL describes alarms in a similar way in the TERMO4G model – the user can set a low or over-temperature alarm for each probe, and the device informs about it with a beep and an indication on the screen.

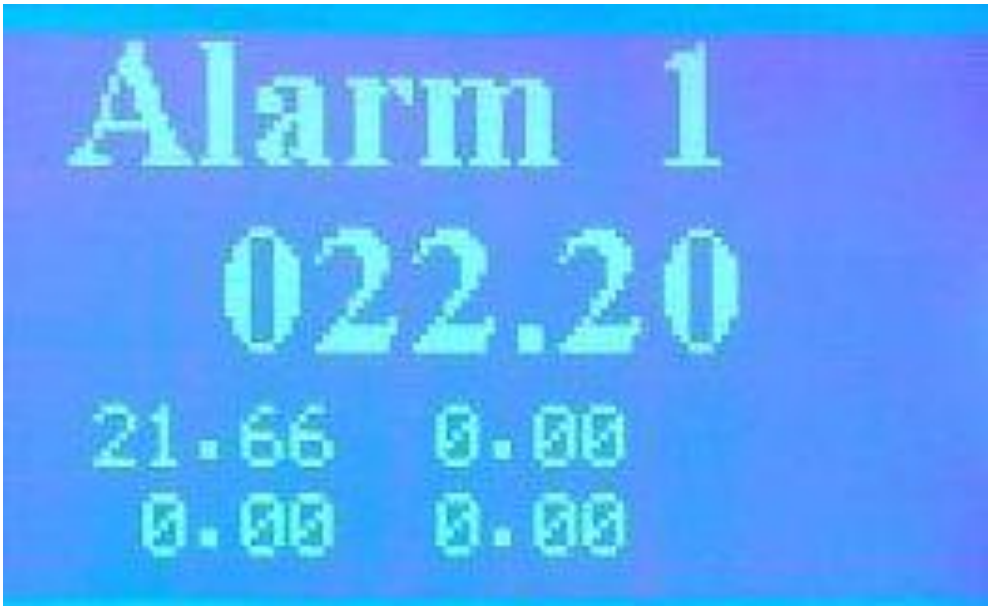
TermoXG will work well not only in distillation. Thanks to multi-point temperature measurement, it can also be used in **brewing**, **smoking**, temperature control of tanks, chambers, heating systems and wherever it is important to read simultaneously from several places. This range of applications is in accordance with the descriptions of PAMEL categories and devices.

It is a good choice for people who want to have **a clear overview of the process**, convenient power supply and the ability to control several temperatures at once in one device. Instead of several separate thermometers, the user receives a single, clear measuring system that makes it easier to monitor the entire process.

HOW IT WORKS

The device measures **up to 8 temperatures simultaneously** – depending on the model you choose. Thanks to the high measurement accuracy, the resolution of the readings is up to **0.02°C**, which allows you to observe the process very precisely.
The screen displays the number of temperatures depending on the number of probes connected. Depending on the configuration, the user can observe **1, 2, 4, 6 or 8 temperature values at the same time**. This ensures that the reading remains legible and convenient regardless of the number of active measuring points.
With the help of buttons, the user selects a specific measurement channel for which **an audible alarm is to be set**. The selected temperature is presented at the bottom of the screen, which makes it easy to quickly identify the currently set alarm point and convenient operation of the device.
You can also use a more sales version:
The device allows you to measure **up to 8 temperatures at** the same time, depending on the model. With a high measurement resolution of up to **0.02°C**, even small temperature changes can be accurately controlled. The screen automatically presents **1, 2, 4, 6 or 8 readings**, depending on the number of connected probes, so that all the most important values are always clearly visible. The user can also easily set **an audible alarm** for the selected temperature, and the currently selected channel is shown at the bottom of the screen.

After confirming the selection **with the middle button**, the user proceeds to set the alarm temperatures for the selected measuring point.
The device allows you to set two types of alarm: the
upper alarm (G) – triggered when the maximum temperature is exceeded, and
the lower alarm (D) – activated when the temperature drops below the set

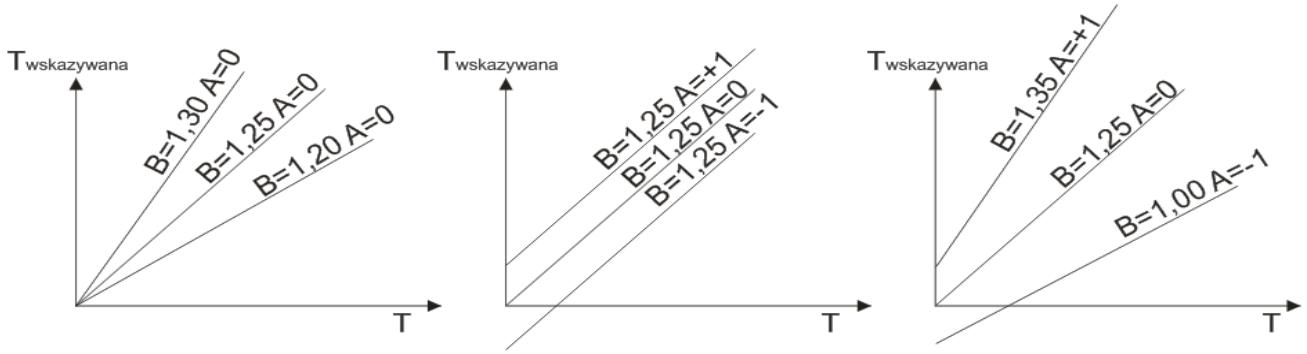
minimum value. 

The occurrence of an alarm is signaled in two ways:
by an audible signal and **by displaying a frame around the temperature** for which the set threshold has been exceeded.
To mute the beep while the alarm is in progress, press **the middle button**. After the sound is muted, the alarm frames still remain visible on the screen, so the user is always informed which channel is outside the set range.
You will only be able to restart the beep when **all active alarms have subsided** and then the next excess occurs.

CALIBRATION

To ensure the highest possible measurement accuracy, the user can calibrate each probe separately on their own.
To enter calibration mode, **press and hold** the center button **before turning on the device**. After starting, the device will go to the calibration settings of subsequent probes.
For each probe, the user can set two calibration parameters:
1. Linearity coefficient "B"
This parameter is set by the **right** and **left buttons**. It affects the slope of the measurement characteristics according to the formula:
T' = B × T
Once the value is set, the parameter is approved **with the middle button**.
Then the screen for setting the second parameter appears:
2. Offset "A"
This value is also set by the **right** and **left buttons**. This parameter is responsible for shifting the temperature indication according to the formula:
T' = A + B × T
Once the value is set, you need to commit it again **with the middle button**.
It is recommended to leave the default settings:
B = 1.25
A = 0
Calibration parameters should only be changed if there is a reasonable need to correct the probe readings.
Parameter "B" should be adjusted when the difference between the indicated and actual temperature **changes with the increase in temperature**. Example: at room temperature, the reading is underestimated by **0.1°C**, and at **80°C** by **0.3°C**. In this situation, it may be necessary to correct the slope of the measurement characteristics.
Parameter "A" should be adjusted when the difference between the indicated and actual temperature is **constant over the entire measuring range**. Example: the device lowers the temperature by **2°C** over the entire range. In this case, you need to adjust the offset value.
You can also use a slightly more "manual" version, shorter:
To improve measurement accuracy, the user can calibrate each probe by himself. To enter calibration mode, press and hold the center button before turning on the device. Two parameters are set for each probe: **B** and **A**. Parameter **B** is responsible for the linearity coefficient according to the formula **T' = B × T**, while parameter **A** is responsible for shifting the indication according to the formula **T' = A + B × T**. Both values are set with the right and left buttons, and confirmed with the middle button. It is recommended to leave the default settings **at B = 1.25** and **A = 0**.

Parameter **B** should be changed when the indication error increases or decreases with temperature, and parameter **A** when the error remains constant throughout the measuring range.



SYMPTOM	ACTION
The thermostat lowers the indicated temperature by a constant value, e.g. 2 degrees	Set the adjustment value A from "0" to "-2"
The thermostat inflates the indicated temperature by a constant value, e.g. 2 degrees	Set the adjustment value A from "0" to "2"
The thermostat lowers the indicated temperature, e.g. 10 percent	Increase the value of correction B, e.g. by "0.1", e.g. from "1.4" to "1.5"
The thermostat inflates the indicated temperature, e.g. 10 percent	Decrease the value of correction B, e.g. by "0.1", e.g. from "1.4" to "1.3"
A combination of the above	A combination of the above

The indicated temperature is A+B*T and depends on the adjustments set.
Default :
B=0
A=1.25

The device is delivered pre-calibrated. If your thermometer shows 19 degrees, it does not mean that this temperature prevails throughout the room. The temperature difference mainly depends on the height and place where the sensor is mounted, e.g. a different temperature is in a room closer to the radiator, near the floor, ceiling, wooden or metal element or by a window.

An analogous temperature behavior is in the device (distiller, smokehouse). The temperature may vary depending on the installation location, mounting method, thermal conductivity, etc. That's why we left you the option of manually calibrating the probes.

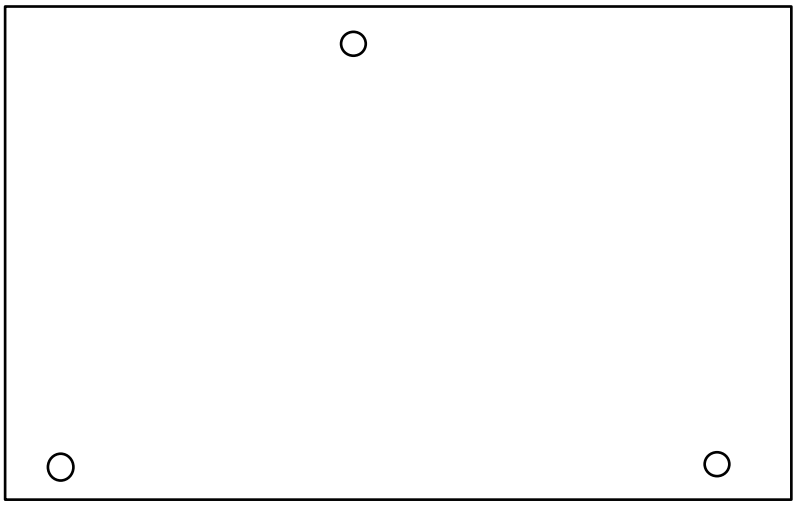
Calibration of the probes is not necessary.

TECHNICAL PARAMETERS

Supply Voltage: 5V (Charger, Power Adapter, USB)
Operating temperature: -10 to +60°C
Measurement Resolution: 0.02 degree
Probe Connector: RJ-45
Temperature setting range: 10 to +115°C
Dimensions: L-140mm, W,.-110mm, H-30mm
Housing: Self-extinguishing plastic
Protection Grade: IP20
Warranty: 60 months from the date of sale
Compliance with standards: PN- EN 60529
Lead-free (Pb-Free)

Symptom	Hint
The device displays a temp of 0 degrees	The probe must be plugged in before the power is turned on. Reset the device. During startup, the inscription appears: PROBES: X where X indicates the number of probes
I rearrange the probes but the display order does not change	The probes are displayed by manufacturer's serial numbers. From the smallest to the largest. To change the order, go to the service menu. Hold down the middle key for a longer time.

Mounting screws can be screwed in.



Two screw holes can be used to install the fasteners. Screws with a maximum diameter of 4mm and 25mm length should be used.

ADDITIONAL OPTIONS:

Remote alarm module.

The thermometer can be equipped with a remote alarm module.
It consists of two parts. The first is permanently installed in the controller.
The second is a receiver that audibly and optically signals the occurrence of an alarm in the controller.

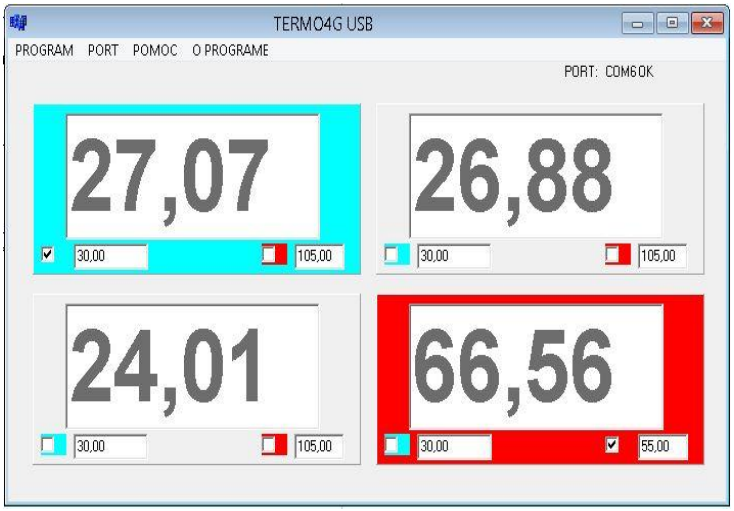
The sound signal is emitted directly from the device as well as from the receiver, which can be placed up to 100 meters away in an open space, which is enough power to receive the signal between the ceilings of the building.
This means that the operator does not have to be constantly near the controller and is informed of any alarms reported by the controller.

Communication interface.

Thermometers TERMO4G equipped with an interface (RS485, USB) can work with a PC.
The type of interface to choose from when shopping.
RS485 transmission (two-wire) works at a distance of up to 1000m.
The USB transmission has a range of several meters.

In the program as well as in the device, the user can use the latest function of the temperature decrease or increase alarm.

Details on the website and by phone at the technical support number.



Remote Panel

TERMO4G thermometers equipped with an RS485 interface can work with a remote panel.

Two-wire transmission works at a distance of up to 1000m.

In the panel as well as in the device, the user can use the temperature decrease or increase alarm function.
There can be up to 30 reading devices (computers, panels, etc.) in the system.

Built-in rechargeable battery.

TERMO4G thermometers can be equipped with a built-in battery that allows you to work without a power source for up to 100 hours.
The battery is made in LI-ION technology, which means no effects of rapid capacity reduction, the possibility of free recharging and very high efficiency.
In addition to the battery, the device has a charger that allows the battery to be charged efficiently.

The probes are additional accessories and are subject to natural wear and tear. Therefore, these elements are covered by a standard warranty (not 5 years)

In addition, it should be remembered that threaded probes are a whole. Do not tear the sensors out of the metal covers.

This will void the warranty.

From 09.2021, all probes have a warranty seal indicating the date of manufacture. Destruction of the seal is considered to be erasure of the marks identifying the product

Dear User,

First of all, we would like to thank you for choosing a PAMEL product. We are sure that you will be satisfied with this choice. We design our devices to meet your requirements and guarantee future trouble-free use.

Before using the equipment, carefully read the installation procedures and operating conditions described in the Owner's Manual.

If you have any doubts, please contact us.

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TERMS AND CONDITIONS OF THE WARRANTY.

1. **PAMEL provides a warranty in the Republic of Poland for a period of 60 months counting from the date of sale, but not longer than 80 months from the date of production placed on the Product for which the warranty card is issued, provided that the equipment is used in accordance with the intended purpose and technical and operational conditions described in the User Manual.**
2. The warranty does not cover movable elements of the product's equipment (accessories) intended for self-assembly by the user, e.g.: antennas, sensors, holders, heaters, cables, power batteries.
3. The Guarantor undertakes to remove physical defects free of charge if these defects are revealed during the warranty period or to deliver a defect-free item if within the warranty, at least 4 repairs of the item have been made, and the object of sale is still defective.

In the event of a replacement, the product will be replaced with a new one, the same model or with similar, not worse technical parameters. If such an exchange is not possible, the Buyer will receive a refund.

3. The warranty period provided for in point 1 is extended by the duration of the repair.
4. The duration of the repair is counted from the day of delivery of the item to the service point until the date of delivery of the item to the carrier in order to deliver it to the Buyer.
5. **In the event of a defect, the Buyer shall report this fact to the Guarantor by post online (pamel@pamel.pl) or by phone, then the Guarantor first tries to solve the problem remotely and indicates the further path of the complaint procedure.**
6. At the request of the Guarantor, the Buyer is obliged to reliably fill in the Complaint Protocol made available by the Guarantor.
7. The guarantor is liable only for defects arising from reasons inherent in the subject of the sale.
8. The warranty does not cover damage to the equipment resulting from improper or incompatible with the installation and assembly of use, in particular, storage, maintenance, inconsistent with the intended use, use of improper consumables, arbitrarily carrying out repairs or improvements, mechanical damage, due to the fault of of the user, due to external causes such as pollution, flooding, condensation of water vapour, atmospheric phenomena, random events. Damage to electronic components resulting from exceeding the rated parameters is also not covered by the warranty.
9. The warranty does not cover claims for the technical characteristics of the devices, as long as they are in accordance with those specified by the manufacturer.
10. **The condition for the Buyer to retain the rights under the warranty is the delivery of equipment to the service point specified in point 5, in complete condition, in packaging to reduce the risk of damage, with documentation, cables and all other elements issued in connection with the performance of the sales contract, without the seals or stickers with the warranty card being broken.**
11. The warranty does not cover materials and activities that are part of normal operating operations, e.g. installing equipment, programming, cleaning and maintenance, replacing bulbs and fuses, checking operation. The services mentioned above are paid.

12. In addition to the situations referred to in points 7-11, the service point may refuse to warranty repair also in the case of:
- finding that the data contained in the sales documentation is inconsistent with the device data

- amendments to documents by unauthorized persons
13. Physical defects of the device revealed during the warranty period will be removed within 21 days counted from the day following the day of delivery of the device to the service. If you need to import spare parts from abroad
The Guarantor reserves the right to extend the warranty period for the time necessary to repair, of which the Buyer will be informed each time using the e-mail.
14. The device should be installed in accordance with the required standards, technical requirements included in the manual. If there is a legal requirement, the installation of the device must be carried out by a person with the appropriate authorization in this regard.
15. The rights and obligations of the parties with respect to the warranty shall be governed solely by the content of the provisions in the this document.
16. Equipment not collected from the service within 3 months of the completion of the repair will be forfeited to the service.
17.In the event that the warranty repair requires the replacement of a part, the replaced element remains the property of the Guarantor.
18.The warrantor is not responsible for damages resulting from the loss of user data stored in the device, we also inform you that the device will be returned in accordance with the production condition.
19. **By signing the Buyer, the Buyer declares that he has read the terms of the warranty and accepts them.**
A warranty card without the signature of the Buyer will be considered invalid.
ATTENTION!
The number of repairs does not include, in particular: cleaning, maintenance, replacement bulbs, filaments or fuses, repairs resulting from wear and tear due to operation, e.g. wear of potentiometers, etc.

BEGINNING OF THE PERIOD WARRANTY	SELLER STAMP	CUSTOMER SIGNATURE

21.04.2026