



A54.6001

Heating Stage

Polarizing Digital Display Temperature Control

Instruction Manual



Please read and understand this manual and packing list carefully before operating this heating table

Attention

In this manual, safety tips are indicated by the following symbols. Be sure to follow these symbols to ensure correct and safe operation.



警告

Ignoring this symbol may result in personal injury or instrument damage!

Attention

Ignoring this symbol may affect the observation effect of the heating stage!

Tips

Tips for the operation of heating table.



Pay attention to environmental protection!

Safety Tips



1. Turn off the power switch and unplug the power cord before installing the heating stage and plugging in the power supply. In order to prevent electric shock or fire, the power switch must be turned off and the power cord must be pulled out before the heating stage is used.



2. Disassemble is strictly prohibited

It is strictly prohibited to disassemble any parts except those mentioned in this manual. Otherwise, the performance of the instrument may be reduced, resulting in electric shock, injury and damage to the instrument. If there is any problem, please contact the supplier.



3. Input power voltage

Please confirm whether the input voltage is consistent with the power supply voltage in your area. If not, please do not use the heating stage and contact the supplier. If the wrong input voltage is used in the heating stage, it will lead to short circuit or fire, which will damage the heating stage.



4. Using a specific power cord

Improper use of power cord may result in instrument damage or fire. If extended power cord is used, a grounded power cord (PE) must be used.



5. Heating temperature control box needs to prevent high temperature,

moisture and foreign matters. In order to prevent short circuit or other faults, please do not use the temperature control box in a high temperature and humid environment for a long time. The suitable working environment temperature is 5 ~ 35 °C, and the relative humidity is 20% ~ 80% (at 25 °C). If there is water sprinkled on the thermostat, please turn off the power switch immediately, unplug the power cord, and then wipe off the water with a dry cloth. When foreign matters enter or drip into the temperature control box, please stop using and contact the supplier.



警告

6. Heating stage temperature

The heating stage will produce high temperature when it is in use. Do not touch the heating stage during the working process. Do not touch the heating stage within 30 minutes after turning off the power. When contacting, please make sure that the heating stage is cooled enough (at least 30 minutes).

- To prevent scalding, do not touch the heating stage within 30 minutes after turning off the power.
- To prevent fire, please do not place fiber products, paper or flammable and explosive materials (such as gasoline, petroleum ether, alcohol, etc.) near the heating stage.



7. Place of use

This heating stage is a precision heating instrument. If it is used or stored improperly, it will cause damage to the instrument or have adverse effects on its accuracy.

Please consider the following conditions when choosing the place of use:

- Avoid placing the heating stage in the following places: direct sunlight, vertical lower part of indoor lighting and other bright places.
- Suitable working environment temperature is 0 ~ 40 °C, relative humidity is 45% ~ 85% (at 25 °C). Do not place the heating stage in a place with high temperature, humidity and dust for a long time, otherwise the heating stage will become foggy or moldy and accumulate dust, which will damage the heating stage and shorten its service life.



8. Instrument handling

This heating stage is a precision instrument with heavy weight. It should be handled carefully. Strong impact and rough operation are strictly prohibited; otherwise the instrument will be damaged



9. Environmental protection

Please protect the environment by packing the heating stage with the waste generated during the use, such as carton, foam, plastic, light bulbs and batteries.

Usage

A54.6001 Heating Stage adopts 36V DC safe voltage, intelligent temperature control with automatic PID and manual adjustment function. The temperature sensor is close to the heating surface and sealed in the heating chamber. The heat insulation layer adopts Teflon. When the temperature rises to 300° C, the peripheral temperature of the heating stage is less than 80° C. Therefore, the whole set of heating system is safe and reliable with high measurement accuracy. With it work with polarizing light microscope, it can be widely used in materials science, biochemistry, metallurgy, organic chemistry, mineralogy, chemical fiber and drug inspection for the observation of deformation and color change, and the study of three state transformation of objects.

Features

A54.6001 Heating Stage adopts a unique temperature sensor close to the heating surface and enclosed in the heating cavity structure. It has the advantages of fast heat conduction, uniform temperature, no oxidation of heat source, long service life, small volume, high power, low energy consumption, rapid temperature rise, and can withstand high temperature for a long time.

The panel type temperature controller with LED digital 4 digits display, PID self-adjusting timing alarm (to prevent the heating stage from burning dry for a long time due to forgetting to turn off the power after the experiment), and single-chip microcomputer technology is adopted for temperature control. It has the characteristics of automatic temperature control and high temperature control precision.

36V DC low voltage heating is safe, radiation-free, with heat dissipation device.

Automatic PID and manual adjustment function intelligent temperature control instrument, high temperature control precision, simple operation, convenient.

Specification

Melting Point Measure Range: Room temperature +10 °C - 320 °C

Minimum Temperature Display: 0.1 °C

Measurement Accuracy: $\leq 1\%$ °C (Full Range)

Measurement Repeatability: ± 1 °C (≤ 200 °C)

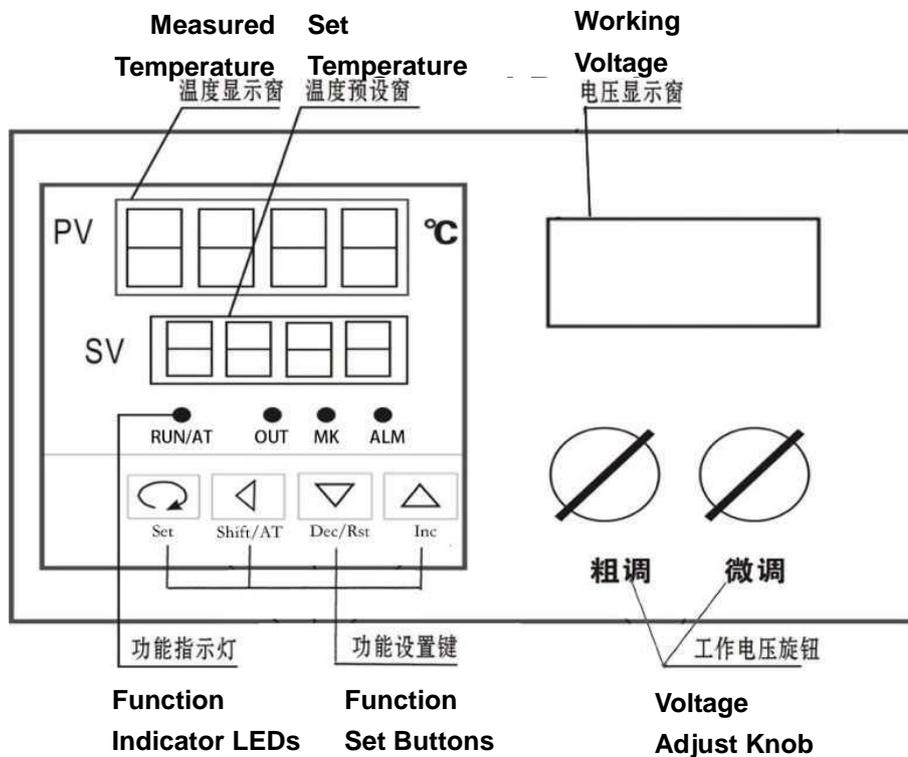
± 1.5 °C (> 200 °C ≤ 300 °C)

Test Volume: ≤ 1 mg

Working Voltage: Input AC220V, Output DC15V~36V

Operating Environment: Temperature 0~40 °C, relative temperature 45-85%

Note: The maximum applicable lens of polarizing microscope is 20x long working distance objective



1. PV Window – Display Measured Temperature

Display the measured temperature or various symbols according to the instrument status.

2. SV Window – Display Setted Temperature

Display the set temperature or various symbols according to the instrument status;

3. Function indicator LEDs:

RUN /AT Means instrument is working

OUT Means main control output is connected.

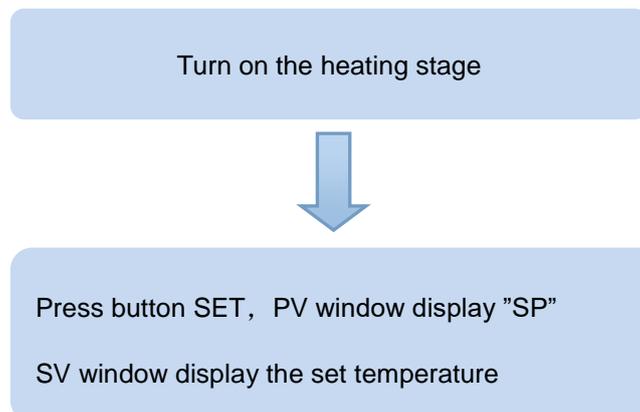
MK Means fault alarm indicator

ALM Means online alarm indicator.

How to Use

The heating stage is composed of precision temperature controller and working thermostatic heating stage, which are connected by a 5-core cable socket. The working thermostatic heating stage should be placed on the working stage of optical microscope or electron microscope.

Operation Manual





Press button RST, to lower the set temperature
Press button INC to increase the set temperature



Press button SET twice, the temperature will be set, instrument start to work

Special Tips: If abnormal adjustment screen appears in the process of adjustment (i.e. it cannot be adjusted according to the above adjustment method), long press set key to return to standard mode.

Operating Instructions For Heating Rate

The output voltage range of the heating stage is DC15V~DC36V. After the temperature is set, the larger the output voltage, the faster the temperature rises. The smaller the output voltage is, the slower the temperature rises.