

STC-3008

USER GUIDE



MAIN FUNCTION:

Dual display two-way thermostat, with mode switching between cool and heat.

Temperature can be controlled by setting the temperature set value and the difference value

Features: Temperature calibration, Refrigerating control output delay protection, Alarm when temperature exceeds temperature limit or when there is a sensor error.

SIZE SPECIFICATIONS:

FRONT PANEL SIZE: 75mm x 34.5mm (LxW)

MOUNTING SIZE: 71mm x 29mm (LxW)

PRODUCT SIZE: 75mm x 34.5mm x 85mm (LxWxD)

SENSOR LENGTH: 100cm (Including Probe)

TECHNICAL SPECIFICATIONS:

HOUSING MATERIAL: ABS gray flame retardant molded case.

TEMPERATURE RANGE: -55°C – 120°C

POWER SUPPLY AC VERSION: 110 – 220VAC ±10%, 50/60Hz

POWER SUPPLY 12V DC VERSION: 12VDC

POWER SUPPLY 24V DC VERSION: 24VDC

ACCURACY: ±1°C

TEMPERATURE MEASUREMENT ACCURACY (RESOLUTION): 0.1°C

HUMIDITY MEASUREMENT ACCURACY: 3%

OUTPUT CONTROL: Relay Output

OUTPUT POWER: 10A (Maximum)

SENSOR: 2 x NTC

OPERATION:

SET STARTING TEMPERATURE: Press the “up” button once to display the current starting temperature, to set the starting temperature, press and hold the up key for approx. 3 seconds, the display with start to flash. Use the up and down arrows to set, once desired temperature is set, don’t press any buttons for a couple of seconds and it will save this setting.

SET STOPPING TEMPERATURE: Press the “down” button once to display the current stopping temperature, to set the stopping temperature, press and hold the up key for approx. 3 seconds, the display with start to flash. Use the up and down arrows to set, once desired temperature is set, don’t press any buttons for a couple of seconds and it will save this setting.

****NOTE:** This process applies to both relay 1 & 2.

****NOTE:** If the starting temperature is higher than the stopping temperature, the relay will be in cooling mode. If the starting temperature is lower than the stopping temperature the relay will be in heating mode.

EXAMPLES:

HEATING EXAMPLE: *Controlling a water heater to start heating the water when it is 40°C or less, and then stop heating once the water temperature has reached 60°C.*

1. Hold the “up” key for ~3 seconds until display is flashing, set temperature to 40.0, leave the buttons until setting is saved.
2. Hold the “down” key for ~3 seconds until display is flashing, set temperature to 60.0, leave the buttons until setting is saved.

COOLING EXAMPLE: *Activate a fan to cool down an area when the temperature reaches 35°C or more, and stop the fan once the area temperature reaches 30°C.*

1. Hold the “up” key for ~3 seconds until display is flashing, set temperature to 35.0, leave the buttons until setting is saved.
2. Hold the “down” key for ~3 seconds until display is flashing, set temperature to 30.0, leave the buttons until setting is saved.

SETTINGS:

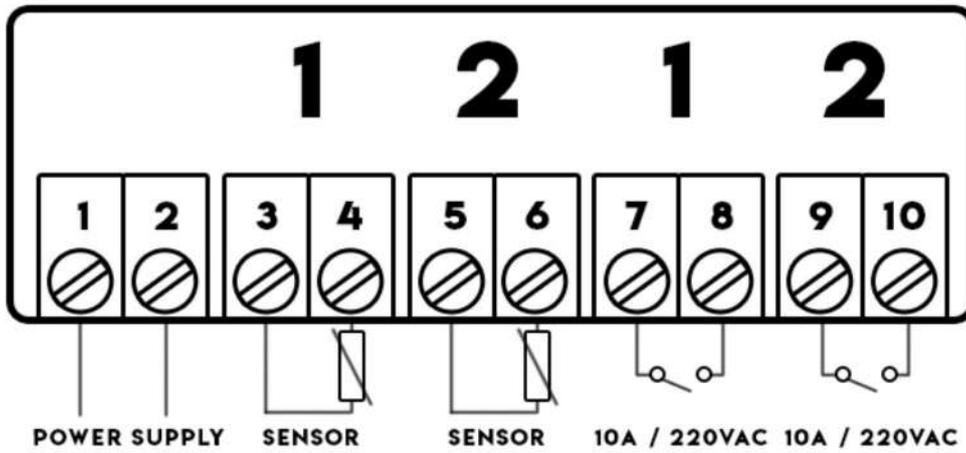
Press and hold together “up1” and “up2” buttons together to enter the setting modes:

CODE	FUNCTION	RANGE	DEFAULT
P0	Relay 1 Delay Time	0 – 60 Minutes	0 Minutes
P1	Relay 2 Delay Time	0 – 60 Minutes	0 Minutes
P2	High Temperature Alarm Value	-55°C - 120°C	120°C
P3	Lower Temperature Alarm Value	-55°C - 120°C	-55°C

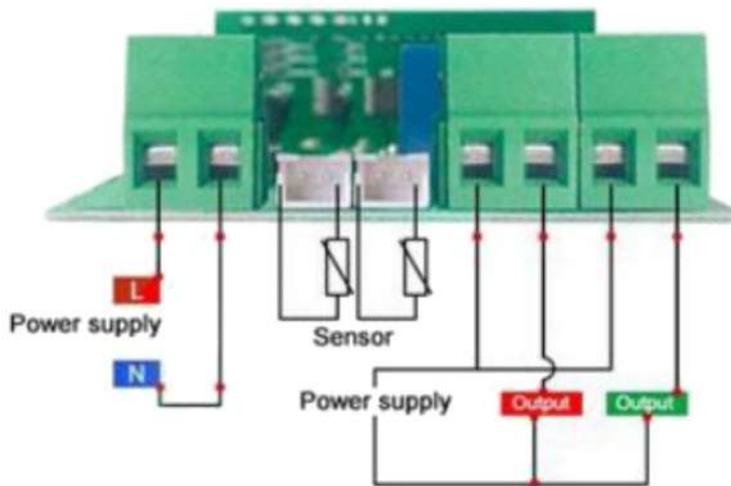
RESET FACTORY DEFAULT SETTINGS:

To reset the device back to factory default settings, press and hold “down 1” and “down 2” buttons together for ~3 seconds. This will restore the device back to factory default settings.

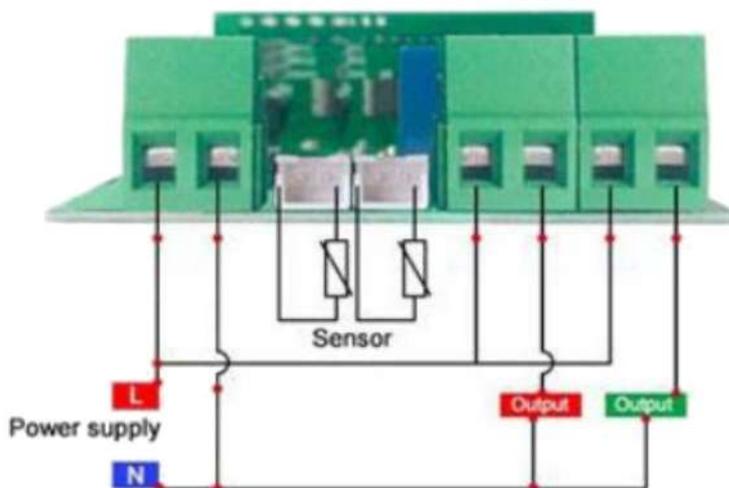
WIRING:



INDEPENDENT POWER SUPPLY FOR LOAD:



SAME POWER SUPPLY FOR LOAD:



Indicator light status instruction

Indicator light	Function	Note
Red light	① First group display	Cool,Heat indicator light can not be "on" status simultaneously
Blue light	② Second group display	
Set indicator light	On:parameter setting status	

Error description

Alarm when sensor error: Controller activate the sensor error alarm mode when sensor open circuit or short circuit, all the running status is closed off with the buzzer alarms, and the nixie tube displays "EE", press any key can cancel alarm sound,system back to display the normal temperature when the error and the fault is cleared.

Alarm when the measuring temperature exceeds temperature measuring range: Controller activates the error alarm function when the measuring temperature exceeds the temperature measuring range, all the running status is closed off with the buzzer alarms, and the nixie tube displays "HH", Press any key can cancel alarm sound, system back to display the normal working mode when the temperature restore to normal measuring range.

Safety Regulations

★ **Danger:**

1. Strictly distinguish the sensor down-lead, power wire and output relay interface from one another, and prohibit wrong connections or overloading the relay

2. Dangers: Prohibit connecting the wire terminals without electricity cut-off

★ **Warning:**

Prohibit using the machine under the environment of over damp, high temp., strong electromagnetism interference or strong corrosion.

★ **Notice:**

1. The power supply should conform to the voltage value indicated in the instruction.

2. To avoid the interference, the sensor down-lead and power wire should be kept a proper distance.