



## Technical Parameters:

Power consumption < 3W

Accuracy: 0.1 Celsius

Temperature range: -50 to 120 °C (-58 to 248 °F)

Sensors: Two temperature sensors with 3m wire length

Power supply: DC 12V, DC 24V, AC 100-240V (check the model no.)

Output: 2 outputs with 10 or 30 Amp load (check the model no.)



## Features:

- 2 separate relay, 2 sensors and 2 zones temp controller.
- 2 color display (red and blue) for each zone.
- Record maximum high temperature for each sensor.
- Selectable between Celsius and Fahrenheit.
- 2 separate High Alarm function (buzzer and flasher alarm).
- 2 timer output delay for Out1 and Out2.
- Temperature calibration for each sensors.
- Keep Setting on memory and factory default setting option.

## Parameter Setting summary :

- (A)** Press  $\Delta$  button for 3 seconds  $\rightarrow$  Set Start Temp Zone 1  
 Press  $\Delta$  button for 3 seconds  $\rightarrow$  Set Start Temp Zone 2  
 Press  $\nabla$  button for 3 seconds  $\rightarrow$  Set Stop Temp Zone 1  
 Press  $\nabla$  button for 3 seconds  $\rightarrow$  Set Stop Temp Zone 2

- (B)** P0 : Timer Delay Out 1  
 P1 : Timer Delay Out 2  
**(C)** P2 : High Alarm Temp 1  
 P3 : High Alarm Temp 2

Press  $\Delta\Delta$  button for 3 second  $\rightarrow$

- (D)** P4 : Select °C or °F  
**(E)** P5 : Record Max Temp1  
 P6 : Record Max Temp2

**(F)** Press  $\nabla\nabla$  button for 3 second  $\rightarrow$  factory default setting

- (G)** Press  $\nabla\Delta$  button for 3 second  $\rightarrow$  Calibration of sensor 1  
 Press  $\Delta\Delta$  button for 3 second  $\rightarrow$  Calibration of sensor 2

## Parameter setting description:

After setting each parameter mode, wait 3 seconds and controller will exit the parameter setting.

### (A) Setting start, stop temperature and heating or cooling mode:

You can set the start and stop temperature value of each outputs.

The controller automatically recognize the heating or cooling mode,

Heating mode: When the start temp value is less than stop temperature.

Cooling mode: When the start temp value is higher than stop temp.

By quick pressing of keys, you can check each sensor, start and stop temperature.

### (B) Delay Protection ( P0 , P1 parameters ) :

In the cooling mode, you can use this parameter for delay cooling system protection. It prevents breaking the cooling system as a result of frequent boot.

The default setting is 0, but you can define the delay time for starting of your cooling system between 0 to 60 minutes.

### (C) High temperature alarm setting sensor 1,2 (P2,P3 parameters):

If the temperature passes the higher alarm temperature values the controller makes a beeping sound and Flash on each separate zone. The default settings for zone1 and zone2 are "P2=120 , P3=120".

### (D) Select between Fahrenheit and Celsius ( P4 ):

You can change temperature measuring unit to °C or °F

### (E) Record Maximum temperature for sensor 1,2 (P5,P6):

The maximum temperature of sensor 1 and 2 will save on P5 and P6. When you turn off and on the controller, it will be ready to save new maximum temperature for sensor 1 and 2.

### (F) Factory default setting:

All of your parameter settings will remain on your controller memory even you turn off the controller, but you can always set the parameters back to factory default setting with this function.

### (G) Temperature Calibration:

You can calibrate both temperature reading with this function. The value can be positive, negative or 0 from -10 to 10.

## Error messages and troubleshooting:

1) When the controller displays " --- " it shows that the sensor is disconnected. The controller will make a beeping sound and the output relay will be closed for safety.

2) When the controller displays "LLL" or "HHH" it shows that the measured temperature by sensor is out of controller temperature range

### Caution:

◆ The maximum current load of the heating or cooling source must not exceed the output relay contact capacity. It will damage the unit and may cause fire.

◆ Check the wiring diagram before wiring the unit. Wrong wiring will damage the controller and may cause fire.

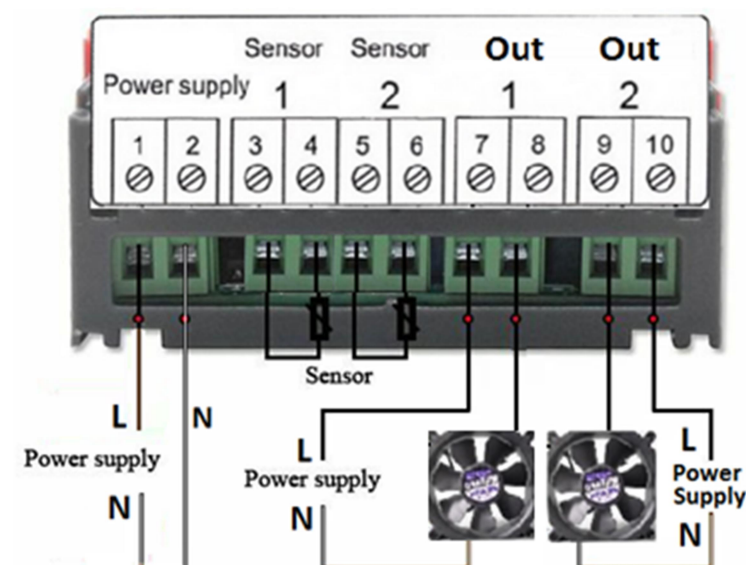
◆ Applying extra force on the screws of controller terminals will break the base. Please tighten the screws gently.

◆ For your safety, turn the power supply off when you are wiring the controller.

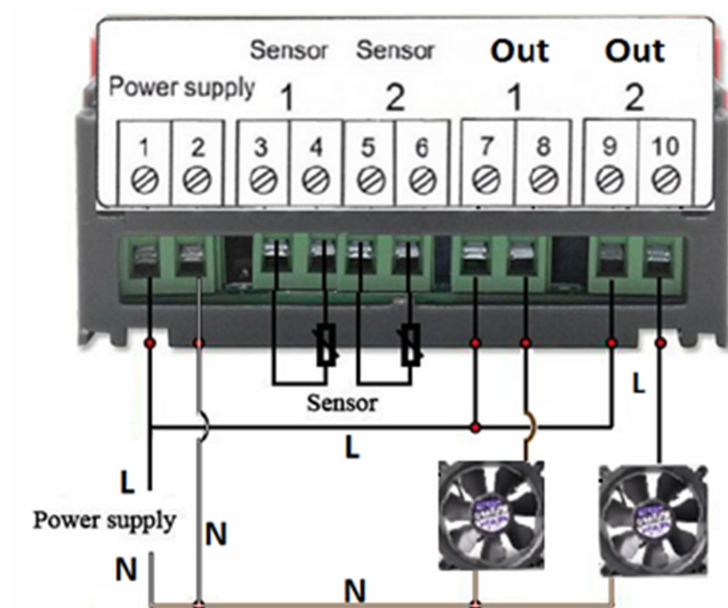
## Wiring Diagram:

You can wire your temperatur controller with two type of following diagram,

### 1- Independent power supply for load:

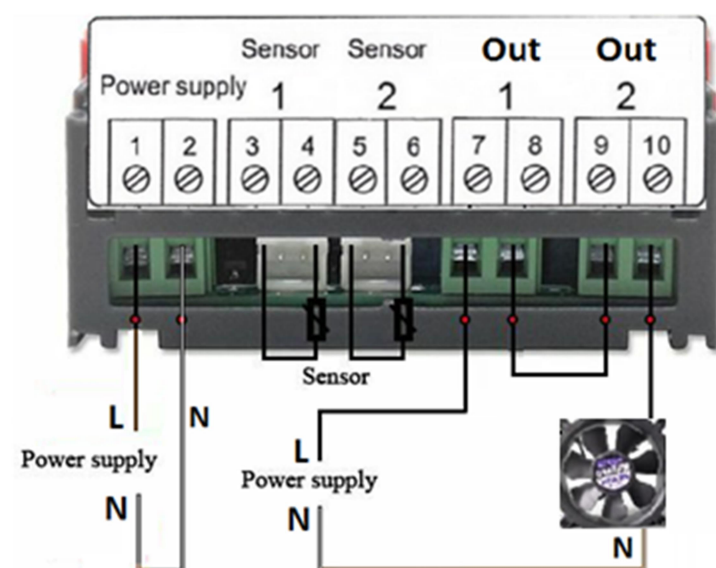


### 2- One power supply for load:



## Wiring Diagram for Series Outputs:

In this case both out1 and out2 has to be ON that fan works,



## Wiring Diagram for Parallel Outputs:

In this case any of outputs (1 or 2) is ON that fan works,

