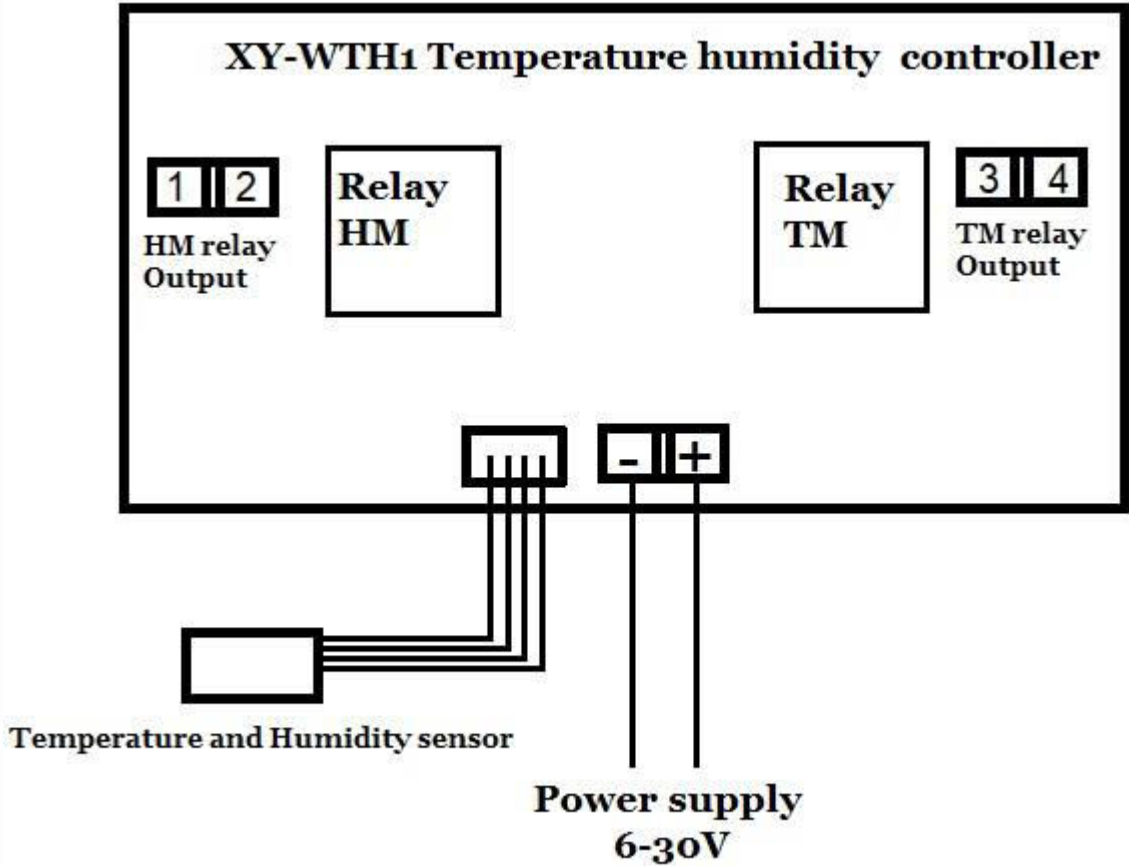


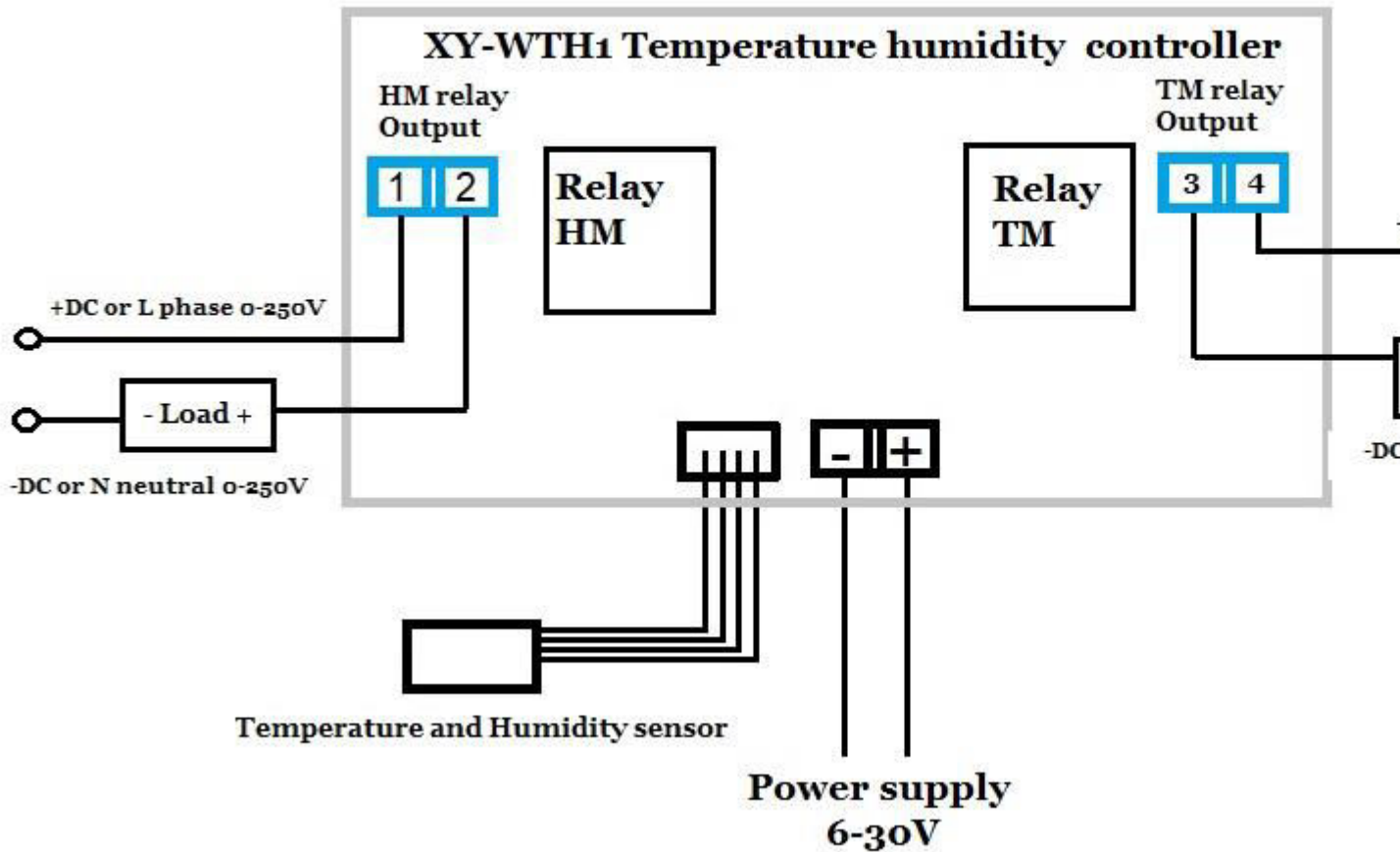
XY-WTH1 controller schematic diagram and function manual:

[More content - video and review](#)

Basic wiring schematic of XY-WTH1 controller



Wiring diagram with load connected to relay:



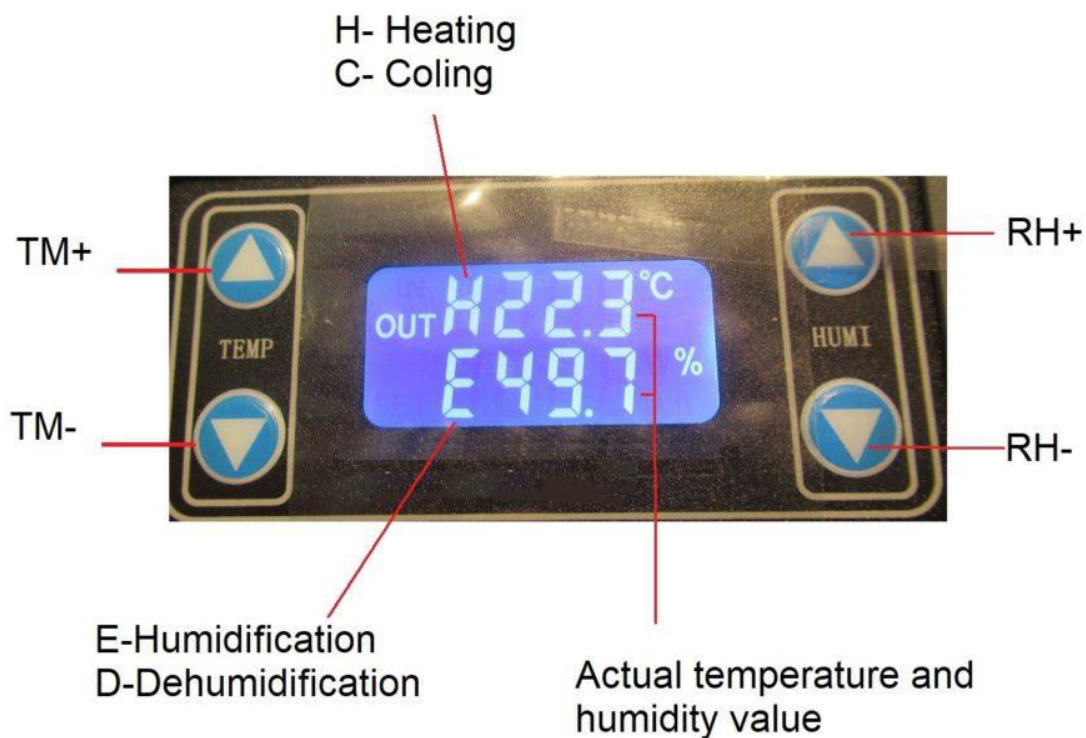
Load can be max 10A .

LOAD means a heater or a cooling compressor for TM relays. The humidifier or dehumidifier is for HM relay output

Relay output is not it is not “electrically” connected to the XY-WTH1 electronics so we can also control the 110V or 220V voltage.

Functions and settings of the XY-WTH1 controller:

On the picture shows the marked buttons with which you will control the XY-WTH1



How to set the temperature for heating or cooling:

**The automatic identification of work mode:**

The system automatically according to the start/stop temperature, identify work mode;

- Start temperature > stop temperature, cooling mode 'C'.
- Start temperature < stop temperature, heating mode 'H'.

**How to set the start/stop temperature:**

1. In the running interface, Long Press **TM+** key more than 3 seconds, into the start temperature settings interface, can be modified by TM+ TM- key, to be modified, waiting for 6s automatic exit and save.



2. In the running interface, Long Press **TM-** key more than 3 seconds, into the stop temperature settings interface, can be modified by **TM+** **TM-** key, to be modified after the parameters, waiting for 6s automatic exit and save;



#### **Cooling mode:**

When the temperature  $\geq$  Start temperature, relay conduction, red led on, refrigeration equipment begin to work.

When the temperature  $\leq$  Stop temperature, relay disconnect, red led off, refrigeration equipment stop to work.

#### **Heating mode:**

When the temperature  $\leq$  Start temperature, relay conduction, red led on, heating equipment begin to work.

When the temperature  $\geq$  Stop temperature, relay disconnect, red led off, heating equipment stop to work.

#### **OFE -Temperature correction function calibration (-10.0 ~ 10°C):**

The system is working for a long time and may be biased, through this function correction, the actual temperature = measuring temperature + calibration value;

## How to set humidity control humidification or dehumidification:

### The automatic identification of work mode:

The system automatically according to the start/stop humidity, identify work mode;

- Start humidity > stop humidity, dehumidification mode 'D'.
- Start humidity < stop humidity, humidification mode 'E'.

### How to set the start/stop humidity:

1. In the running interface, Long Press 'RH+' key more than 3 seconds, into the start humidity settings interface, can be modified by RH + RH - key, to be modified, waiting for 6s automatic exit and save.



2. In the running interface, Long Press 'RH-' key more than 3 seconds, into the stop humidity settings interface, can be modified by RH+ RH- key, to be modified after the parameters, waiting for 6s automatic exit and save.



### **Dehumidification mode:**

When the humidity  $\geq$  Start humidity, relay conduction, green led on, dehumidification equipment begin to work.

When the humidity  $\leq$  Stop humidity, relay disconnect, green led off, dehumidification equipment stop to work.

### **Humidification mode:**

When the humidity  $\leq$  Start humidity, relay conduction, green led on, humidification equipment begin to work.

When the humidity  $\geq$  Stop humidity, relay disconnect, green led off, humidification equipment stop to work.

### **RH-Humidification correction function calibration (-10.0 ~ 10%):**

The system is working for a long time and may be biased, through this function correction, the actual humidity = measuring humidity + calibration value.

## **TTL programing from UART:**

Serial control(TTL level)

Baud Rate:9600bps Data bits :8

stop bits :1

crc :none

Flow control :none

| CMD     | Description                                 |
|---------|---|
| start   | start data upload                           |
| stop    | stop data upload                            |
| read    | Read the param setting                      |
| T:ON    | Temperature relay enable                    |
| T:OFF   | Temperature relay disable                   |
| H:ON    | Humidity relay enable                       |
| H:OFF   | Humidity relay disable                      |
| TS:XX.X | Set start Temperature<br>(-20.0~60.0)       |
| TP:XX.X | Set stop Temperature<br>(-20.0~60.0)        |
| HS:XX.X | Set start Humidity<br>(00.0~100.0)          |
| HP:XX.X | Set stop Humidity<br>(00.0~100.0)           |
| TC:XX.X | Set Temperature Calibration<br>(-10.0~10.0) |
| HC:XX.X | Set Humidity Calibration<br>(-10.0~10.0)    |