

1.Instruction

it is a WIFI digital temperature controller that can be set through the APP or manual

buttons to realize temperature monitoring, heating or cooling control, and push alarm messages of lower/upper temperature limit. Users can also check the device status and historical temperature

curve chart from App log. With time period temperature control function, it is good for Energy saving, consumption reduction and electricity usage staggering.

The product is suitable for various commercial and industrial occasions, such as HVAC systems, thermal processes, boilers, breeding, aquaculture, incubation, intelligent electromechanical

equipment and other heating/cooling control systems.

2.Main Features:

- 1). Real-Time Supervision: Controller and App display real-time temperature at same time.
- 2). Start/stop heating or cooling equipment remotely via App.
- 3). Preset heating or cooling working mode: can auto turn on/off equipment when it reaches to the preset temperature value.
- 4). Set upper and Lower limit value of temperature alarm, real-time push alarm notification to users' smart phone.
- 5). Can use button A and B to turn on/off equipment and set auto-start/stop temperature value manually, so the controller can still work via manual operation when WIFI is offline. But alarm notification to App is only available when network is online.
- 6). Support to set 9 groups of time period temperature control. It is good for Energy saving, consumption reduction and electricity usage staggering.
- 7). History record: Users can also check the device status and historical temperature curve chart from App log.
- 8). User can install the device in power meter box or waterproof box. The product body size is fit for most of power meter box.

3.Specification:

Product Size: 91mm. x 36mm. x 59mm.

Installation: Standard 35mm. mounting rail.

Power supply: AC90V to 250V

Temperature sensor cable with probe: 2 meters.

Detecting temperature range: -40°C to +140°C

Measurement error: $\pm 1^{\circ}\text{C}$

Output: 1 relay output (normal open or normal closed)

Relay lifespan: On/Off about 100,000 times.

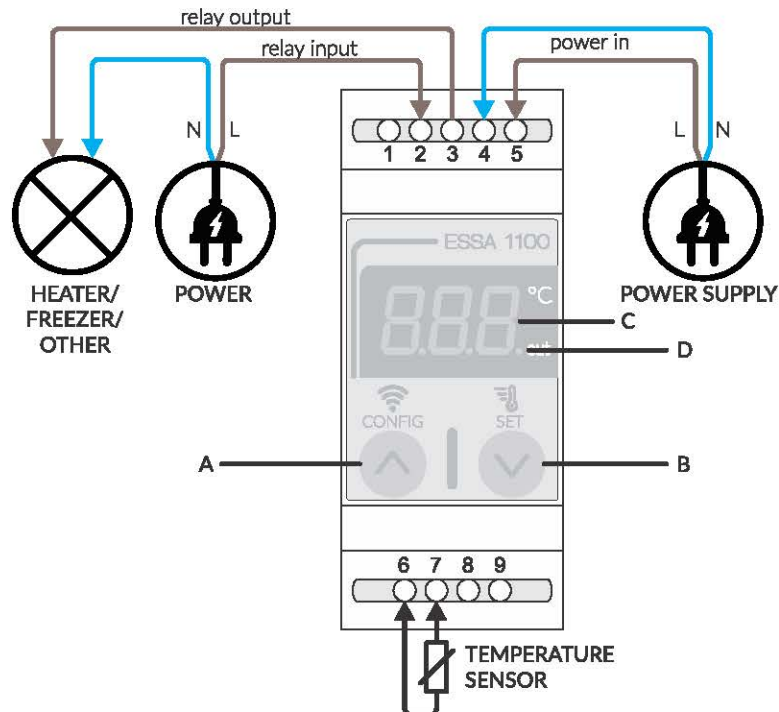
The contact current capacity is 10A, inductive load 2A, can control 2000W resistive load or 400W motor or water pump.

Need larger load, please add AC contactor, or it will cause burning danger.

Device working environment: $\sim -10^{\circ}\text{C} - 50^{\circ}\text{C}$

Tip: The temperature sensor with 2 meters cable is waterproof, can be used for indoor and outdoor detection, but the controller is not waterproof, it must be located indoor.

4. Wiring Diagram



- A: ① CD WIFI configuration button (Short-pressing)
 ② Set start temperature value
 ③ Inquiry the temperature setting value of starting and stopping
- B: ① Turn on/turn off button: It is only effective when the current temperature is between the preset start and stop temperature value.
 ② Set stop temperature value
- C: Display real time temperature
- D: Status LED: The LED flashing when electricity is connected)

1,2,3: a Relay output

1. Normally closed 2. COM 3. Normally Open

Terminals 1 & 2 are NC

Terminals 2 & 3 are NO

Note: The relay output is just a switch, no voltage

4, 5: Working power input: Two version, version A: 90V to 250V

6, 7: Connect with temperature sensor

There is No- distinction of positive and negative

8, 9: No use

5. Operation

5.1 Install App

a. Download Tuya Smart or Smart Life App from google play for android or App store for IOS phone.

b. Install the App c. Register a new account by e-mail

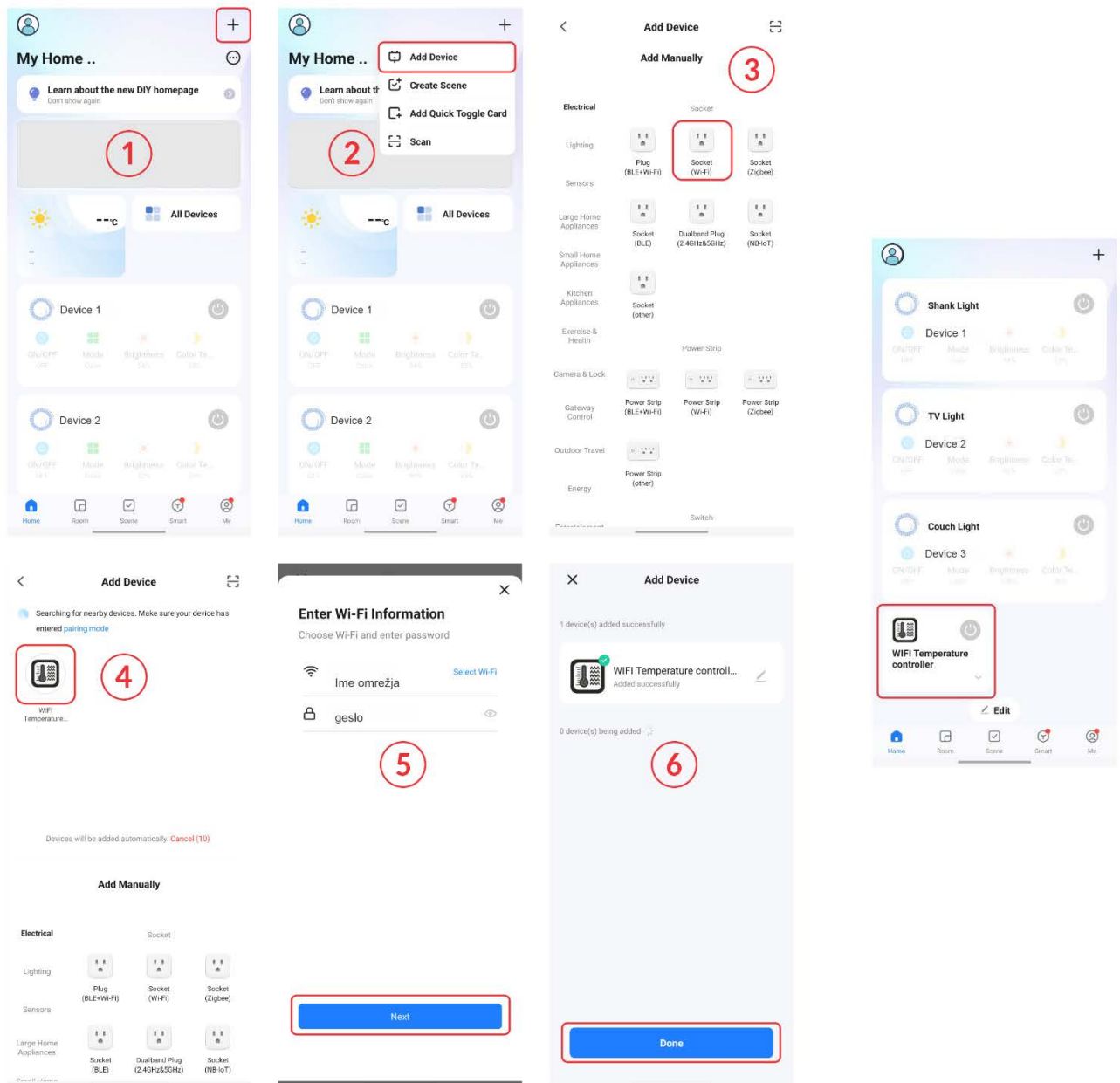
5.2 WIFI configuration (App add device)

1. Before adding the temperature controller, you need to enable Bluetooth on your phone

2. Enter the option to add device (click +). After enable Bluetooth in the app, the device will be automatically searched. If no device is found, please hold down the left button (CONFIG) on the device for 3-5 seconds. The device will display "---", it enters WIFI configuration mode.

3. Add device and configure WIFI by following app prompt. Please note that the device only supports 2.4G WIFI, not 5G WIFI. Normally most 9f 5G routers also includes 2.4G. Please switch to be 2.4G WIFI to connect the device.

4. Wait for about 15 to 50 seconds to finish the configuration.



5.3 APP Instruction

The screenshot shows the 'WIFI Temperature controller' app interface. It features a blue background with white text and icons. The top bar displays the title 'WIFI Temperature controller' with a back arrow on the left and an edit icon on the right. Below the title, the current temperature is shown as '28.4°C'. The interface is divided into several sections: a status section showing 'dp_work_mode' (Cooling) and 'dp_sensor_status' (Normal); a control section with 'Switch', 'Alarm-Temp', and 'Log' buttons; a temperature setpoint section with 'Temp-On' (50.0°C) and 'Temp-off' (49.0°C) buttons; a limit section with 'Lower Limit' (-40.0°C) and 'Upper Limit' (60.0°C) buttons; a calibration and delay section with 'Calibration' (0.0°C) and 'dp_delay' (0S) buttons; and a bottom section with 'dp_period' (0), 'dp_start_tim..' (00h00min), and 'dp_stop_time' (00h00min) buttons. Numbered callouts (1-15) point to specific elements: 1. Edit icon, 2. Real time temperature, 3. Work mode, 4. Show temp. sensor status, 5. Control relay switch ON/OFF, 6. Alarm ON/OFF, 7. Log: Status record & historical temp curve chart, 8. Set start-temperature, 9. Set stop-temperature, 10., 11. Set temperature of lower/upper limit, 12. Temperature calibration, 13. Relay output delay, 14. Set Control time period, 15. Set temperature control schedule.

WIFI Temperature controller

Temperature
28.4°C

dp_work_mode: Cooling
dp_sensor_status: Normal

Switch Alarm-Temp Log

Temp-On: 50.0°C
Temp-off: 49.0°C

Lower Limit: -40.0°C
Upper Limit: 60.0°C

Calibration: 0.0°C
dp_delay: 0S

dp_period: 0
dp_start_tim.: 00h00min
dp_stop_time: 00h00min

1. Device name: can be changed

2. Real time temperature

3. Work mode: Heating / Cooling

4. Show temp. sensor status

5. Control relay switch ON/OFF

6. Alarm ON/OFF

7. Log: Status record & historical temp curve chart

8. Set start-temperature

9. Set stop-temperature

10., 11. Set temperature of lower/upper limit

12. Temperature calibration

13. Relay output delay

14. Set Control time period

15. Set temperature control schedule

1.Device name: can be edited.

2.Display real time temperature

3.Working mode: heating or cooling

4.Show temperature sensor status.

5.Control relay switch on/off:

Note: The manual switch of App is only effective when the current temperature is between the preset start and stop-temperature value.

6.Alarm: Enable/Disable alarm function of upper/lower temperature limit.

7.Log: can inquiry the history record of device power on/off status and alarm messages, and historical temperature curve chart.

8/9: Set start-temperature and stop temperature.

10/11: Set alarm temperature of upper / lower limit

12.Temperature calibration

13.Relay output delay: set time delay of relay starting,

14/15: Support to set 9 groups of time-period temperature control schedule.

5.4 Preset Heating or Cooling working mode:

When the preset start temperature is higher than stop value, it is cooling mode. For example, $xx \geq 25^{\circ}\text{C}$, start the cooling equipment; $xx \leq 10^{\circ}\text{C}$, stop it.

When the preset start temperature is lower than stop value, it is heating mode. For example, $xx \geq 5^{\circ}\text{C}$, start the heating equipment; $xx \geq 20^{\circ}\text{C}$, stop it.

5.5.Set Upper and-Lower limit value of temperature alarm:

For example: Set the temperature range $12.5 \sim 37.9$ centigrade degree. When the temperature in house is within the temperature range, the controller will work normally. If the temperature is lower than 12.5 centigrade degree or higher than 37.9 centigrade degree, it will push alarm notification to users' smart phone via APP.

Note: 1. Please make sure app notification authority is enabled.

Open App --- Me --- Settings --- App Notification --- then enable all the options.

2. After you enter the App main interface of device control, please light up the alarm icon to enable the "alarm" function. If you don't need alarm messages pushing, please disable it by clicking the alarm icon again to switch off the alarm light.

5.6. History Record: Users can inquiry the history record of device power on/off status and alarm messages, and historical temperature curve chart from App log.

5.7 Time-period Control: After set the work mode, cooling or heating, users can add time-period control as needed. Support to max set 9 groups of time periods. All the setting will only be activated within the control time period. With the function it provides users the best solution for Energy saving, consumption reduction and electricity usage staggering.

For example, work mode: cooling, start-temperature 30°C , stop-temperature 15°C . The first control time period: 8:00 to 10:00, the second control time period: 16:00 to 18:00. During 8:00 to 10:00, and 16:00 to 18:00, it will auto start refrigeration equipment to reduce the temperature when temperature is higher than 30°C , auto stop refrigeration equipment working when temperature is reduced to be 15°C . Outside of the control time period, users can turn on/turn off relay output manually.