



## Technical Specifications:

- **Power Supply Voltage:** 120VAC (North America) and 220V (EU)
- **Output Power:** Max 120V
- **Output Current:** Max 20A
- **Temperature Range:** Depends on Model No.  
-40°F to 1830°F (-40°C to 999.9°C) **K type TC**  
Or -22°F to 572°F (-30°C to 300°C) **NTC 100K**
- **Dimensions:** 200 mm x 120 mm x 100 mm

## Product Settings via Controller

Please consider that if you want to change parameter setting via the controller panel face, the functions are limited. So if you want full functions, please skip this section and check setting via the app on your cellphone.

### Product Code Introduction

Code	Function	Range	Default
0FP	High Temperature Alarm	-40.°C-999.9°C	120°C
LFP	Low Temperature Alarm	-40°C-999.9°C	-40°C
DLY	Delayed Start	0 - 10s	0s
OFF	Temperature Calibration	-20°C - 20°C	0°C
bEP	Buzzer (On/Off)	On/Off	On
F-C	Temperature Unit Switching	°C/°F	°C

### Instructions:

1. Hold the settings button (⚙️) to access the parameter setting.
2. Press the setting button (⚙️) again to switch to the next option.
3. Adjust Parameter Values: Use the ▲ (Up) and ▼ (Down) buttons to adjust the value of the selected parameter.

4. Save and Exit the Menu: Long press the **setting button** (⚙️) to exit the settings menu.

## Product Settings via the App

### 1. Download the App

Download the **Smart Life, Tuya Smart** or **Doodel Smart APP**. If you have not registered an account after opening the APP, please register an account with your mobile phone number or email.

### 2. Pairing the Controller with Smart Life app

- Long press the ▲ key (on the controller panel face) until it displays APP/ON.
  - Then, long press the ▼ key until it displays APP/---
- Then click on Add device (+) and follow the prompts on the app.

### 3. Matching Instructions

- The product will automatically search for nearby phones and WiFi and link them.
- Make sure your controller is in pairing mode (APP/---
- Connect your mobile phone to the WiFi near the controller and enable Bluetooth.
- Open the app, tap the "+" icon in the upper-right corner to add the device, enter the WiFi password, and click "Next" to complete the process.

**Note:** Ensure the WiFi is set on 2.4G network.

After pairing your controller you will access different and common functions by Selecting Manual or Automatic mode, as you see in the app. In order to program your temperature controller please check the pictures on the next page, your app on your cellphone and the following items:

1. **Temperature Unit:** Tap the temperature unit option to toggle between °C and °F.
2. **State:** It shows if the working status is ON/OFF and function mode is Heating/Cooling.
3. **Setting Temperature and Hysteresis:**
  - **Heating Mode:**  
**Setting temperature=ST      Hysteresis=H**
    - When current temperature ≤ ST-H , the relay activates and starts the heating equipment.
    - When current temperature ≥ ST , the relay disconnects and stops heating.  
Example: ST = 30.0°C, H= 5.0°C. Heating starts at 25.0°C and stops at 30.0°C.
  - **Cooling Mode:**
    - When current temperature ≥ ST+H , the relay activates and starts the cooling equipment.
    - When current temperature ≤ ST , the relay disconnects and stops cooling.  
Example: ST= 30.0°C, H= 5.0°C. Cooling starts at 35.0°C and stops at 30.0°C.

## Automatic mode



6. **Thresholds (High/Low Temperature Alarm)**
  - o **High Temperature Alarm (OFF):** Disconnects relay when temperature exceeds the threshold and alarm goes off on the controller.
  - o **Low Temperature Alarm (LEP):** Disconnects relay when temperature falls below the threshold and alarm goes off on the controller.
7. **Temp Offset (Temperature Calibration):** Correct temperature deviations using the offset function:  
Current temperature = measured temperature +/- calibration value.
8. **Switching between Automatic/Manual Mode:** Depends on your project you can choose between manual or automatic mode.
9. **Mode (Heating/Cooling Switching):** Switch between heating and cooling modes.
  - (**Delayed Start-up**): Use the delayed start-up option (dLY) to configure the delay by second.
10. **Reserve:** Programming and predefine **multi tasks** once/repeatable with multi execution **times**, multi **temperature settings** and also multi **hysteresis settings** for complex programming. For example:

## Manual mode



- Task1:  
Execution time:2025-03-24 18:30  
Mode:Heat doneSet:350°F Hys:5°F
  - Task2:  
Execution time:2025-03-24 18:50  
Mode:Heat doneSet:250°F Hys:5°F
  - Task3:  
Execution time:2025-03-24 19:00  
Mode:Heat doneSet:60°F Hys:5°F
11. **Circle (Cyclic Time Tasks):**
    - o Define start times and execution durations for repeated tasks.
    - o Example: Task 1 starts for 2 hours, pauses for 1 hour, and resumes for 2 hours.
  12. **E-stop (Emergency OFF Operation):** Press "STOP" to immediately disconnect the relay and stop all operations. Operation will begin by clicking on it once more.
  13. **Inching (Countdown timer):** Enable Inching Mode for precise control with duration's time from **1s to 59m and 59s** (works like a countdown timer).
  14. **Manual Switch**  
Turn ON/OFF your Heating or Cooling device manually.
  15. **Threshold:** Enable or disable the buzzer as required.

4. **Timer (Timed Tasks):** Set the desired execution time (once/repeat) on a 24/7 clock and save the actions (start/stop work).
5. **Delay:** If needed, set the delayed start/stop time (hours/minutes).