

Thermometer + Control DS18B20

User Manual



Description of Working Mode:

After the product is powered on, the initial mode selection is displayed as "P-0". At this time, press the SET key to select the "P1-P 8" mode, and press the ENTER key to enter the corresponding mode. Press and hold the ENTER key for 3 seconds in any mode to stop running, then return to the mode selection state.

1. P-1 Time relay mode:

Cyclic execution: You can press the SET button to enter three sets of parameters (pull-in time T1, release time T2, execution times). The value to be set flashes at a frequency of 1 Hz. It increases to 9 and if the values of T1 and T2 are set and the number of executions of the third group of parameters is set to 0, infinite loop execution. Long press the SET button during operation for three seconds to release, you can switch to display the countdown value or the number of executions.

Single execution timing: If only T1 (pull-in time) and T2 (release time) are set to 0, the relay will stop after the T1 time runs and does not recirculate. It can be used as a timer at this time. When finished, the relay is released. At this time, short press the ENTER key, the system will restart the timing with T1 time.

In the setting state, it can be switched to minute timer or second timer. In the state of short pressing the SET button to enter the time setting state (the setting digit flashes), press the SET button for 3 seconds to release, the rightmost digit of the digital tube The decimal is lit, indicating that the timer value is minutes, and if the decimal point is not lit, the timer is seconds.

2. P-2 Voltage relay mode:

In the voltage relay mode, it can detect the externally input DC voltage, and the over-limit relay operates. You can press the SET key to enter the upper and lower voltage settings. The first group when entering the setting is the upper limit, and the second group is the lower. The third group is the voltage correction value (-0.5V ~ + 0.5V).

During the voltage detection operation, press and hold the SET button for three seconds and then release, the control state of the relay will be reversed (the pull-in change is released).

3. P-3 Voltage control time relay mode:

After you set the timer operating parameters and the upper and lower limits of the voltage control, then enter this mode to detect the voltage to control the start or stop of the timer. Short press the SET key to set the upper and lower voltage limits of the control timer. Press and hold the SET button for three seconds to release, you can select the voltage to exceed the upper limit or lower than the lower limit to start the timer.

4. P-4 Temperature control relay mode:

The lower limit of the temperature setting set identical with the voltage relay mode, when the value is minus, the last point on the LED indicates a temperature of minus.

In the temperature control relay mode, you can switch between "heating" or "cooling" mode. If you need to start the relay when the temperature exceeds the upper limit, or start the relay when the temperature is lower than the lower limit, you can switch by pressing the SET button for three seconds and then releasing it.

5. P-5 Temperature control time relay mode:

This mode can detect the temperature to control the start or stop of the timer. At this time, press the SET key briefly to set the upper and lower voltage limits of the control timer. If you need to start the timer when the temperature exceeds the upper limit, or start the timer when the temperature is lower than the lower limit, you can switch by pressing and holding the SET button for three seconds and then releasing it.

6. P-6 Temperature control voltage relay mode:

In this mode, the relay pull-in or release needs to meet the setting conditions of voltage relay mode and temperature control relay mode at the same time. For example, in the "P-2" mode, you set the voltage to be higher than 12V, and the relay is lower than 10V. In the "P-4" mode, the temperature is lower than 30°C and the temperature is higher than 40°C. When the relay is released at 40°C, the relay pull-in needs to meet the voltage higher than 12V and the temperature lower than 30°C, otherwise the relay will keep releasing. You can reverse the controlled state of the relay by pressing and holding the SET button for three seconds and then releasing it.

In this mode, you can press the ENTER key to switch the displayed temperature value or voltage value.

7. P-7 Temperature control voltage time relay:

In this mode, the start or stop of the timer needs to meet the control conditions of the voltage and temperature relay at the same time. The setting and operation methods are the same as the temperature control voltage relay mode. For the starting conditions of the control timer, see section 6 Temperature control voltage relay, timer parameters See section 1 for settings.

8. P-8 Temperature control alarm mode:

In this mode, the temperature can be set within the upper and lower limits of the relay release (long press the SET button for three seconds can be reversed to attract), when the temperature is above the upper limit or below the lower limit, the relay is attracted (or released), that is, the temperature exceeds the relay operates within a fixed range.

If the timer pull-in time T1 is not set to 0 in "P-1" mode, the relay will be controlled by the timer when the temperature exceeds the upper and lower limits.