# Thermostat W3230

# **Function Description of W3230**

**Temperature Control Range:** -50°C ~ 120°C

**Temperature Control Accuracy:** 0.1°C

Color of Displaying: red / blue

Power Supply Voltage: 110~220V AC

Data Storage: yes

Relay: 10A

Dimensions: 79mm\*43mm\*26mm

**Opening Size:** 74mm\*39mm

**Code Description:** 

Code	Explanation	Setting Range	Factory Setting
P0	Heating / Cooling	H/C	С
P1	Hysteresis	0.1°C - 30°C	2.0°C
P2	Setting Limits to the Maximum	P3 ~ +120°C	120°C
P3	Setting Limits to the Minimum	-55°C ∼ P2	-40°C
P4	Temperature Correction	-10.0°C ~ 10.0°C	0.0°C
P5	Delay Start	0 - 10 minutes	0
P6	High-temp. Alarm (depends on model)	ON-OFF	OFF
P7	Data Lock	ON-OFF	OFF
P8	Factory Reset	ON-OFF	OFF
P9	Celsius / Fahrenheit	HS / FC	HS

# **Temperature Setting**

After the temperature controller is connected to the power, the actual temperature is shown on the red display. When you press the SET key, the blue display will flash. Press UP and DOWN keys to adjust the temperature.

# P0: Working Mode

This value should be set when you start using the thermostat. If it is used for heating, this parameter should be set to "H". Otherwise, if used for cooling it should be set to "C".

### P1: Hysteresis

The difference between the temperature at which the thermostat switches off - and the temperature at which it switches on again.

Example: We set the heating mode and the temperature is 37~40°C – The hysteresis is 3°C.

### P2-P3: Setting Limits

These functions set the limit values of the temperature range. Under the normal state, the setting range is between -40°C and +120°C. If you don't need so big range, you can set the values of these parameters to shorten it.

*Example:* P2 is set to 50°C, P3 is set to 20°C – The temperature can be set from 20°C to 50°C.

### **P4: Temperature Correction**

This function is used to correct the temperature in case there's a deviation between the measured temperature and the actual temperature.

Example: We measure the temperature of  $25.6^{\circ}$ C and the actual temperature is  $25.8^{\circ}$ C – You can set P4 to  $0.2^{\circ}$ C, so the displaying temperature will be  $25.8^{\circ}$ C.

### P5: Delay Start

This function is generally used for cooling the refrigeration compressor. So, if you purchase the thermostat for the refrigerator, this value has to be set to 3-6 minutes (depending on the size of the compressor). If it doesn't control the compressor, this value should be set to 0.

## P6: High-temperature Alarm

When the actual temperature exceeds the upper temperature limit of +120°C, the thermostat will display flashing "CCC" on the red display. In case of a short circuit, the blinking "LLL" message will be shown on the red display.

#### P7: Data Lock

If you need to prevent other people from changing your set temperature, you can set P7 to ON after finishing the setting of the parameters. After setting to ON, the temperature and the internal parameters cannot be changed.

## **P8: Restore Factory Settings**

By setting P8 to ON, all the settings will be reverted to their factory default.

### **P9: Temperature Scale**

You can switch between Celsius (°C) and Fahrenheit (°F) temperature scale by modifying value of this parameter ("HS" – Celsius, "FC" – Fahrenheit).

### **Setting Examples**

### **Cooling Mode**

Controlling refrigeration equipment will stop cooling when the temperature is 25°C and start cooling when the temperature is 30°C. To set the working mode like this, follow the next steps:

- 1. In the state of displaying the normal temperature, press the SET key to get the flashing numbers on the blue display; find the value 25.0°C by navigating with UP and DOWN buttons and finally press the RESTART key to confirm and get back to display state.
- 2. To access the parameter setting mode, press the SET key and hold it for 5 seconds until "P0" appears on the screen. Then press the SET key to access the P0 code parameter. By pressing UP / DOWN, you can adjust between different modes. Choose "C" mode and press the RESTART key to confirm and get back to display state.
- 3. Go to parameter setting mode again by holding the SET key for 5 seconds. When P0 is displayed on the screen, press the UP button to adjust to the code P1 (hysteresis) and then press SET to access the P1 code parameter. Adjust the value to 5.0 by navigating with UP/DOWN buttons and finally press the RESTART key to confirm and get back to display state.

If you need to set other parameters, please refer to above settings.

## **Heating mode**

Controlling heating equipment will stop heating when the temperature is 30°C and start heating when the temperature is 25°C. To set the working mode like this, follow the next steps:

- 1. In the state of displaying the normal temperature, press the SET key to get the flashing numbers on the blue display; find the value 25.0°C by navigating with UP and DOWN buttons and finally press the RESTART key to confirm and get back to display state.
- 2. To access the parameter setting mode, press the SET key and hold it for 5 seconds until "P0" appears on the screen. Then press the SET key to access the P0 code parameter. By pressing UP / DOWN, you can adjust between different modes. Choose "H" mode and press the RESTART key to confirm and get back to display state.
- 3. Go to parameter setting mode again by holding the SET key for 5 seconds. When P0 is displayed on the screen, press the UP button to adjust to the code P1 (hysteresis) and then press SET to access the P1 code parameter. Adjust the value to 5.0 by navigating with UP/DOWN buttons and finally press the RESTART key to confirm and get back to display state.

If you need to set other parameters, please refer to above settings.

# Wiring

# ~110-220V Connecting Mode



