

Product Introduction

This cooling & heating thermostat with touch screen is suitable for the 2-pipe fan coil system. And this product includes three functions: ON/OFF state memory function, de-frost protection function and sleeping function.

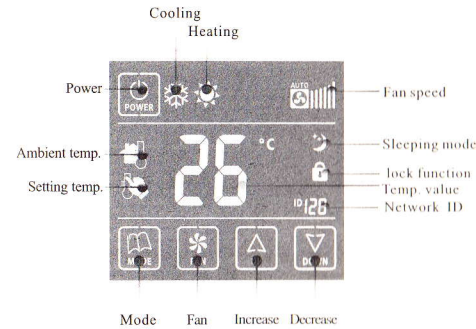


Technical Data

1. Power Supply : 95-240VAC±10% 50/60Hz
2. Control Performance: ON/OFF Control Output switch
3. Function: Cooling / Heating
4. Max Output : 3A/250VAC
5. Wiring port : ≤1.5 mm²
6. Working temp. and Humidity : 0~50°C, less than RH90%(No condensation)
7. Storage temp. and Humidity : 20°C~30°C, RH45%~RH65%
8. Setpoint range/ Setting unit : 10~30°C/1°C per step
9. Accuracy : ±1°C
10. ON/OFF differential Temp. : 1°C
11. Suitable System: 2-pipe
12. Suitable Valve: 2-line / 3-line valve

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LCD Display



LCD display

Lock function setting : In the ON or OFF state, press “” key first, then press “” key together for 5s, it will be the lock state when the LCD displays “”, “” key is available to operate in this mode. The same operation will unlock the thermostat.

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Operation Instruction

When the ambient temp. is 3°C higher than the setting temp. The fan speed will be “High” automatically;
When the ambient temp. is 2°C higher than the setting temp. The fan speed will be “Med” automatically;
When the ambient temp. is equal to or 1°C lower than the setting temp. the fan speed will be “Low” automatically.

In the Heating mode.

When the ambient temp. is 3°C lower than the setting temp. the fan speed will be “High” automatically;
When the ambient temp. is 2°C lower than the setting temp. the fan speed will be “Med” automatically;
When the ambient temp. is 1°C lower than or equal to the setting temp. the fan speed will be “Low” automatically.

4. Temp. compensation (range: -9~9°C): In the OFF state; press “” for 3 seconds to enter this mode, press “” or “” to adjust the temp., press any other key to save the setting or automatically saved after 3 seconds.

5. Sleeping Function: In the ON state, press “” for 3 seconds to enter the sleeping function, the LCD will display “”; press “” or “” to adjust the sleeping temp.; press “” to save or automatically saved after 3 seconds. In the sleeping function state, the fan speed is automatic, press “” or “” to cancel this function.

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Operation Instruction

In the cooling mode, when the current setting temp. is lower than the sleeping temp., the setting temp. will increase 1°C every half an hour until it is equal to the sleeping temp.. Besides, The setting temp. only changed in the sleeping mode.

In the heating mode, when the current setting temp. is higher than the sleeping temp., the setting temp. will decrease 1°C every half an hour until it is equal to the sleeping temp.; The setting temp. only changed in the sleeping mode. In the other condition of sleeping mode, the setting temp. remains unchanged.

6. De-frost protection: In the OFF state, when the room temp. is below 5°C, LCD display “”, the valve will be open automatically.

7. ON/OFF memory function: To memorise the ON/OFF state before power failure. In the OFF state, press “” for 3 seconds, to on or off this function and “on” or “oF” will be show on LCD display to indicate this function is on or off.

8. LCD contrast adjust: In the OFF state, press “” for 3s to enter this setting, then press “” or “” to adjust the contrast. Press “” to confirm and quit the setting.

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Operation Instruction

9. ON/OFF backlight: In the OFF state, keep pressing “”, then press “” to enter the setting, if the LCD display is on, then the LCD will keep-lighting, if the LCD display is oF, then the LCD will be off after 15s.

10. Fan stop/open setting: In the OFF state, keep pressing “”, then press “” together for about 5s to enter the setting, if the LCD display is on, it means that the fan will not stop when the temperature has reached to the setpoint. If the LCD display oF, it mens that fan will stop only if the temperature reaches the setpoint.

• Network protocol instruction: ID setting: In the OFF state, keep pressing “” then press “” for 3s to enter ID setting, press “” to increase the ID, press “” to decrease the ID, setting value from 1to 128.

Communication protocol: Modbus

ID: 1-128

band rate: 9600, n, 8, 1

readable: field: on/off state, setting temperature, Mode, Fan speed, room temperature, cooling valve, heating valve, lock state

Writable: field: on/off state, setting temperature, mode, fan speed, lock state

Field meaning:

Operation Instruction

Power: In the OFF state, press “” key to change the On/Off states.

Increase/Decrease: In the ON state, press “” or “” key to set the setting temp..

Mode: In the ON state, press “” key to switch the cooling, heating or ventilating mode. “” means cooling mode, “” means heating mode.

Fan speed: In the ON state, press “” key to choose the fan speed (High, Med, Low or Auto) in the cooling or heating mode ; (High, Med or Low) in the ventilating mode.

1. Temp. setting: In the ON state, press “” or “” key to adjust temp., press any other key to save or automatically saved after 3 the setting seconds.

2. Valve output: In the cooling mode, when the ambient temp. is higher than the setting temp., the valve will be open; when the ambient temp. is equal to or lower than the setting temp., the valve will be closed.

In the heating mode, when the ambient temp. is lower than the setting temp., the valve will be open; when the ambient temp. is equal to or higher than the setting temp., the valve will be closed.

3. Auto Fan speed Function:

In the Cooling mode

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Operation Instruction

40001, on/off state: on: 0x01(0001H); off: 0x000(0000H)
40002, room temperature: 16 hexadecimal format 0-50 °C, (00014H means 20°C)

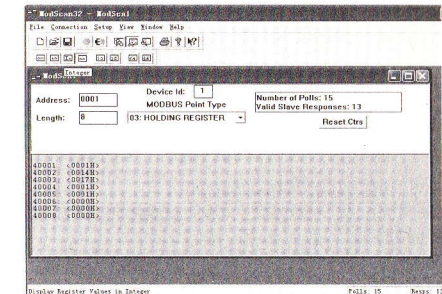
40003, setting temp: 16 hexadecimal format 10-30°C, (0017H means 23°C)

40004, Mode: cooling: 0001H, heating: 0002H

40005, Fan speed: low speed: 0001H, med speed, 0002H, high speed, 0003H, auto low speed: 0005H, auto med speed: 0006H auto high speed: 0007H

40006, cooling valve on/off state: ON: 0001H, OFF: 40007, heating valva on/off state: ON: 0001H, OFF:

40008, Locking state: Lock 0001H, un-lock 0000H

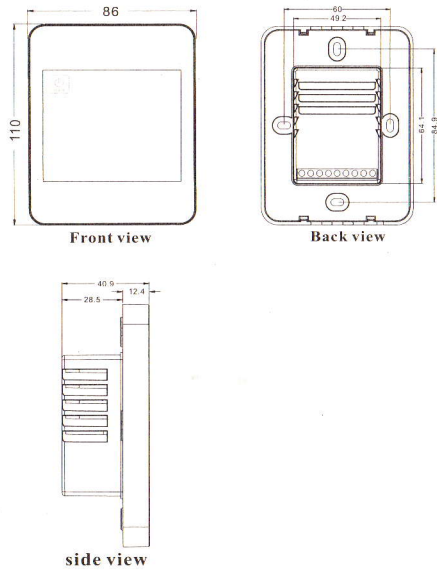


Display Register Values in Datasheet

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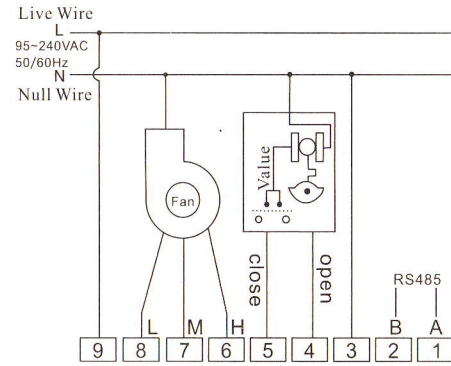
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Dimensions



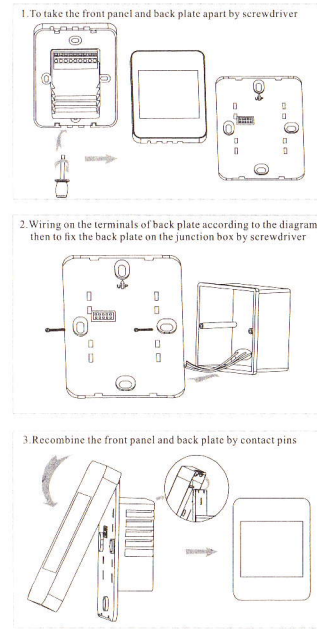
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Wiring Diagrams



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Installation Diagrams



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Trouble Shooting

Fault phenomena	Reasons	Methods
No display	Power line input errors or without Input	Check the power lineconnection or the powersupply
The temp. display abnormal	The circuit of temp. sensor is disconnected or shorted	To welding the circuit, if it is disconnected or to separate the circuit,if it is shorted
	The temp. is not calibrated	To calibrate the temp. by setting the parameter of temp. compensation

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