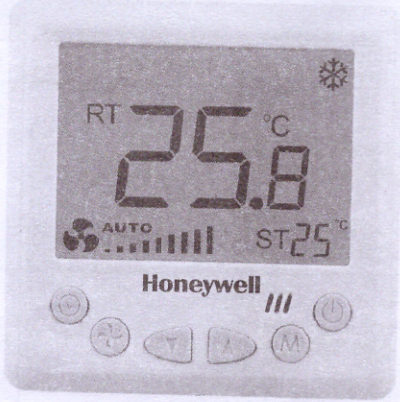
Honeywell

WM Series FCU Thermostat



I. PRODUCT DESCRIPTION

WM series room temperature controller · adjust the advanced micro-cpu, · through the inner NTC to detect the room temperature, which compare with the user setting temperature to reach the room constant temperature, and automatic control for heating and cooling or on/off valve to keep indoor constant temperature.

This series controller emphasize on the safe design and comply with the regulations and standards of the State for their safe use, which apply in industrial , commercial and family room area .

II. TECHNIQUE PARAMETER

- Rated voltage & Frequency: 100~240Vac ±10%, 50/60HZ
- Power consumption: <2W
- LCD Display
- NTC10K sensor
- Temperature display resolution: 0.1℃
- Control accuracy: ±1℃ at 25℃
- Display range: 0 ~ 50℃
- Setting temp: 5 ~ 45℃ step 1℃
- Temperature humidity: 5~95RH%, without frozen
- Output power: 2A (Inductive load), 5A(Resistive load)
- connection terminal: 1*2.5mm*2
- keypad: tact switch
- Shell: ABS
- Dimension: 86*86*14mm
- Mounting aperture:61mm

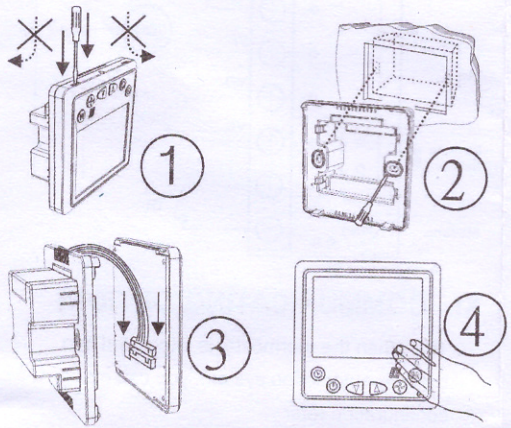
III. MAIN FUNCTION

- Heating/Cooling/Fan only mode
- With manual 3 fan speed adjustment and Automatic speed regulating
- Multi-option setting function
- Temperature deviation correction function (offset adjustment)
- With LCD- backlight
- With EEP-memory function
- Communication function : Modbus (Option)

IV. PACKINGLIST ACESSORIES

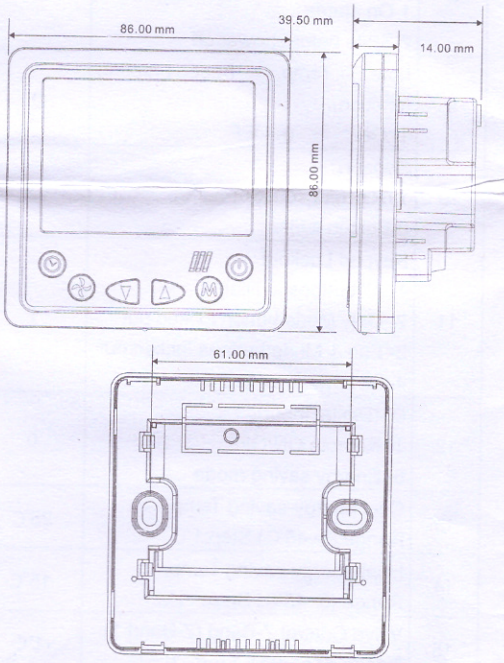
Thermostat	1PC
Instruction	1PC
Screw	2PCS

V. INSTALLATION



- Be sure to power-off before the installation, inorder to avoid risks of electric shock, or damages to the system components.
- Select the correct installation location, and do not install the product under the direct sunlight or in damp location.
- The rear panel should be screwed to the wall switch box.
- According to the wiring diagram, correctly connect the power supply & valve& fan electromotor

VI. OUTLINE DIMENSION



VII. KEYPAD INSTRUCTIONN

"⏻": On/Off
"Ⓜ": Function mode
"Ⓐ": Increase
"Ⓥ" : Decrease
"⊕": Fan-speed
"◎": N/A

VIII. OPERATION INSTRUCTION

■ Power On/Off :

Please make sure the power-supply and wiring connection before ON. Press "⏻" key can turn on or off the thermostat .

■ Mode setting:

Apply "Ⓜ" as mode choose : "cooling" / "heating" / "fan only"

■ Fan key:

Apply "⊕" key as fan choose:

(1) When work mode as cool or heat mode:
auto fan→hi→mid →low→auto fan…

(2) When work mode as Fan only:
hi→mid →Low→ hi…

(3) After setting fan ,the setting valve will be memory

■ Temperature setting:

ON status press "Ⓐ"or "Ⓥ" set temperature , the temp setting range is : 5~45°C，step 1°C，the value will be memory.

■ SENSOR ABNORMAL:

When sensor short or > 60℃: LCD shows 'HI'

When sensor opens or <-10℃: LCD shows 'LO'.

(When above temperature abnormal, the valve and fan output will not affect, just to prompt).

■ DI FUNCTION:

Set the internal-setting item 12

as 0 : Energy saving function

When the DI input terminal is shorted, the controller enters the energy saving function and the energy saving icon "" is displayed. Enter the automatic fan speed function in cooling / heating mode,or the fan speed function selected by internal item 17 in fan only mode.

When the DI input terminal is opened, the energy saving function is exited, the energy saving icon "" is hidden, and the fan speed follows its original condition.

When in energy saving mode, the set temperature is automatically set to the internal setting item 13/14. After the energy saving function is cancelled, the temperature is controlled according to the original set temperature value.

as 1 : Remote on/off function

When the DI input terminal is shorted, the controller is turned off (Remote off)

When the DI input terminal is opened, the controller is turned on (Remote on)

■ Inner item:

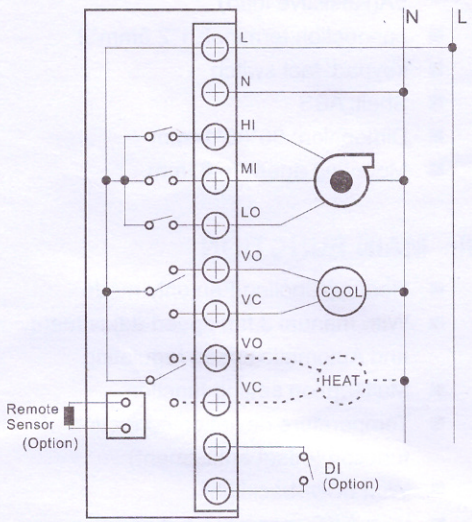
After power-on, press "Ⓜ" +"Ⓥ"for 3s in to inner choosing function: into set zone, display 1(represent the 1st choosing set).,the temp display zone display this value.. Press "Ⓜ" key to adjust item and press "Ⓐ" · "Ⓥ" to adjust content

IX. INNER SETTING INSTRUCTION

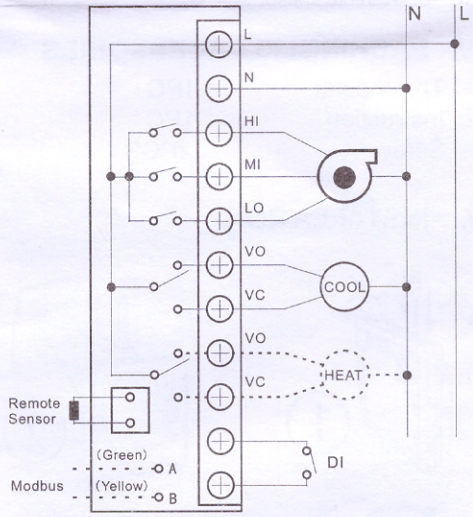
Item	Instruction	Default
1	Modbus address: Range: 01~31; Step:1	01
2	Set Temp. upper limit Range:(5~45°C); Step:1°C	30℃
3	Set temp. low limit Range:(5~45°C); Step: 1°C	10℃
4	Display Temp. Adjustment (offset) Range: (-5 ~ 5°C); Step: 0.5°C	0.0℃
5	Cool/Heat Mode 1- Cool / Heat Mode 0- Only cooling mode	1
6	Fan Operation 1- Stop the Fan when Temp. Set point is achieved 0- Never Stop the Fan	0
7	Two/ Four pipe selection: 1- Four Pipe 0- Two Pipe	0 or 1 Depends on model
8	Power on States: 0-Off States 1-On states 2-State before power off	0
9	Low Temp. freeze-proofing function: 1- ON 0- OFF	0
10	Sensor: 1- Remote sensor 0-Built-in sensor	0
11	Keypad Lockout 1- All buttons available 2- Only Mode button locked out 3- Fan & Mode buttons locked out 4- All buttons locked out	1
12	DI (Digital Input): 1- Remote ON/OFF 0- Energy saving mode	0
13	Cool energy-saving Temp. Range:(5~45℃) Step:1℃	25℃
14	Heat energy-saving Temp. Range:(5~45℃) Step：1℃	15℃
15	Valve Control Z-Band (Z-Band 1): Range:(0.5~4)℃ Step：0.5℃	1℃
16	Cooling/Heating Changeover Z-Band (Z-Band 2): Range:(1~4)℃ Step：0.5℃	1℃
17	Energy-saving fan speed setting: 0-Low; 1-Mid; 2-High; 3-Auto	3

X. WIRING

No communication:



Communication:



XI. COMMUNICATING(OPTION)

■ When the thermostat is integrated into building.automation system, you can make configuration refer

■ Communication format:

Baud rate: 9600 bps

Stop bit : 1

Check bit : NO

transfer method : Modbus RTU

Support instruction : Read—0x03 、write—0x06

Addr Reg-isters	Configuration parameters	Significance and adjustment	Prop-erties
1	Room Temp	Room Temperature	R
2	Read only bit	**Low byte :** Bit1-Remote icon ; Bit2-Cool valve ; Bit3-Heat valve; Bit5-Auxiliary heating; Bit6-DI input **High byte :** 0x00	R
3	Set Temp	Set temperature valve 5℃~45℃	R/W
4	Fan Status	1-Low; 2-Mid; 3-High; 4-Auto Low 5-Auto Mid 6-Auto High 7-Auto Stop	R/W
5	Power-on status	0-Off states 1-On states 2-State before power off	R/W
6	System Mode	1-Cool Mode 2-Heat Mode; 3-Ventilation 4-Auto cool (Four pipe) 5-Auto heat (Four pipe)	R/W
7	Inner parameter bit	Low byte : bit0- Fan Stop (Item6) bit1-sleep mode bit4-heating mode (Item5) bit5-Two/Four pipe(Item7) bit6-Power on status(Item8) bit7- Low temp freeze-proofing (Item9) High byte : bit1-sensor (Item10)	R/W
8	OFFSET	Low byte : 0~50 (+0.0℃~5.0℃) 255 ~206 (-0.1℃~-5.0℃) High byte : 0x00	R/W
9	Set the upper/lower temp limit	**Low byte :** set temp low limit **High byte :** set temp upper limit	R/W
10	Keypad Lockout	1- All buttons available 2-Only Mode button locked out 3-Fan & Mode buttons locked out 4- All buttons locked out	R/W
11	Cool energy-saving Temp.	Set temperature valve 5℃~45℃	R/W
12	Heat energy-saving Temp.	Set temperature valve 5℃~45℃	R/W