

WS8 SERIES WALL MODULE

For use with fan coil units

WS8 series wall module is designed based on the 86-mm wall-mounted installation box for indoor temperature control. It has a large LCD display showing real-time room temperature or set temperature. With the temperature set, it will provide an ON/OFF control signal to the fan coil valve for temperature regulation.

WS8 Series wall module is suitable for fan coil units which regulate the room temperature by fan speed and valve control; while fan speeds control can be selected to automatic or manual.



PRODUCT CHARACTERISTICS

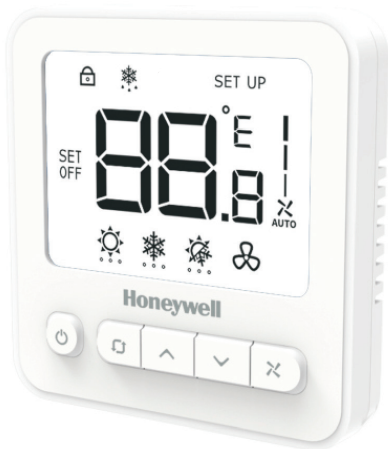
- Extra-large LCD display and operating interface
- Temperature display optional (room temperature or set temperature)
- Manual or automatic fan speed selection
- Anti-freeze protection
- Operating buttons lock/unlock
- Temperature range setting
- Standard 86-mm wall-mounted bottom box installation
- ON/OFF valve control

TECHNICAL SPECIFICATION

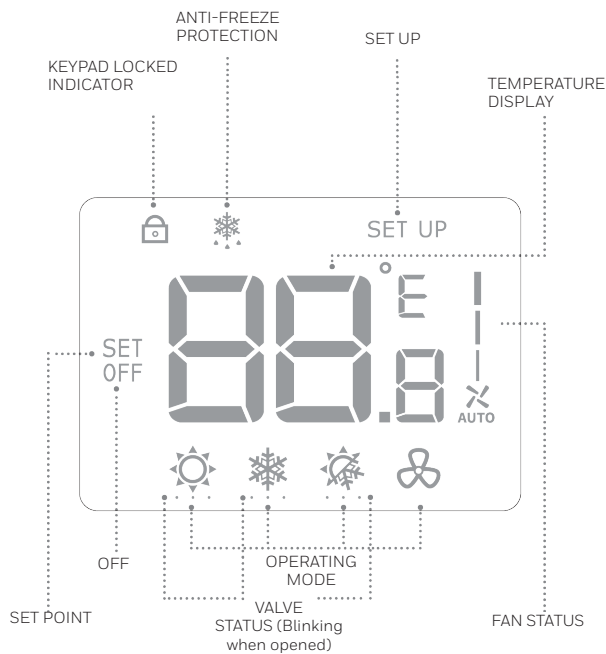
Product model	WS8 Series
Operating voltage	100VAC~240VAC 50/60HZ
Control accuracy	±1° C
Control signal	ON/OFF
Load capacity	Fan: resistive load 3A; inductive load:1A Valve: resistive load 2A; inductive load: 0.6A
Protection rating	IP20
Temperature setting range	10-30 ° C
Temperature display range	-10~50 ° C
Operating temperature	0~49 ° C
Transportation temperature	-30~60 ° C
Relative humidity	5-90% RH, non-condensing

PRODUCT DETAILS

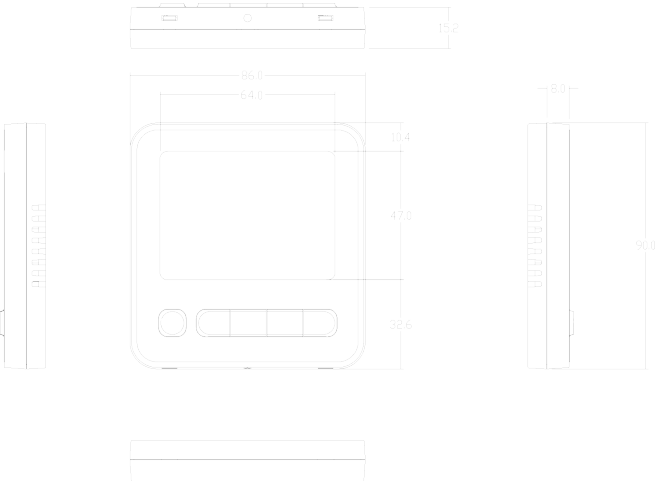
Outlook design



LCD Display



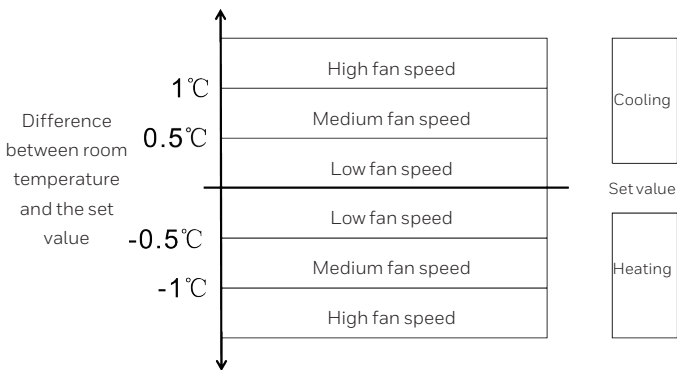
DIMENSIONS (MM)



FUNCTIONS

Valve control

The wall module reads the indoor temperature through a built-in temperature sensor and commands the valve to be opened or closed to achieve the set temperature. There are three fan speeds, which can be set manually or automatically. In the manual mode, the fan speed is adjusted by FH, FM, and FL outputs. In the automatic mode, the fan speed will depend on the difference between the room temperature and set temperature. When the room temperature reaches the set value, the valve will be closed, and the fan will be turned off.



Temperature display

The temperature displayed on the screen can be the room temperature or the set temperature, which can be changed in the installation settings.

Backlight

The backlight can be activated by pressing any button and will last for 8 seconds after the last button is pressed. In the setting mode, the backlight will remain on for 60 seconds after pressing the last button.

Keypad lockout

It is possible to lock or unlock the keypad while the device is not in the setting mode. In the lock mode, the keypad will be inactive when any button is pressed.

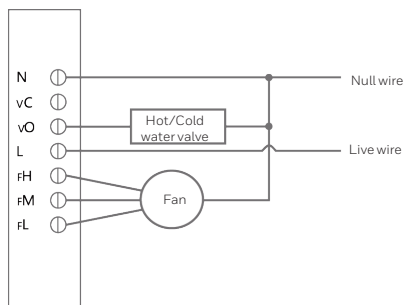
WIRING DIAGRAM

Part No.: WS8B2WB/U

Two-pipe Application

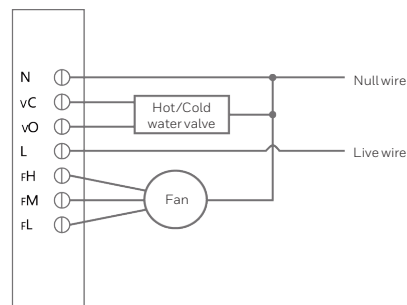
Wiring Diagram 1

Two-wire Electric Valve Wiring Diagram



Wiring Diagram 2

Three-wire Electric Valve Wiring Diagram

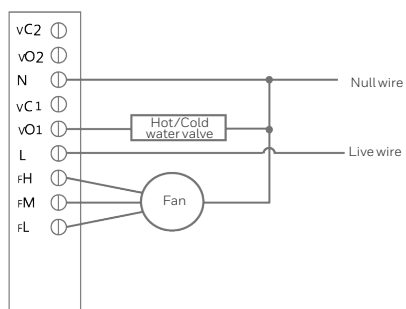


Part No.: WS8B4WB/U

Two-pipe Application

Wiring Diagram 1

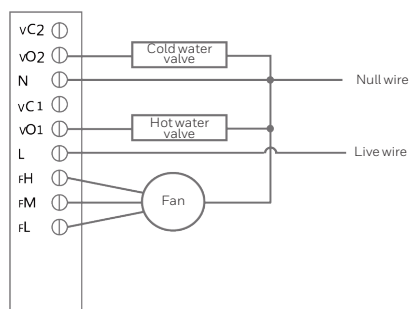
Two-wire Electric Valve Wiring Diagram



Four-pipe Application

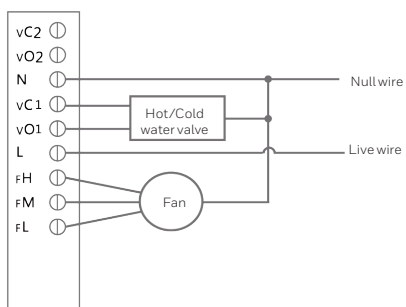
Wiring Diagram 1

Two-wire Electric Valve Wiring Diagram



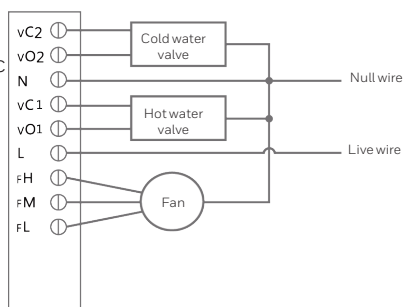
Wiring Diagram 2

Three-wire Electric Valve Wiring Diagram



Wiring Diagram 2

Three-wire Electric Valve Wiring Diagram



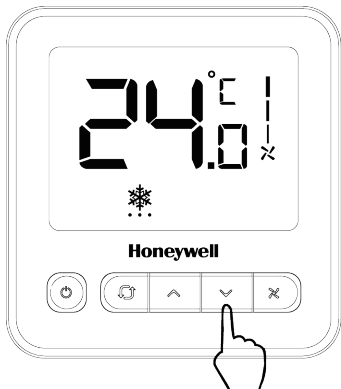
TERMINAL DEFINITIONS

Symbols	Description
vC2	Cooling valve closed (only for four-pipe system)
vO2	Cooling valve open (only for four-pipe system)
N	Power neutral wire
vC1	Heating/cooling valve closed
vO1	Heating/cooling valve open
L	Power live wire
FH	High fan speed
FM	Medium fan speed
FL	Low fan speed

OPERATING MODE

Comfort mode

In the comfort mode, press the up or down button to set the temperature. The comfort mode is included in cooling, heating or automatic application.



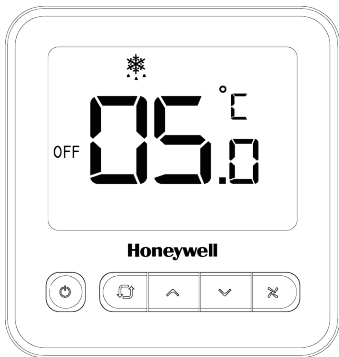
Ventilation Mode

Press the mode button to enter the ventilation mode. In this mode, the fan will operate on the manually set fan speed, and the valve will stop working.



Anti-freeze protection mode

The anti-freeze protection mode is optional and is default in the heating mode only. In anti-freeze protection mode, when the room temperature falls below 6°C, the heating mode will be activated until it reaches 8°C.



TROUBLESHOOTING

Symbols	Description
Fails to activate	<ul style="list-style-type: none">• Press “☀” to set the operating mode to “☀” (heating mode)• Check whether the set temperature is higher than the current indoor temperature• Check whether the valve status indicator is blinking• Check whether the heating system has any response in 5 minutes
Fails to activate	<ul style="list-style-type: none">• Press “❄” to set the operating mode to “❄” (cooling mode)• Check whether the set temperature is lower than the current indoor temperature• Check whether the valve status indicator is blinking• Check whether the cooling system has any response in 5 minutes
Fails to work	<ul style="list-style-type: none">• Check whether the keys are locked• Check whether the device is in the OFF mode
Fails to work	<ul style="list-style-type: none">• Check whether the keys are locked• Check whether the device is in the “🌀” mode• Check whether the device is in the OFF mode

ORDERING PART NUMBERS

Model	Operating Voltage	Applications	Backlight	Ventilation mode
WS8B2WB/U	100-240VAC	2-pipe	Yes, white backlight	Yes
WS8B4WB/U	100-240VAC	2/4-pipe	Yes, white backlight	Yes

For more information

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