WS3 SERIES WALL MODULE
FOR USE WITH FAN COIL UNITS

- Extra large LCD and operating interface
- Temperature display selection (room temperature or set tem perature)
- Manual or automatic fan speed selection
- Anti-freeze protection
- Operating buttons lock / unlock
- Temperature range setting
- Standard 86 wall-mount installation box
- Modulating valve control
- Support remote temperature senso
- Support energy saving activation by dry contact (key card)

SCOPE OF APPLICATION

The WS3 Series wall modules are designed for application with 3- speed fan and modulating valve for indoor temperature control in fan coil system.
With temperature set, WS3 Series wall modules will provide modulating signal for valve control to regulate chilled or heated water flow to the occupant desired comfort. The WS3 Series wall modules have selectable automatic or manual control of fan speeds.
The WS3 Series wall module has a large LCD display providing real time display of room temperature or set temperature.
The WS3 Series wall modules support energy saving features through key card (dry contact) input

Technical Specification	
Operating Voltages	100VAC~240VAC 50/60HZ 24VAC50 /60HZ
Control Signal	Modulating
Load Capacity	Fan:Resistive Load 3A & Inductice Load 1A Valve: Resistive Load 2A
Protection rating	IP20
Temperature Setting Range	0~37°C
Emperature Display Range	10~50°C
Operating Temperature	0 ~ 49°C
Relative Humidity	5~ 90% RH NONCONDENSATING

Honeywell

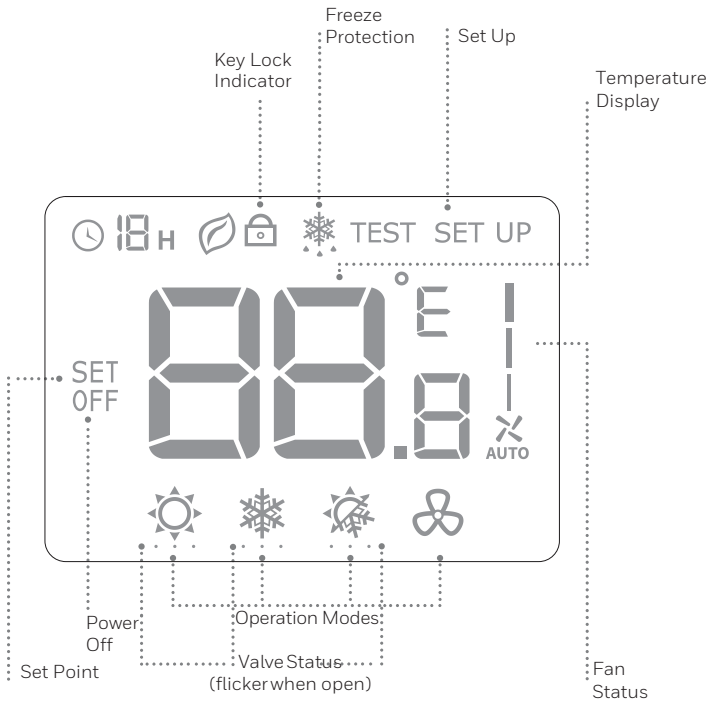
Ordering Part Numbers

Model Number	Backlight	Application	Ventilation Mode	Operating Voltages
WS3B2WB/U	White	2-pipe	Yes	100-240VAC
WS3B4WB/U	White	2/4-pipe	Yes	100-240VAC
WS3E2WB/U	White	2-pipe	Yes	24VAC
WS3E4WB/U	White	2/4-pipe	Yes	24VAC

Product Design

Outlook Design

LCD Display



Function

Valve And Fan Control
The wall module obtains room temperature through the built in sensor or remote sensor and regulate to the set temperature by controlling the valve opening.
There are three fan speeds which can be set manually and automatically. Under manual mode, fan speed is adjusted by FH, FM and FL outputs. Under automatic mode, the fan speed will depend on the difference between the room temperature and set temperature.
The fan will shut down when the valve is not operating

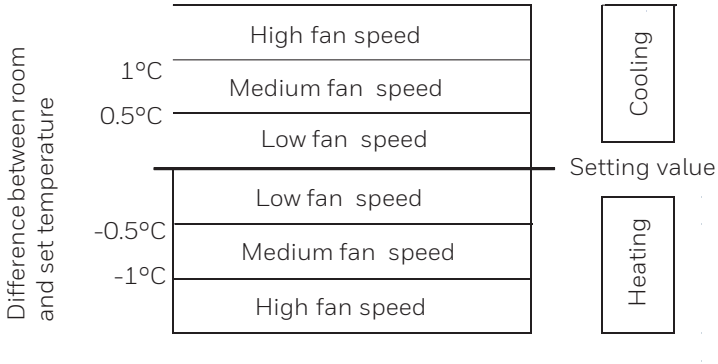


Figure 1. Automatic Fan Speed Control Algorithm

Temperature Display

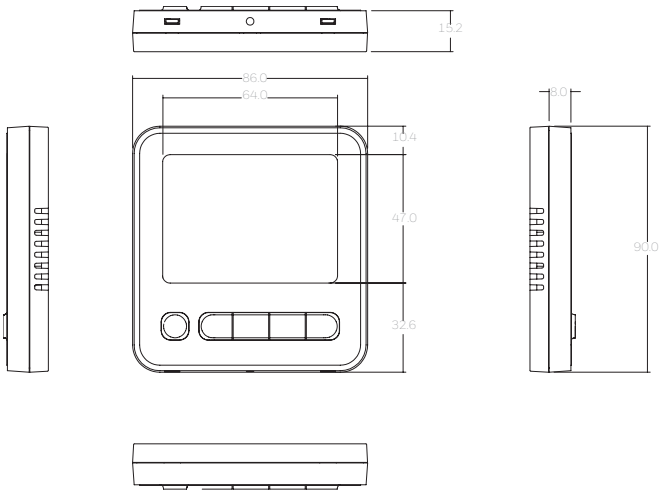
Either room temperature or set temperature can be displayed. This is to be set up during the installation and set up process of the wall module.

Backlight
The Backlight will be activated when any button is pressed and will last for 8 seconds upon the last button pressed. In setting mode, the backlight will remain turn on for 60 seconds upon the last button pressed.

Keypad Lockout
It is possible to lock or unlock the keypad while the device is not in setting mode. When in lock mode, the keypad will be inactive when pressing any button.

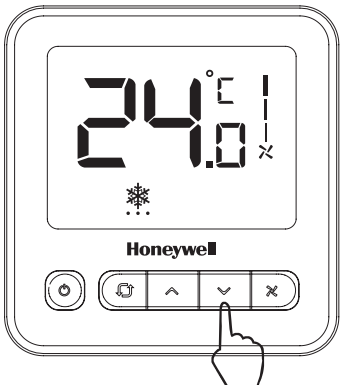
Energy Saving mode
ergy-Saving mode can be activated by pressing the power on button for 3 seconds or by the dry contact which can be connected with normally closed or normally open device.
In the Energy-Saving mode activated by the dry contact, all buttons will be locked (except the Set Up buttons).
In the Energy-Saving mode activated by the power key, pressing any button will exit the mode.
In the Energy-Saving mode, the set temperature of the room will be automatically adjus ted to the specified temperature under the mode, which means the default temperature in heating mode is 18°C and adjustable from 10°C to 21°C, while the default temperature in cooling mode is 26°C and adjustable from 22°C to 30°C.

Product Size(mm)



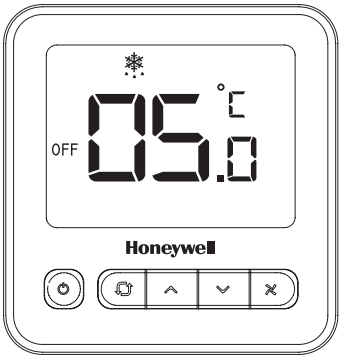
Operating Mode

Comfort Mode
In the comfort mode, press the Up or Down button to set the temperature. The comfort mode is included in cooling, heating and automatic



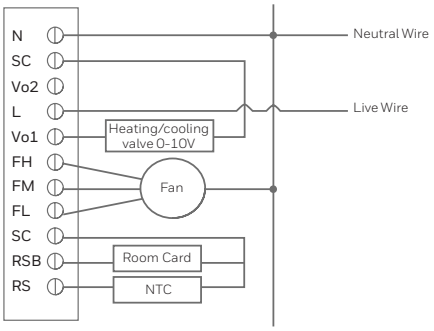
Ventilation Mode
Press the mode key to enter the ventilation mode. In ventilation mode, the fan speed will run as manually set with the valve st

Freeze Protection Mode
The anti-freeze mode is an option under the heating mode. If selected, when the room temperature falls below 6°C, the wall module (in its off status) will be activated in heating mode automatically until the room temperature reaches 8°C.



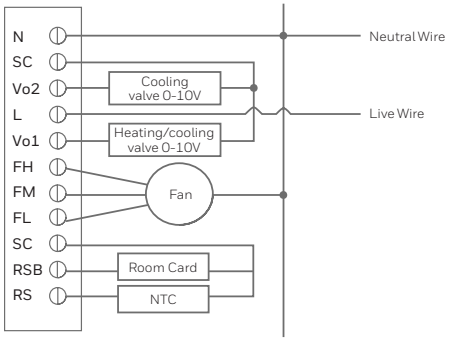
PRODUCT WIRING DIAGRAM

Part number: WS3B2WB/U
Two-Pipe Application
220Vac, motorized valve wiring diagram



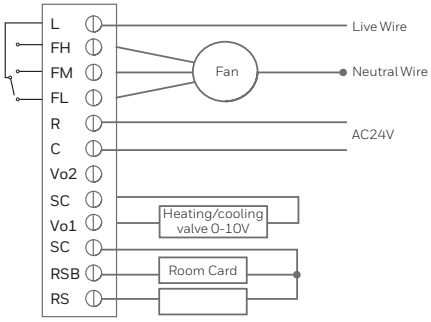
Part number: WS3B4WB/U

Four-Pipe Application
220Vac, motorized valve wiring diagram



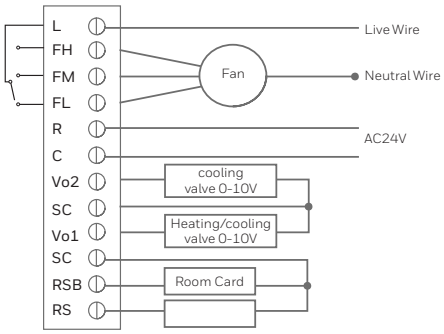
Part number: WS3E2WB/U

Two-Pipe Application
24Vac, motorized valve wiring diagram



Part number: WS3E4WB/U

Two-Pipe Application
24Vac, motorized valve wiring diagram



Terminal Designations

SYMBOL	Description
vC2	2Cooling valve is closed (four-pipe only)
vO2	Cooling valve is opened (four-pipe only)
N	Power neutral wire
vC1	Heating/cooling valve is closed
vO1	Heating/cooling valve is opened
FH	High fan speed
FM	Medium fan speed
L	Power live wire
FL	Low fan speed

Troubleshooting

Symtoms	Solution
Fails To Activate	• Pressing to set the operation mode to (heating mode). • Check whether the setting temperature is igher than the room temperature. • Check whether the valve status ind icator is flickering. • Wait for 5 minutes, check whether the heating system starts.
Fails To Activate	• Pressing to set the operating mode to (cooling mode). • C heck whether the setting temperature is lower than the room temperature. Check • whether the valve status ind icator is flickering. • Wait for 5 minutes, check whether the cooling system starts.
Not Web	• Check whether the buttons are locked. • Check whether the module is in the OFF state.
NOt Work	• Check whether the buttons are locked. • Check whether is in mode • Check whether is in the OFF state.

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T6865 SERIES
2-PIPE FAN COIL CONTROL

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