WL8 Series

Digital Thermostat

WL8 series thermostats (wall module) are based on 86 box installation with LCD display. WL8 series thermostats can realize the real-time display of the indoor temperature and target temperature and control the FCU valve, so as to adjust the indoor temperature.



Key Features

- Large LCD display
- The display of Indoor temperature or target temperature is optional
- Manual or automatic fan speed is optional
- The Celsius temperatures (°C) and Fahrenheit (°F) temperatures are available
- Keypad lock can lock / unlock some or all buttons
- The temperature setting range can be limited
- Freeze Protection
- Timing shutdown
- Energy saving mode (remote sensor / key card terminal)
- Support 86 box installation
- The LCD display backlight is adjustable

Technical Parameter

Technical Parameter			
Input Voltage	220/230Vac, 50/60Hz	Temperature setting range	10 ~ 32°C
Control Accuracy	±1°C at 21°C	Temperature display range	0 ~ 37°C
Control Method	On / off	Operating environmental temperature	0~ +49°C
Load Lapacity	Fan: Resistive load 2A Inductive load 0.6A Valve: Resistive load 2A Inductive load 0.6A	Transportation environment temperature	-30 ~ +60°C
Protection Grade	IP20	Relative humidity	5~90% RH Non-condensing environment

Product SKU

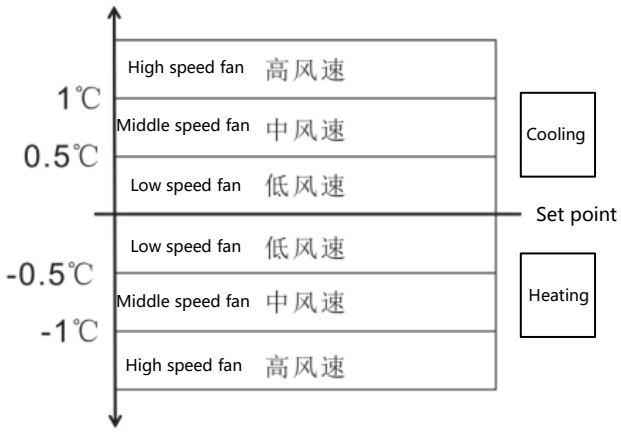
SKU	Voltage	2 Pipe / 4 Pipe	Backlight	Support adjusting the backlight	Support Energy saving mode	External temperature sensor
WL8B2WB/B	220Vac 50Hz	2	Yes Moonlight white	Yes	No	No
WL8B4WB/B	220Vac 50Hz	2/4	Yes Moonlight white	Yes	No	No
WL8B2WB-R/B	220Vac 50Hz	2	Yes Moonlight white	Yes	Yes	Yes
WL8B4WB-R/B	220Vac 50Hz	2/4	Yes Moonlight white	Yes	Yes	Yes

* External sensor: NTC20K (SKU: 50046805-001)

Function

Valve Control

The wall thermostat follows the indoor temperature signals through the built-in temperature sensor (or external temperature sensor) and maintains the target temperature by controlling the valve. The fan operating modes support manual or auto mode of 3-speed fan. In manual mode, adjust the fan speed by choosing the FH, FM, and FL output. In the auto mode, the fan speed depends on the difference between the indoor temperature and the set point.



Difference between indoor temperature and set point

Backlight

Press any button to activate the backlight. After the last button press, the backlight displays for 8 seconds. In the installation setting mode, after the last button press, the backlight displays for 30 seconds. Through the parameter mode, the backlight brightness can be adjusted. The backlight support a 10-level adjustment.

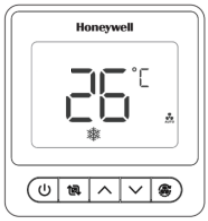
Keypad Lock

Keypad lock can be set in the installation settings, and the default is to allow all buttons available. In the locked position, all buttons are locked at the same time.

Operation Mode

Comfort Mode

In comfort mode, press the arrow buttons to set the temperature. Control modes include cooling, heating, and auto.



Energy Saving Mode

Referring to the installation instructions, after manually or automatically entering the energy saving mode, the thermostat will automatically adjust the target temperature and the fan speed according to the configuration parameters.



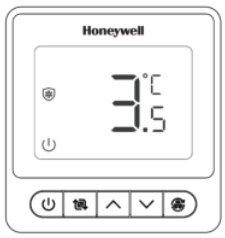
Ventilation Mode

Press the mode button to enter the ventilation mode. In ventilation mode, the fan follows the manually set fan speed, where the valve does not work.

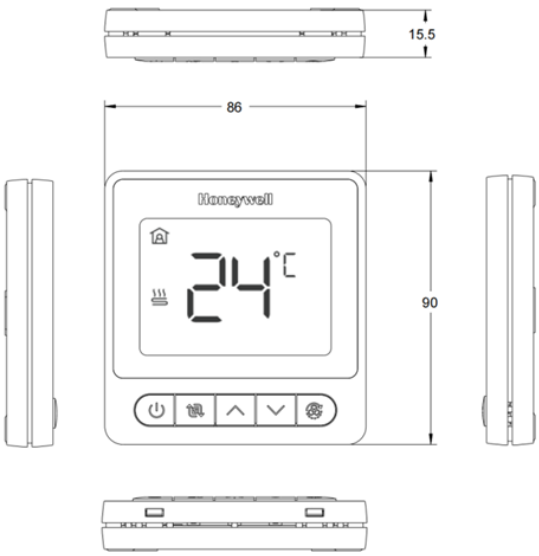


Freeze Protection Mode

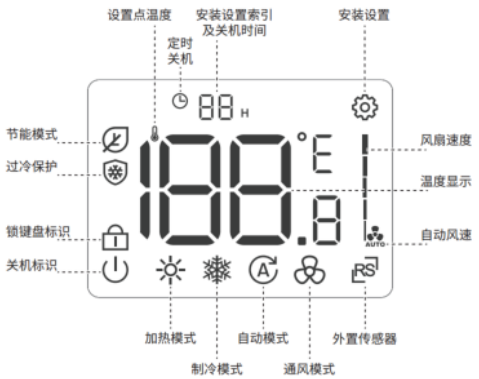
You can enable the Freeze Protection in the installation settings. In the shutdown state, when the temperature is lower than 6℃, the thermostat starts heating until the temperature reaches 8℃.



Appearance and Size of Thermostat (mm)



LCD Display



Terminal Description

Symbol	Description	Symbol	Description
FL	Low speed fan	L	Live wire
FM	Middle speed fan	RSB	Energy saving terminal
FH	High speed fan	COM	Common terminal (External sensor and energy saving terminal)
N	Neutral wire	RS	External sensor
vO /v1	Heating / cooling valve opens		
vC /v2	vC/v2: Heating / cooling valve closes v2: cooling valve opens (only for 4-pipe)		

* External sensor: NTC20K (SKU: 50046805-001)

Product Wiring Diagram

Please refer to the installation instructions.

Naming Rule

