Smart Fan Coil Thermostat

Featuring LoRaWAN®

WT303 & WT304



WT303&WT304 is an advanced room thermostat specifically developed to oversee fan and valve operations in air conditioner applications where 2-pipe or 4-pipe fan coil unit (FCU) with 3-speed fan or ECM fan is adopted. It allows manual control by buttons, and automatic control through predefined logic, scheduled programming or remote management system. This ensures optimal comfort and energy efficiency in the controlled environment.

With 2.7'' e-ink screen and embedded temperature and humidity sensor, the thermostat continuously displays the room status while monitoring the ambient temperature and humidity. It is compatible with standard LoRaWAN® gateway and Milesight Development Platform, enabling real-time monitoring of environmental status for effective remote management.

◆ Features

- Applicable for 2-pipe and 4-pipe FCUs with 3-Speed fans or ECM fans
- Compatible with 2-wire On/Off relay, 3-wire On/Off relay or 0-10V valve control
- Supports intuitive 2.7-inch display, allowing for showing temperature/humidity and status of the room clearly
- Equipped with an external NTC sensor signal input and a dry contact input for keycard/magnet switches
- Highly adapt to different scenarios with 60mm/86mm/118mm/120mm boxes
- Adjust the room temperature manually or automatically
- Optional data sources for environmental detection and accurate control: built-in temperature and humidity sensors, external NTC sensor, Milesight sensors, external sensor data from network servers

- Supports adding 8 plans and allow up to 16 schedules for each plan, ensuring various control needs and energy savings
- Supports open-window detection and freeze protection
- Supports the child lock function for safety reasons
- Function well with standard LoRaWAN® gateways and network servers
- Compatible with BACnet system via Milesight LoRaWAN® gateways
- Compatible with Milesight Development Platform
- Supports Milesight D2D protocol to enable ultra-low latency control without gateway
- Supports multicast for control in bulk
- Support Firmware Update Over the Air (FUOTA) feature

◆ Specifications

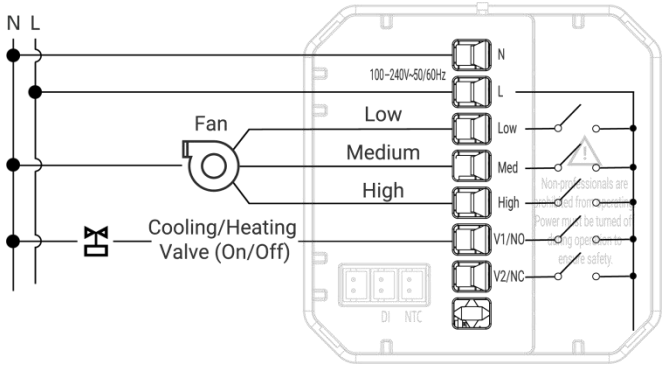
Model	WT303	WT304
Thermostat Feature		
Compatible Fan Coil	2-pipe and 4-pipe Fan Coil Units (FCUs) with 3-speed fans or EC (0-10V) fans For more see Compatibility Checker.	
Compatible Valve	2-wire or 3-wire On/Off Motorized Valves	0-10V Proportional Integral Valves, 2-wire or 3-wire On/Off Motorized Valves
Valve & Fan Relay Amps*	Resistance: 4A, Inductive: 3A	
Temperature Control Range	5°C ~ 35°C	
Temperature Control Mode	Heat, Cool, Ventilation	
Fan Mode	Low, Medium, High, Auto	
Others		
Inputs	1 × 10k ± 1% 3950 NTC Input, 1 × DI (Dry Contact) for keycard switches, magnet switches, etc. (only for physical switches or buttons)	
Advanced Feature	Local Control Schedule, Freeze Protection, Open Window Detection, Fan Delay, Temp. Control and Dehumidify	
Sensor		
Temperature		
Operating Principle	Digital CMOSens® technology (MEMS)	
Range	-20°C ~ 60°C	
Accuracy	± 0.5°C (0°C ~ 60°C), ± 1°C (-20°C ~ 0°C)	

Resolution	0.1°C
Humidity	
Operating Principle	Digital CMOSens® technology (MEMS)
Range	0% - 100% RH
Accuracy	Typical ± 2% RH, Max. ± 5% RH
Resolution	0.1% RH
Wireless Transmission	
Protocol	LoRaWAN®, Milesight D2D
Antenna	Internal Antennas
Frequency	CN470/EU868/RU864/1N865/AU915/US915/KR920/A5923-1&2&3&4
Tx Power	16dBm (868 MHz) / 19dBm (470 MHz) / 22dBm (915 MHz)
Sensitivity	-137dBm
Mode	OTAA/ABP Class C
Others	
Display	2.7-inch Black&White E-ink Screen
Button	5 External Buttons for FCU System On/Off, Temperature Up/Down, Temperature Control Mode Switch, Fan Mode Switch, Reboot and Reset
LED Indicator	1 x Reset/Reboot Indicator
USB	1 x Type-C Port for Console
Software	
Configuration	NFC via mobile App or Downlink
Advanced Feature	Threshold Alarm, Child Lock, Multicast, Milesight D2D Controller, Milesight D2D Agent, External Sensor Mode, Milesight D2D Sensor Data Receiving, FUOTA
Physical Characteristics	
Power Supply	100 ~ 240 VAC, 50 ~ 60Hz
Power Consumption	< 2W (Without loads)
Operating Temperature	-20°C ~ 60°C (E-ink Screen: 0°C ~ 40°C)
Relative Humidity	0 ~ 95% (Non-condensing)
Ingress Protection	IP20
Color & Material	White, PC + ABS (UL94 V0)
Dimension	86 × 86 × 42 mm
Wire Connection	AWG 14-26
Installation	86mm Square or European 60mm Round Box Mounting 118 or 120 Wall Box Mounting via (optional) Wall Plate Accessories

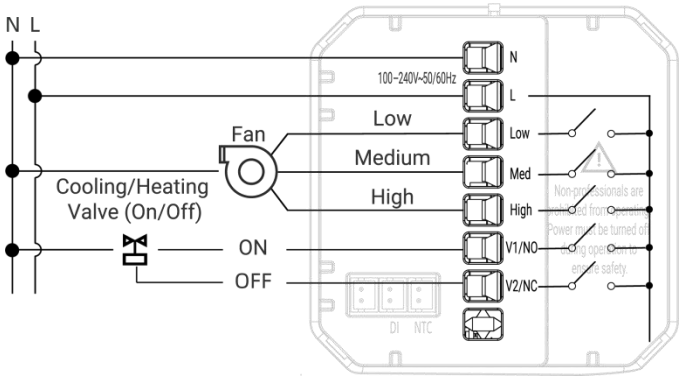
*Capacitive loads not support.

◆ Wiring Diagrams

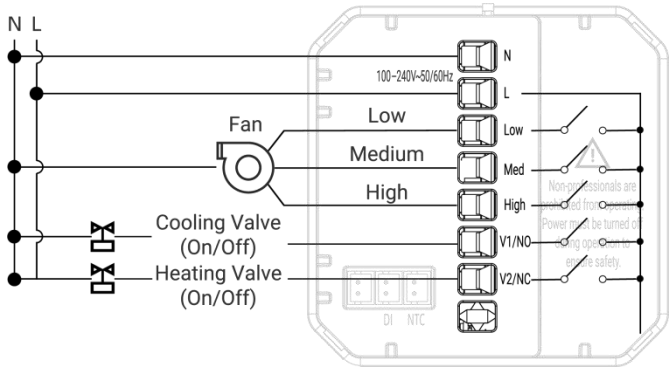
WT303



2-pipe, 2-Wire On/Off Valve, 3 Speed Fan

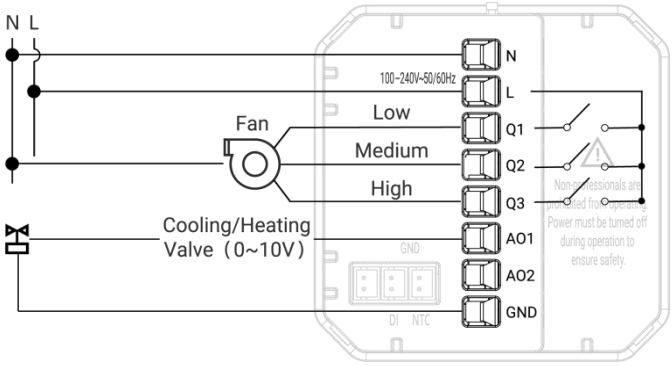


2-pipe, 3-Wire On/Off Valve, 3 Speed Fan

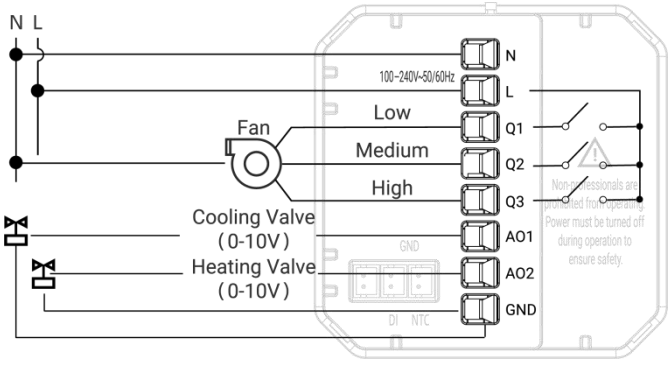


4-pipe, 2-Wire On/Off Valve, 3 Speed Fan

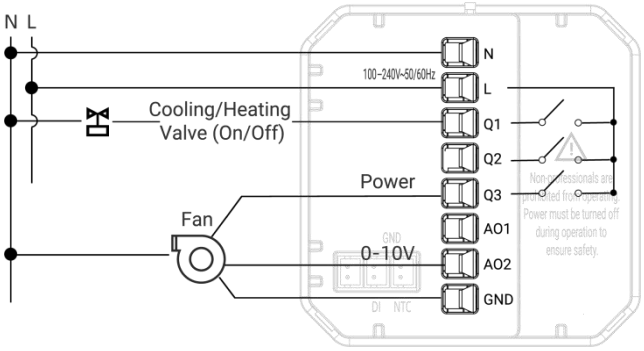
WT304



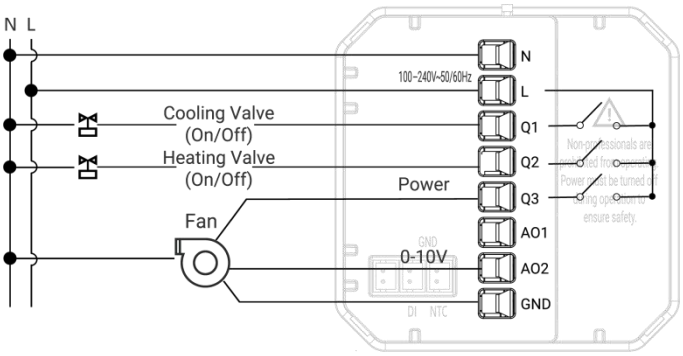
2-pipe, 0-10V Valve, 3 Speed Fan



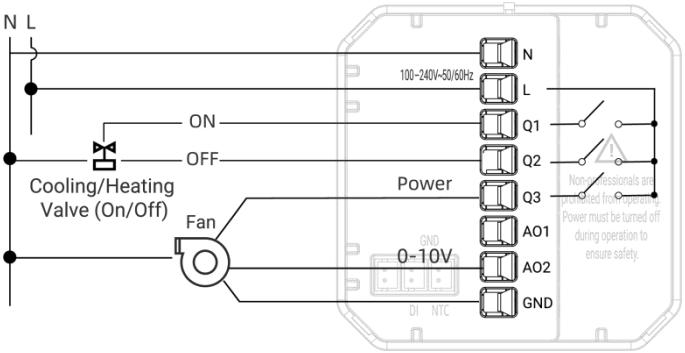
4-pipe, 0-10V Valve, 3 Speed Fan



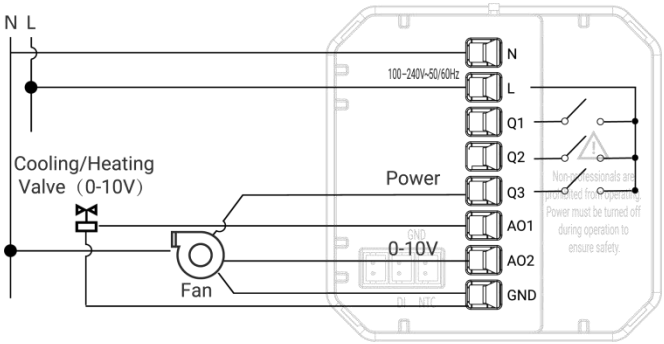
3-pipe, 2-Wire On/Off Valve, EC Fan



4-pipe, 2-Wire On/Off Valve, EC Fan

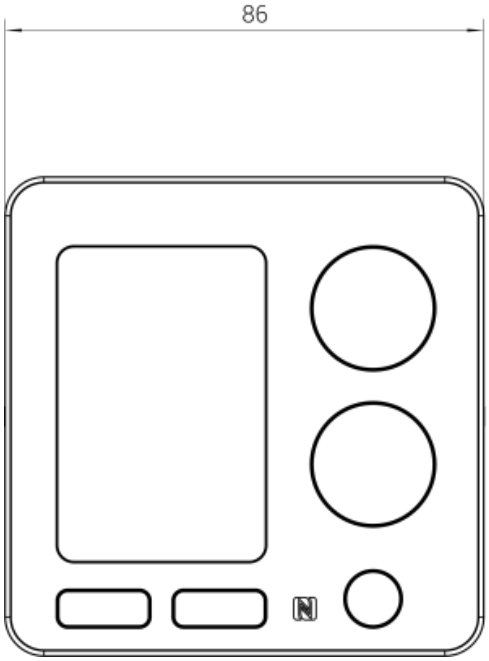


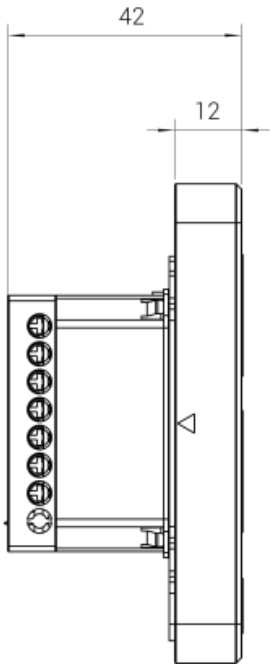
2-pipe, 3-Wire On/Off Valve, EC Fan

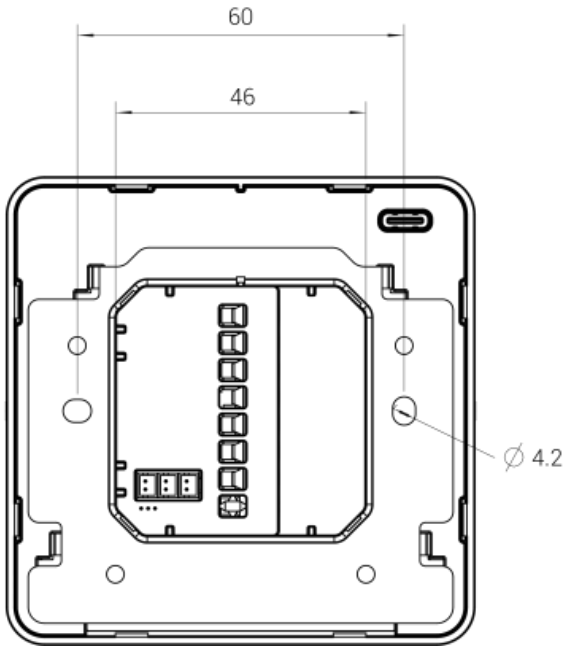


2-pipe, 0-10V Valve, EC Fan

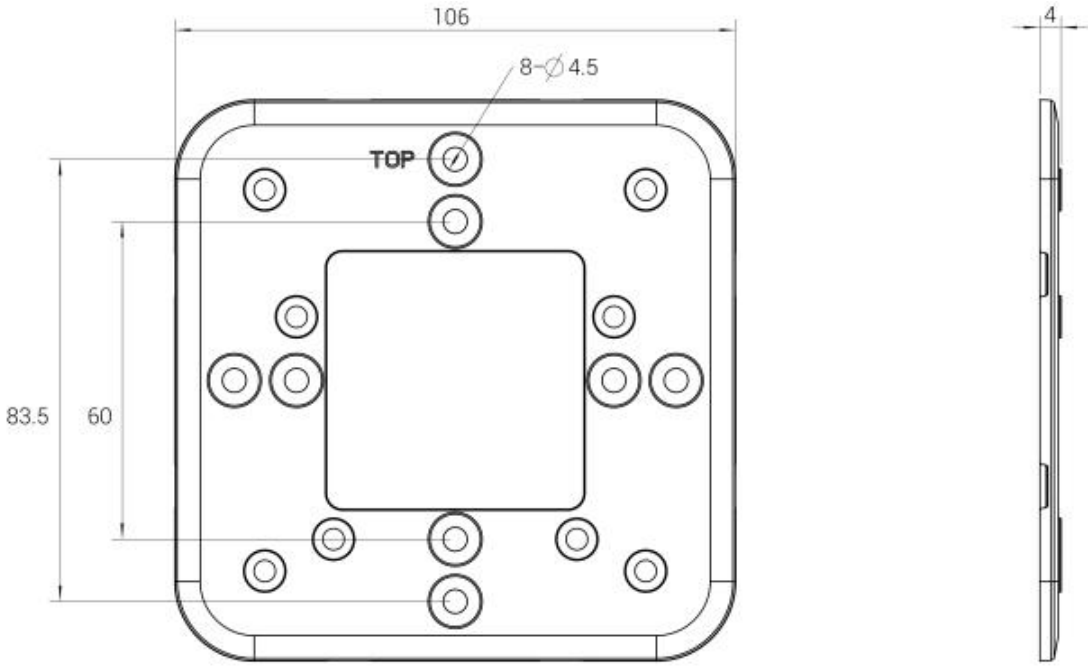
◆ Dimensions (mm)

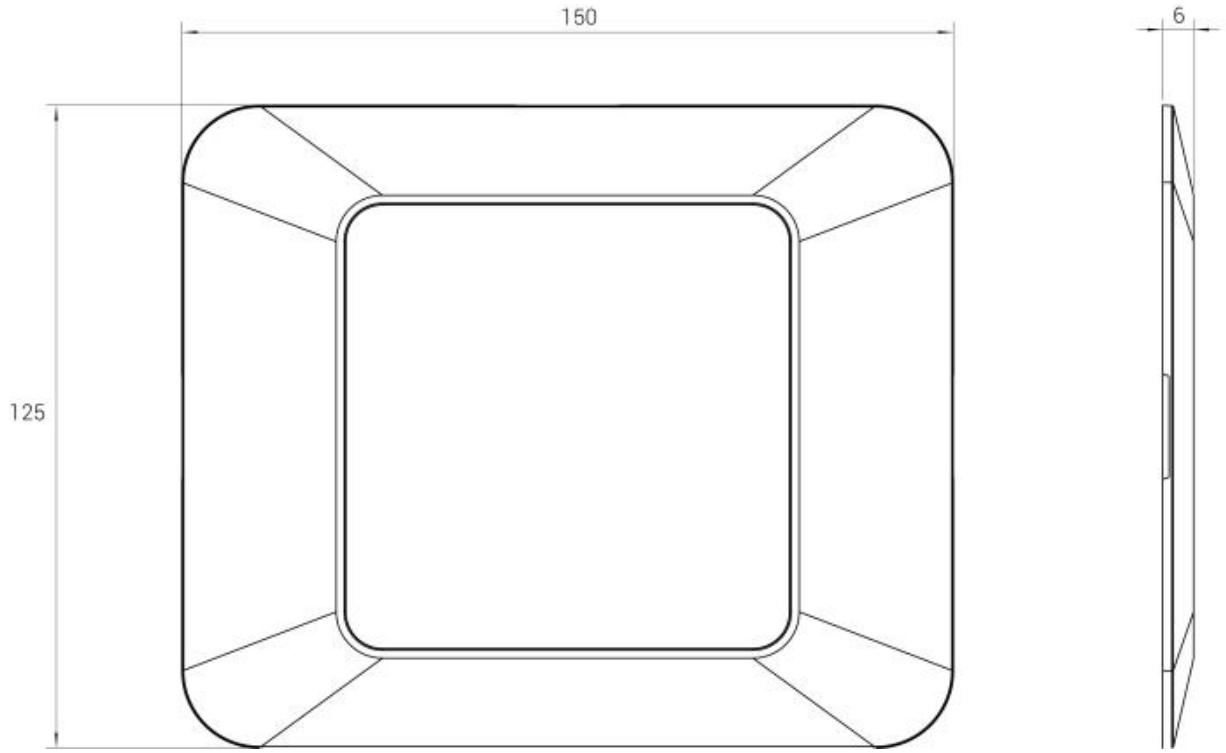






Wall Plate (Optional)




150
6
125