Smart Thermostat

Featuring LoRaWAN®

WT201 & WT211

WT201/WT211 is a LoRaWAN® thermostat used as a HVAC controller supporting a wide range of different heating and cooling systems, including heat pumps, AC, boilers, furnaces, AHU, and PTAC devices. The smart thermostat provides multiple modes including heat/cool, emergent heat, auto, and fan mode, enabling precise temperature adjustments in buildings. It allows for automatic control through scheduled programming and remote management via cloud system. Real-time monitoring ensures timely alerts for sudden temperature changes, prioritizing people's safety and protecting assets. Additionally, it has the capability to store up to 1000 pieces of data, providing ample data security.

With 4.2" LCD screen and embedded temperature and humidity sensor, the thermostat continuously displays the room status while monitoring the ambient temperature and humidity. It also accommodates different time zones and summer/winter time, catering to users in various regions. Moreover, the thermostat seamlessly integrates with hotel room card systems, allowing for convenient remote management. Compliant with Milesight LoRaWAN® gateway and Milesight Development Platform solution, users can control the room temperature as well as triggering other sensors or appliances easily via webpage remotely and D2D protocol.

⚠ **The thermostat is designed for 24VAC systems only. Do not connect it to high voltage, high current or millivolt systems!**

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Features

- Support most 24VAC HVAC system, including furnaces and air conditioners (2H/2C), heat pumps (4H/2C or 3H/2C + 1 stage AUX heat), boilers, and PTAC
- Support intuitive 4.2-inch display, allowing for showing temperature/humidity and status of the room clearly
- Support the child lock function and anti-theft installation for safety reasons
- Support 4 temperature control modes and 3 fan modes for flexible temperature control
- Adjust the room temperature manually or automatically with 7 working modes and allow up to 16 schedules for each mode
- Enabling real-time monitoring ensures timely alerts for sudden temperature changes
- Built-in temperature and humidity sensor, enabling environmental detection and accurate control
- Store locally historical records and support retransmission to prevent data loss
- Support flexible adjustments based on time zones and summer/winter time catering to region differences
- Compatible with hotel room card systems for convenient remote management
- Equips with RTC to keep time correct for 72 hours even without power supply
- Equipped with NFC for one touch configuration
- 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

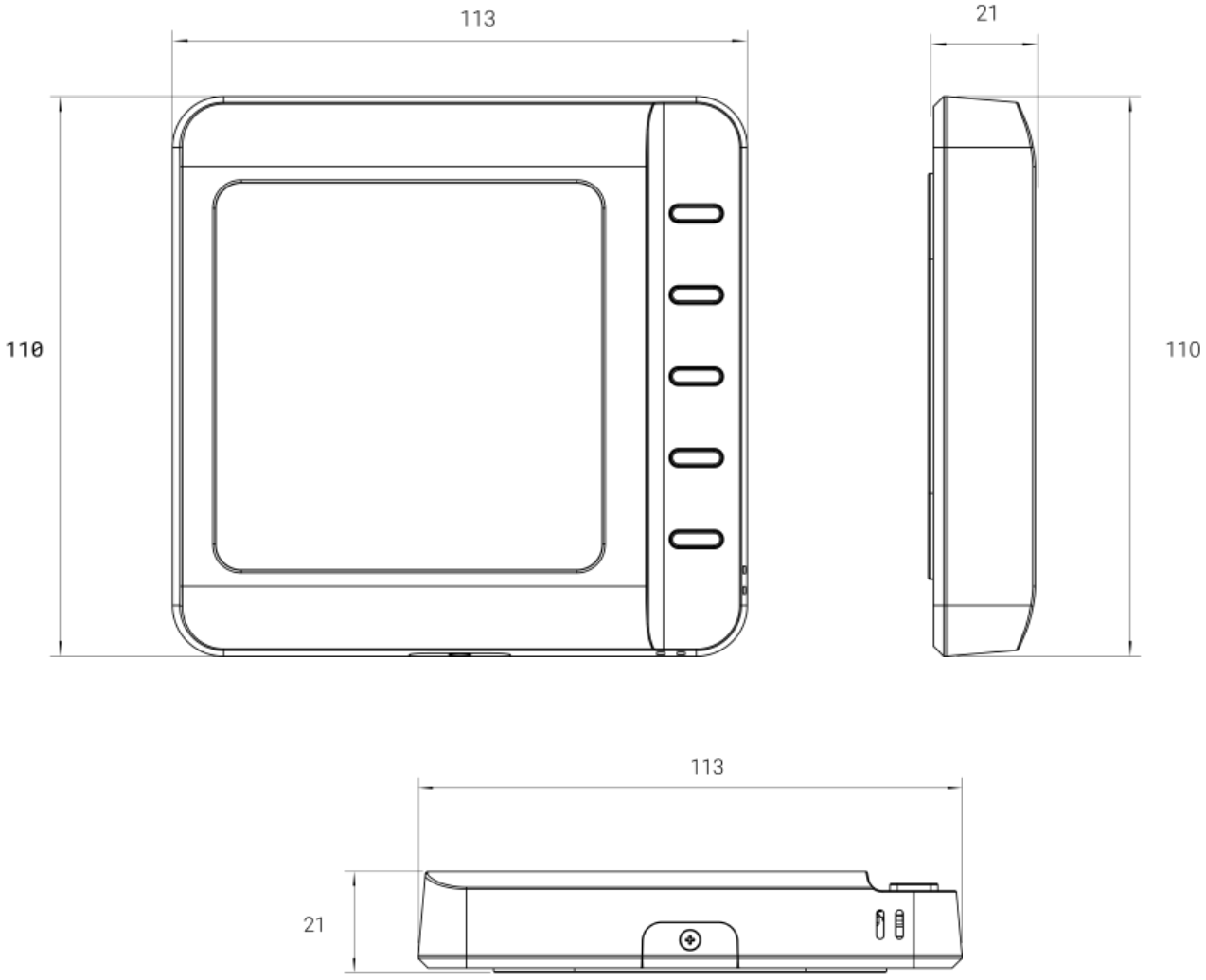
Specifications

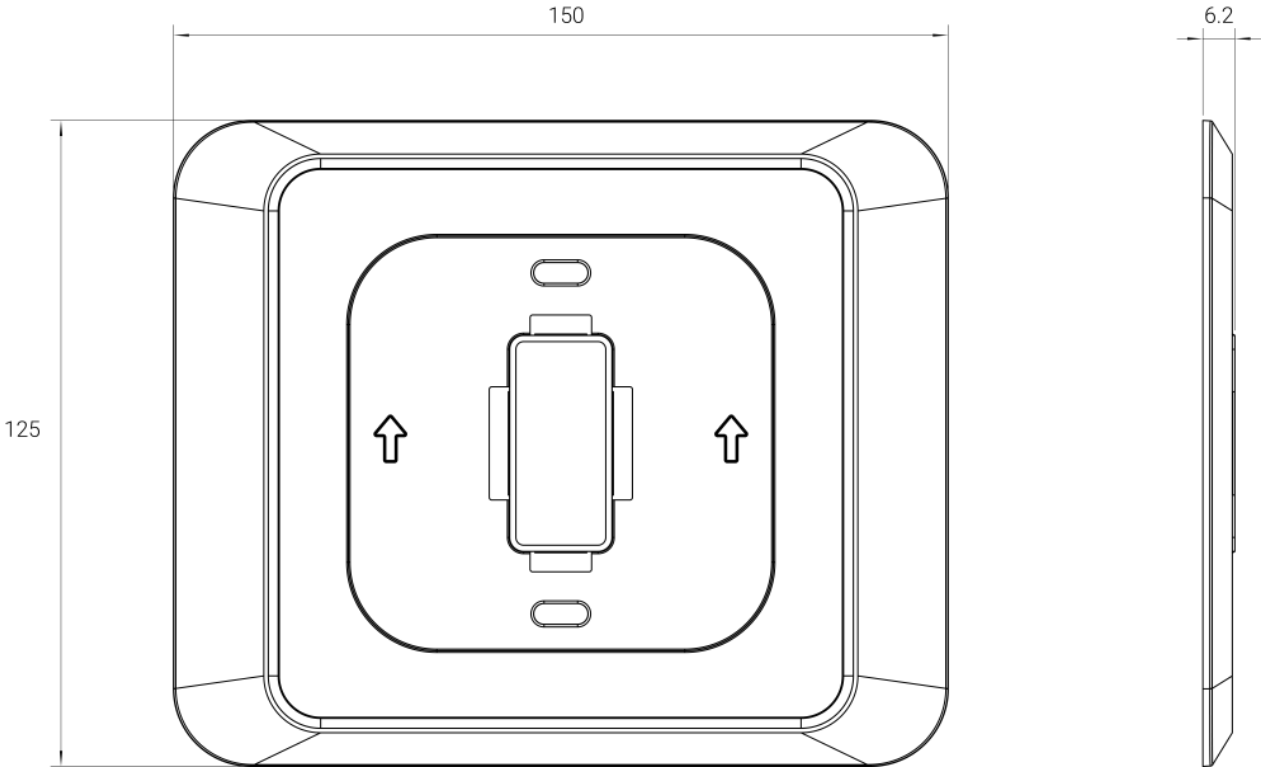
Wireless Transmission	
Technology	LoRaWAN®, Milesight D2D
Frequency	IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4
Tx Power	16dBm (868MHz)/22 dBm (915 MHz)
Sensitivity	-137dBm
Mode	OTAA/ABP Class C
Thermostat Feature	
Compatibility	Work with most 24VAC HVAC system, including Furnaces and Air Conditioners (2H/2C), Heat Pumps (4H/2C or 3H/2C + 1 stage AUX Heat), Boilers, and PTAC For more see Compatibility Checker.
Wire Terminals	RC, RH, C, W1, W2/AUX, E,Y1, Y2/GL,G/GH, O/B,PEK, DI, GND

Wire Relays	WT201: 24VAC (@Typ. 150mA, Max. 1A) WT211: 24VAC(@Typ. 1A, Max. Per channel 3A, Max. Total 5A)
Digital Input	1 × DI (Dry Contact) for keycard switches, magnet switches, etc. (only for physical switches or buttons)
Temperature Control Mode Options	Heat, EM (Emergency) Heat, Cool, Auto
Fan Mode Options	Auto, On, Circulate
Advanced Feature	Local Control Schedule, Freeze Protection, Fan Delay, Temp. Control and Dehumidify
Sensor	
Temperature	
Operating Principle	Digital CMOSens® technology (MEMS)
Range	-4°F ~ 140°F (-20°C ~ 60°C)
Accuracy	± 0.9°F (32°F ~ 140°F), ± 1.8°F (-4 ~ 32°F) Or ± 0.5°C (0°C ~ 60°C), ± 1°C (-20 ~ 0°C)
Resolution	Report: 0.1°C, Display: 0.5 °F (0.5°C)
Humidity	
Operating Principle	Digital CMOSens® technology (MEMS)
Range	0% - 100% RH
Accuracy	± 3% RH (40-85%RH), ± 5% RH (0-40%RH, 85-100%RH)
Resolution	Report: 0.5% RH, Display: 1%RH
Others	
Display	4.2-inch LCD Segment Code Screen with White Backlight
External Buttons	5 Buttons for System On/Off, Temperature Up/Down, Temperature Control Mode Switch, Fan Mode Switch, Reboot and Reset
USB	1 × Type-C (Internal) for Console
Software	
Configuration	NFC via mobile App or Downlink
Advanced Feature	Threshold Alarm, Child Lock, Data Storage (1,000 entries), Data Retransmission, Data Retrievability, External Sensor Mode, Milesight D2D Controller & Agent, Milesight D2D Data Receiving, Multicast, FUOTA
Physical Characteristics	
Power Supply	WT201: 24VAC (±15%)(@ Typ. 150mA, Max. 1A) WT211: 24VAC(±15%) (@Typ. 1A, Max. Per channel 3A, Max. Total 5A)
Power Consumption	< 1.2W

Operating Temperature	-4°F ~140°F (-20°C ~ 60°C)
Relative Humidity	0% to 95% (non-condensing)
Ingress Protection	IP30
Material & Color	PC + ABS (UL94 V0), White
Weight	172 g
Dimension	113 × 110 × 21 mm (4.45 × 4.33 × 0.83 in)
Installation	Wall Screws Mounting
Approvals	
Regulatory	FCC, ISED

◆ Dimensions (mm)





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