

WxS885D-911411

LoRaWan Fan Coil Thermostat Control Panel

WxS885D-911411 is a wireless intelligent temperature controller designed specifically for smart energy-saving management of central air conditioning, using standard LoRaWAN protocol, long-distance wireless communication. The device integrates wireless communication technology LoRa, replacing traditional thermostats, and can regularly report the operating status of the air conditioner, remotely set the air conditioner temperature and working mode, remotely control the air conditioner switch, and lock the local panel of the thermostat.

Widely used in intelligent building parks, factories, hotels, shopping malls, hospitals, office buildings and other scenarios for centralized management and control of central air conditioning energy conservation, effectively reducing operating costs.

Product Highlights

- ❖ Wireless spread spectrum transmission technology LoRa, low power consumption, spread spectrum anti-interference, strong penetration;
- ❖ Standard LoRaWAN protocol, simple network topology, few gateways, and low maintenance costs;
- ❖ Luxury LCD display, dual temperature display for setting temperature and ambient temperature;
- ❖ Touch the buttons on the panel to control, with good sensitivity and high reliability;
- ❖ Real time remote command control, modification of set temperature and working mode, air conditioning switch, button locking, etc;
- ❖ High power output, capable of carrying 300W fan coil units;
- ❖ Regularly report air conditioning data, and the reporting frequency can be configured online;
- ❖ V0 level flame-retardant shell, standard 86 junction box, easy installation and deployment.



Specifications

Parameters	
Working mode	Cooling, heating, ventilation, dehumidification (constant 5 °C)
Wind speed mode	Four speed (low speed, medium speed, high speed, automatic)
Status reporting	Switch status, working mode, wind speed mode, current temperature, preset temperature, current time
Key control	Power on/off, working mode, wind speed mode, modify preset temperature

Remote control	Power on/off, working mode, wind speed mode, modify preset temperature, key lock
Temperature control range	10 °C~30 °C
Temperature control accuracy	± 1 °C
Temperature measurement range	5-60 °C
Load capacity	500W (can carry 300W fan coil unit)
Data reporting	Timed reporting, default frequency of 10 minutes (can be set online)
Wireless	
Communication protocol	LoRaWAN 1.0.2
Communication mode	Class C (instant downlink communication)
Communication frequency band	CN470/EU868/US915/AU915/AS923
Transmission power	≤ 17dBm
Receiver sensitivity	-142dBm
Material	
Size	Standard 86 boxes (86*86*13mm)
Working temperature	-20 °C~+60 °C
Working humidity	≤ 95% RH (non freezing, non condensing)
Flame retardant shell	V0 level flame retardant
Installation method	Hole spacing 60mm
Power	
Working power supply	AC220V ± 10% 50/60Hz
Rated power	< 1.5W

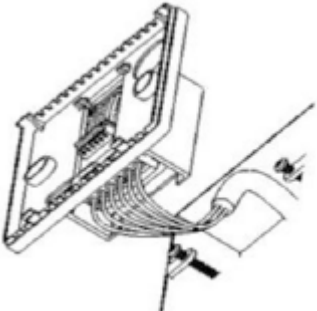
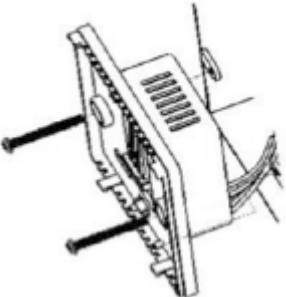
Installation and Usage

1. Installation requirements

- 1) Use according to the specified rated current, overloading may damage the thermostat;
- 2) The terminal block must be tightly pressed and reliably connected, otherwise there is a risk of overheating and fire;
- 3) During decoration, protection should be taken to avoid the heat dissipation holes around being blocked by powder slurry, which may corrode the temperature measuring probe or cause overheating damage;
- 4) Do not invert the thermostat or place it above the heat source, and the distance from the heat source should also be greater than 30CM;
- 5) After being powered on for half an hour, the thermostat enters a stable working state. If there is an error in the displayed temperature, carefully check whether the wiring terminals are tightly pressed and reliably connected, whether the heat dissipation holes are blocked by decoration, whether the dust cover is removed, and whether they are too close to the heat source. If there are still errors, professional assistance can be sought to calibrate the displayed temperature in the backend settings.
- 6) Never install the temperature controller on the decorative surface of flammable materials, as there is a risk of overheating and fire.

2. Installation steps

- 1) Use a straight screwdriver to gently pry open the two fixing holes on the lower edge of the temperature controller to detach the front and rear bodies;
- 2) Use screws to fix the back cover part inside the 86 box;
- 3) Insert the fixing clip on the inner side of the front panel into the fixing hole on the back cover edge, and then gently press the lower edge of the front panel to make the front and rear parts tightly fit.

	
1. Connect the cables correctly according to the wiring diagram on the back of the thermostat, ensuring the connections are securely fastened and free of looseness.	2. Insert a flathead screwdriver (3.5mm wide) into the bottom slot, apply slight force to pry it up, and the front panel can be opened to remove it from the thermostat.
	
3. Use the screws provided in the packaging to secure the thermostat base plate to the pre-installed 86 junction box on the wall.	4. Insert the front panel diagonally into the two upper slots of the lower housing, then apply slight pressure to the bottom of the front panel to snap it into the lower clips, and check that it is installed securely.

Device communication network access

- 1) Connect the device to the network, ensure that the communication frequency of the device is consistent with that of the gateway, and first register and add device information and keys in the network server. LoRaWAN terminals have two network access methods, OTAA and ABP, with triple information provided by the manufacturer ABP (DevAddr、AppSkey、NwkSkey)、OTAA (DevEUI、AppKey、AppEUI), OTAA The device needs to be registered with the network server before being powered on. When powered on, a network access request will be sent, and the network server will allocate a communication short address Devaddr to the terminal only when the request matches the registration information.

- 2) After network registration, the device automatically reports status data, and the gateway will send the data to the network server upon receiving it.
- 3) After receiving the data, the network server will forward it to the application server through the MQTT protocol, and the application server will parse the device status according to the data protocol.

Application location

Libraries, offices, computer rooms, commercial buildings, museums, shared spaces