

WiFi Temperature and Humidity Data Logger

User Manual

V1.4.5

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Introduction

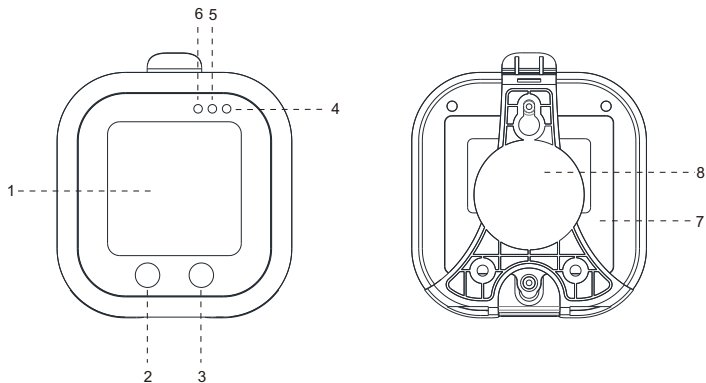
WIFI series temperature and humidity data logger is with professional PC software, mobile APP and website system. Users can choose one of them to configure the specification and settings of the device. They can also view and analyze the data in real time by the website system and mobile APP. This series is with high accuracy and stability, which is suitable for household, food and drug cold chain, production and transportation, etc.

1. Safety Instructions

Please read the safety instruction below carefully before using the device:

- (1) The temperature and humidity range of the environment is $-10\sim 50^{\circ}\text{C}$, $0\sim 100\%\text{RH}$ (non-condensing) when the device is working properly. If the device is used over the defined measuring range, it might be damaged.
- (2) Please do not use the USB port of the PC as power supply.
- (3) Please do not disassemble or repair the device for layman.
- (4) Please take out the battery if the device will not be used for a long time.
- (5) Please dispose the used battery according to the legitimate regulations.
- (6) Please avoid sun exposure.
- (7) Please prevent strong electricity and static impact.
- (8) Please avoid direct contact with corrosive chemicals.

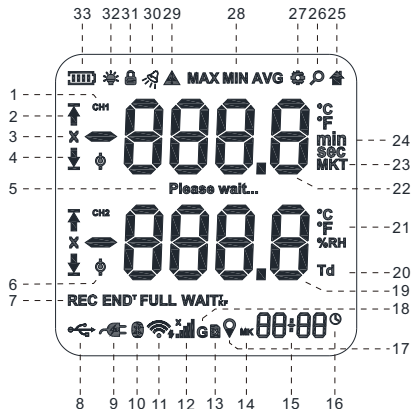
2. View



- 1. LCD
- 2. Button 1
- 3. Button 2
- 4. Blue Indicator Light
- 5. Red Indicator Light

- 6. Green Indicator Light
- 7. Battery Compartment
- 8. Bracket

3. LCD Display



1. Channel No.
2. Sign for maximum limit
3. Sign for alarm mark
4. Sign for minimum limit
5. Sign for waiting
6. Sign of external probe
7. Recording status
8. USB connecting indication
9. USB charging indication
10. Bluetooth
11. WiFi
12. Signal intensity indication
13. Sign for SIM card error
14. Mark indication
15. Time
16. Sign for clock
17. Sign for location
18. Sign for signal research
19. Measurement data display area 2
20. Sign for dew-poin temperature
21. Temperature & humidity unit
22. Measurement data display area 1
23. Sign for MKT
24. Time Unit
25. Main mode indication
26. Query mode indication
27. Setting mode indication
28. Sign for mean, max & min
29. Warning
30. Beep alarm indication
31. Sign for keylock
32. Backlight indication
33. Battery indication

- ↑ : When the recording data is over maximum limit, this sign will be shown.
- ↓ : When the recording data is over minimum limit, this sign will be shown.
- X : once or present the recording data alarm, this sign will be shown.

4. Specification

Probe Type	 Internal Probe, External Standard Probe	 External Temperature and Humidity Probe	 Internal Probe, External PT Probe
Measuring Parameter	Temperature	Temperature, Humidity	Temperature
Measuring Range	Internal: -30~65°C External: -40~125°C	Temperature: -40~125°C Humidity: 0~100%RH(Non-condensing)	See the datasheet for details
Accuracy	±0.2°C(0~65°C) Please see the datasheet for other measuring range	See the datasheet for details	
Resolution	0.1°C	Temperature: 0.1°C; Humidity: 0.1%RH	0.1°C
Storage Capacity	25920 groups of measuring data		
Response Time(t_{90})	15 min(Internal probe); 5 min(External probe)		
Sample Interval	5 seconds		
Data Synchronization Time	Maximum interval is 24 hours, user optional		
Operation Temperature	-10~50°C(Non-condensing)		
Storage Temperature	-20~60°C(Without battery)		
Power Supply	4 PCS 1.5V AA alkaline batteries; USB 5V/2A		
Battery Life	About 1 year(Condition: Battery capacity 2000mAh, environment temperature 25°C, interval of recording and communication time is over 5 minutes, and with good network signal)		
Charging Port	Micro USB, DC 5V/2A		
Protection Class	IP65		
Case Material	ABS		
Size	109*96*35mm		
Weight	About 157g(Not including battery and magnet)		

Note: The LCD and LED are not indicated at the same time, the LED function is disabled when the LCD is turned on, and the LED function is enabled when the LCD is turned off.

5. Introduction of Indicator Lights

- (1) Press the button to start recording: the green indicator light flashes every 1s.
- (2) Press the button to stop recording: the red indicator light flashes every 1s.
- (3) Press the button to be not recordable: green and red indicator lights flash at intervals of 1s at the same time.
- (4) Press the button to enter the configuration: the green and blue indicator lights flash at intervals of 1s at the same time.
- (5) Press the button to exit configuration: red and blue indicator lights flash at intervals of 1s at the same time.
- (6) Press the button to be not configurable: the three indicator lights flash at intervals of 1s at the same time.
- (7) Searching the network: the blue indicator light flashes every 1s.
- (8) The network has been searched: the blue indicator light flashes every 2s.
- (9) The device can be configured: the blue indicator light is on continuously.
- (10) Recording: flashing once every 10s, red indicator light flashing means alarm, green indicator light flashing means no alarm, blue indicator light flashing means WiFi error.
- (11) Stop recording: flashing twice at 10s, red indicator light flashing means alarm, green indicator light flashing means no alarm.
- (12) File conversion: the red indicator light flashes every 1s.
- (13) Dot operation: the red indicator light flashes once.
- (14) Plug in USB: three kinds of indicator lights keep on at the same time.

6. Introduction of Backlight

The instrument is equipped with the function of turning on the backlight. Press the button during use, the backlight will be automatically on. When there is no operation within 5 seconds, the backlight will be automatically off.

7. Introduction of Buttons

7.1 Function of Button 1

- (1) Short press: switch time interface and MARK interface.
- (2) Long press: Start and stop WiFi configuration when not recording, and start WiFi data transmission when recording.

7.2 Function of Button 2

- (1) Short press: switch between maximum value, minimum value, average value, limit value and error identification.
- (2) Long press: start and stop recording.

7.3 Function of Button Combination

- (1) Short press: MARK.
- (2) Long press: turn the screen on and off.

Note: The button combination is to press button 1 and 2 at the same time. Please refer to the appearance diagram for the button identification.

8. Introduction of Buzzer Over Limit Alarm

The instrument is equipped with an external buzzer over-limit alarm function. The external alarm can be connected to the instrument through the USB interface. When the instrument exceeds the limit, the external alarm will immediately alarm. If there is any button operation during the alarm, the alarm will be terminated. The single alarm time is limited to a maximum of 5 minutes, and the maximum alarm time is limited to 15 minutes

when there is no operation of the instrument within 2 hours.

9. Instruction

9.1 Start Up

Automatically start up after connecting to the power source such as installing available batteries or plugging in a USB.

9.2 Shut Down

When the battery power is too low, the instrument will automatically shut down (it must be powered on again to start up).

9.3 Turn on the LCD

When the LCD is off, press and hold the button 1 and 2 for about 3s to turn on the LCD.

9.4 Turn off the LCD

When the LCD is on, press and hold the button 1 and 2 for about 3s to turn off the LCD.

9.5 Start Recording

(1) Press and hold button 2 for about 3s to start recording. When the instrument is set to be non-repetitive startup record and has been used, or the instrument is not bound to an account, the startup fails.

(2) When the number of recording points reaches the maximum limit, the instrument automatically stops recording, and automatically starts recording after 3 minutes (the condition (1) must be met).

9.6 Stop Recording

(1) Long press the button 2 for about 3s to stop recording (this operation needs to enable the function of pressing the button to stop).

(2) When the number of recorded points reaches the maximum limit, the instrument automatically stops recording.

(3) When the battery power is too low, it will automatically stop recording, then save the data and shut down.

9.7 WiFi Configuration

(1) Press button 1 for about 3s to enter WiFi configuration mode.

(2) After entering the WiFi configuration mode, you can long press the button 1 again to end the WiFi

configuration process.

- (3) Press the button to enter the WiFi configuration mode, please wait for a certain time for the WiFi to start.
- (4) Configuration mode will exit if there's no correct WiFi configuration information within 120s after entering the configuration mode.
- (5) When the LCD is in the 120s countdown state or the blue indicator light is always on, WiFi configuration can be performed, and the configuration mode will exit if there's correct configuration information.
- (6) Press the Button to enter the configuration mode is only applied for configuring binding information on the mobile phone APP.

9.8 Record Configuration

- (1) After the instrument is connected to the PC, open the equipped software on the PC and configure the instrument to record information.
- (2) The configuration of the mobile phone APP and web page requires the user to log in to the account before configuring the recording information. The configuration information will be sent to the instrument through the network.

9.9 Query of Max/Min/AVG/Limits/Error(With LCD on)

- (1) When no valid data is recorded, press button 2 in turn to query the limit value and error identification.
- (2) When valid data is recorded, press button 2 in turn to query the maximum value, minimum value, average value, limit value and error identification.
- (3) After entering the query state,  disappears,  is displayed, if no operation or no other buttons are pressed for 15s, the LCD will turn to the main mode interface, disappears and is displayed.

9.10 Switch Time/Mark Interface(With LCD on)

Press button 1 in turn to switch the year, month, day, hour, and mark interface.

9.11 Mark

- (1) When the recording function is enabled and the LCD display is in the mark interface, press the button1 and 2 to mark.
- (2) When the recording function is enabled but the LCD is off, pressing the button1 and 2 to can also mark.

9.12 Generate File

- (1) Insert the recorded instrument into a readable U disk device (mobile phone, PC, etc.), and you can view the file on the device.
- (2) It takes a certain amount of time to convert and generate the file. At this time, the “**Please wait...**” on the LCD flashes or the red indicator light flashes.
- (3) After the file conversion is completed,  is displayed and the “**USB**” character appears.
- (4) It is also possible to read data and export files in various formats through dedicated software on the PC.

10. Introduction of Network Communication

10.1 Account Binding

When using the instrument, the instrument needs to be bound to the user account (account can be applied through the mobile phone APP or web system). Account binding requires three binding information, which are the user's account random code, WiFi account number and WiFi password. Users can configure the binding information through the APP on the mobile phone or professional software on the PC.

10.1.1 Mobile APP Configuration Binding Information

- (1) The user enters APP -> Login Account -> Me -> Device List, click Add Device, type the device name and click Next.
- (2) Type the WiFi account and password that the instrument needs to connect.
- (3) Long press the instrument configuration button to enter the configuration mode.
- (4) Use the mobile phone to connect the wireless SSID of the instrument (SSID name is the device serial number, SSID password is 123456789).
- (5) Click the Add button.
- (6) Please wait a moment. The instrument automatically accesses the account. When the network is in good condition, the access time does not exceed 3 minutes.

10.1.2 PC Professional Software Configuration Binding Information

- (1) The user enters the web system -> Login Account -> Device List, click to obtain a random code, type the

device name and click confirm to get the random code.

(2) Connect the instrument to the PC and open the professional software on the PC, enter the configuration interface and click to set the WiFi information.

(3) Type the WiFi account and password that the instrument needs to connect.

(4) Copy the applied random code to the account random code, and set the time of data synchronization time.

(5) Click Save to set up successfully.

(6) After disconnecting the instrument from the PC, the instrument automatically accesses the account. When the network is in good condition, the access time does not exceed 3 minutes.

10.2 Data Viewing and Analysis

(1) Multiple instruments can correspond to one account that the user applies for. When viewing and analyzing, one of the instruments needs to be selected for operation. The selected instrument is called the main device, and the user can use both the mobile phone APP and the web page to change the device type at any time to facilitate viewing and analyzing data.

(2) The real-time data of the main device can be viewed through the mobile phone APP and the home page of web page.

(3) The data of main device can be viewed through the mobile phone APP and data center of web page. The data being recorded can only be viewed and analyzed, and the historical data can be viewed, deleted, analyzed, and exported files. Users can export PDF, TXT, XLS, CSV according to their needs.

(4) The real-time data alarm information can be configured to be sent by SMS or email. For details, please consult after-sales service personnel.

10.3 Configuration via Network

(1) The user can configure the record information through the mobile phone APP and web page when the main device connected to the account normally.

(2) The user can change the configuration information recorded of the main device by opening the configuration interface on the mobile phone APP or web page. After the configuration is completed, when the main device synchronizes data, the configuration information is automatically updated, and the data being recorded is ended

and a new recording is started.

10.4 Unbind Account

- (1) One account can only be bound to one instrument. When it is necessary to bind the instrument to another account, the instrument must first be unbound from the existing account, and the user can unbind it through the mobile APP and web page.
- (2) The user enters APP -> Login -> Me -> Device List, click Unbind to complete the account unbind.
- (3) The user enters the web system -> Login -> Device List, click Unbind to complete the account unbind.
- (4) After the account is unbound, the instrument also needs to be unbound.
- (5) The instrument communicates according to the set synchronization time, so the communication cycle may be long. The instrument can communicate quickly by user operating the keys to complete the unbinding of the instrument.

11. Tips and FAQ

11.1 Tips

- (1) When the instrument communicates, it will search for the specified WiFi account first. The WiFi icon on the LCD flashes or the blue indicator light flashes every 1s means it is searching. After the search is completed and WiFi connected, the WiFi icon on the LCD will display different signal grids according to the searched signal strength or the blue indicator light flashes every 2s means it has been connected to the specified WiFi account.
- (2) When the battery power indicator is displayed  on the LCD of the instrument, it is recommended to replace the battery before use.
- (3) The instrument can only use the external probe provided by our company. If you need to use a probe that is not provided by our company, please consult the after-sales service personnel.
- (4) When pressing the button to start recording, the instrument will first communicate with the server, and the recording will start after the communication is successful. If the communication fails, the recording will not be performed.

(5) The LCD recording status indications correspond to the table below (the instrument normally operate).

Correspondence Table of Record Status Indication

WAIT _K	Wait to press the button to start recording
WAIT ^T	Wait for the start delay to end
REC	Recording
END	Press the button to stop recording
END ^T	Stop recording when the start delay does not end
END FULL	Stop recording when the number of recorded points reaches the maximum limit

11.2 FAQ

Questions	Reasons and solutions
Error identification Err-1 is displayed	Power supply is seriously insufficient, please replace batteries or use USB to supply power.
Error identification Err-5 is displayed	The WiFi account or password is incorrect.
Error identification Err-6 is displayed	The WiFi has not been found.
Error identification Err-4, Err-7, Err-8, Err-9 is displayed	The instrument failed to connect to the WiFi. Please confirm that the configured WiFi is available.
Error identification Err-11, Err-12, Err-13 is displayed	Server communication failure, please check whether the network is in good condition.
Error identification Err-15 is displayed	Instrument is not bound to the account, please bind the instrument to the server before operation.
Error identification Err-17 is displayed	Power supply is seriously insufficient, please replace batteries or use USB to supply power.
Whether recording is affected by error status after the instrument has started recording?	The error status of the instrument that has started recording will not affect the recording. The recorded data will be saved in the instrument, when connecting to network and power supply, the instrument will synchronize the saved data to the server.
 Is displayed	Time will not be resynchronized after instrument is powered on. When the network is good, time will be synchronized automatically, or user can use PC software to set the time.
Err is displayed and the LCD flashes	The forced termination during the USB insertion process causes an error in the instrument. After 5 seconds, the LCD will automatically return to normal.

If you have any questions, please consult the after-sales service personnel.

