Temperature and humidity loggers

Product Manual

(V2.0)

1. Product overview

Temperature and humidity recorder products are mainly used in the storage or transportation of food, pharmaceuticals, greenhouses, chemical supplies and other products, and are widely used in various links such as warehousing, logistics and cold chain, such as refrigerators, containers, cold storage, Drug warehouses, underground storage warehouses, laboratories, etc., and can be combined with host computer software and Internet of Things technology to effectively perform statistical analysis on temperature and humidity data.

2. Product features

1. Display interface: large-screen LCD display supports online setting of parameters such as storage time interval, data upload frequency, temperature and humidity alarm value.

2. Measurement accuracy: The highest measurement accuracy can reach 1.5%RH, ±0.1°C.

3. Signal output mode: Support RS485, 4G, NB, Ethernet data transmission.

4. Supporting system application: supporting computer software, cloud platform, WeChat applet and other auxiliary tools to facilitate data viewing, processing and analysis.

5. Storage capacity: with high-speed USB interface, large-capacity storage, can store 1 million sets of data.

6. Sound and light alarm: With sound and light alarm function, one control relay output can be configured (optional).

3. Technical indicators

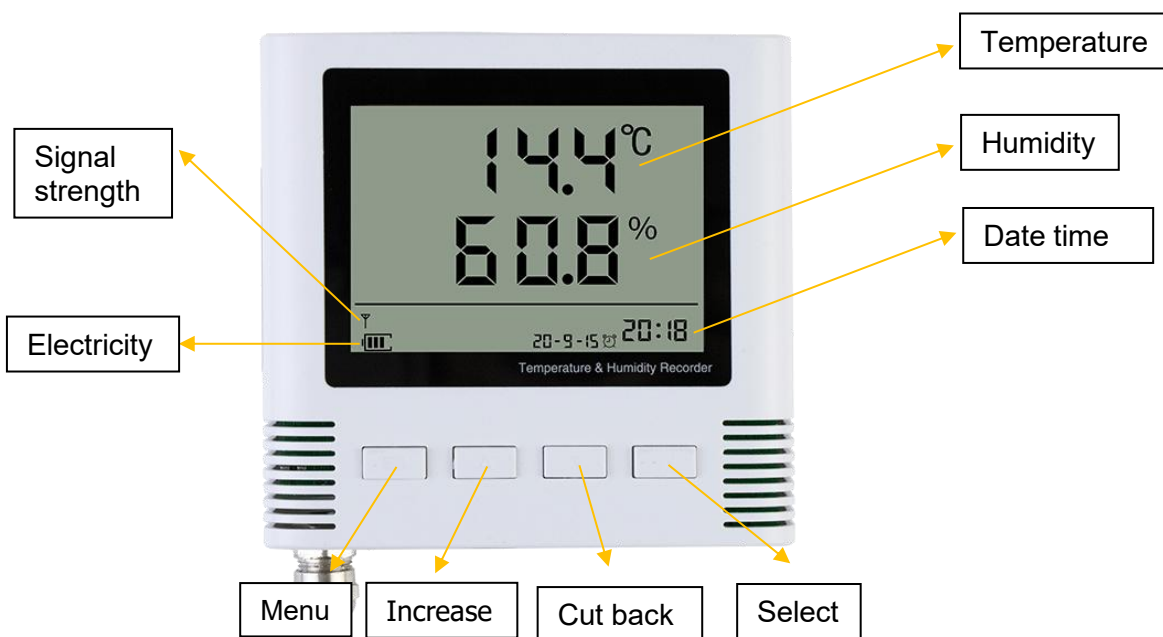|	
Measuring range	Built-in probe: 0-100%RH, -20-70℃ External probe: 0-100%RH, -40-100℃.
Temperature accuracy	Ordinary accuracy ±0.2℃/High accuracy ±0.1℃
Humidity accuracy	Ordinary accuracy ±2%RH/High accuracy ±1.5%RH
Data export interface	USB
Display method	Segment LCD
Number of channels	The default is 1 channel, and the maximum support is 4 channels. If multiple channels are required, please specify when ordering.
Operation method	Button
Power supply	Battery power supply (2 18650 3.7V batteries)/Micro USB external power supply, optional rechargeable lithium battery, charging life 1200 times
Data viewing method	Digital display, host computer software, WeChat applet, cloud platform,
Average power consumption (battery powered)	4G version 1.1mA, data upload frequency 1 hour every time; NB version 0.8mA data upload frequency 10 minutes every time
Wireless transmission method and communication protocol	NB(LWM2M)/4G（MQTT)
Wired transmission method and communication protocol	Ethernet (Modbus TCP)/RS485 (Modbus RTU)
Storage capacity	1 million groups (single channel)

4. Instrument display and operating instructions

4.1 Keyboard function and usage mode

Key symbol, name and function comparison table

Symbol	Name	Features
≡	Menu	Menu selection, low-power wake-up
△	Add key	Increase
▽	Decrease key	Cut back
↵	Select key/back	Switch selection, shift, return; Parameter settings are automatically saved after pressing this button to return

4.2 Product appearance display diagram

The main interface contains information such as temperature, humidity, battery power, signal strength, date and time, etc.
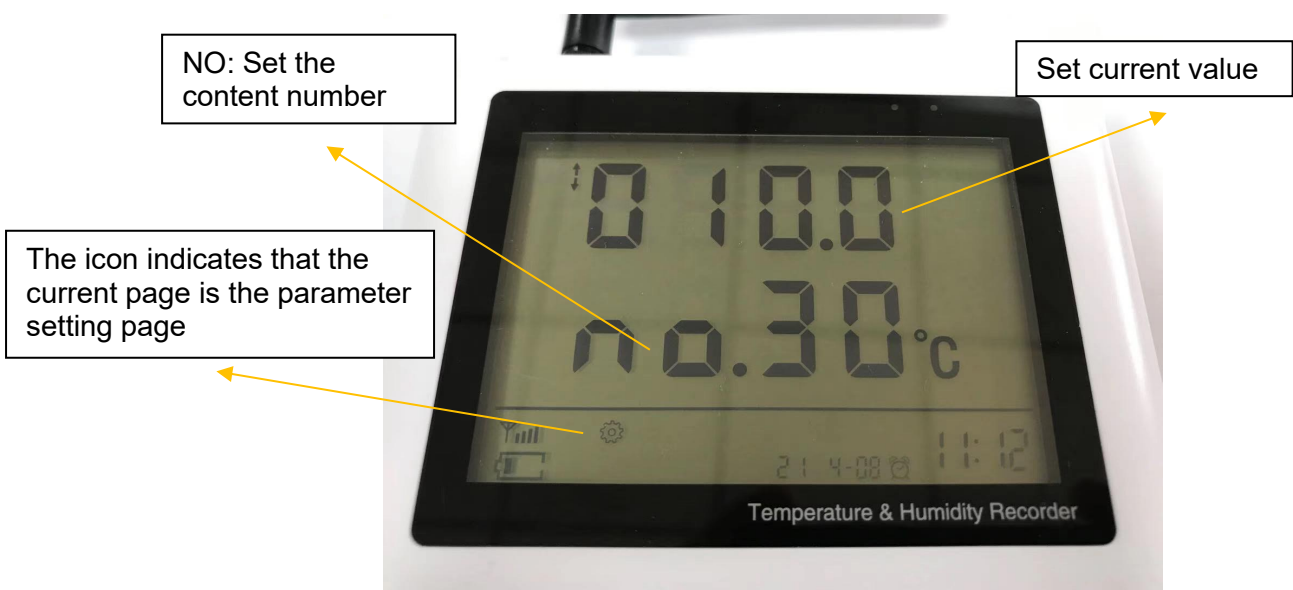
4.3 Time modification

The icon indicates that the current page is the time setting page

The currently selected setting item (selected and flashing)
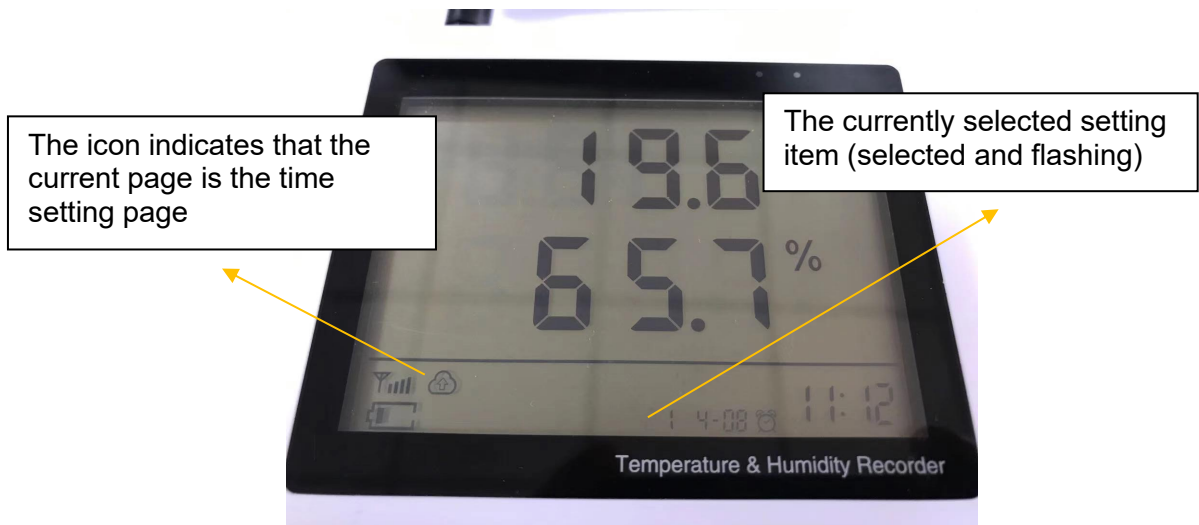
4.3.1 Function introduction

◆ Press 【Menu】: Switch menu.

◆ Press [Increase]: the value increases.

◆ Press 【decrease】: the value decreases.

◆ Press [Return]: select the parameter that needs to be modified or exit the modification interface (when a parameter is flashing, it is in the selected state).

4.4 Parameter modification

NO: Set the content number

Set current value

The icon indicates that the current page is the parameter setting page

4.4.1 Parameter number selection

◆ Press 【Menu】: Switch menu.

◆ Press [Increase]: The parameter number increases.

◆ Press [Decrease]: The parameter number decreases.

◆ Press [Return]: Enter the value modification interface (when a parameter is flashing, it is in the selected state).

Explanation of the meaning of the channel number:

Channel 1: Built-in temperature and humidity (default, can be customized as an external probe)

Channel 2: External temperature and humidity probe (optional)

Channel 3: External temperature and humidity probe (optional)

Channel 4: External temperature and humidity probe (optional)

Number NO.	Parameter name	Number NO.	Parameter name
1	Baud rate (actual value/100, such as 96 means the baud rate is 9600)	16	Channel 1 high humidity report
2	Data bit (8 bits by default)	17	Channel 2 high temperature report
3	Parity bit (No verification by default)	18	Channel 2 high humidity report
4	Stop bit (Default 1 bit)	19	Channel 3 high temperature report
5	Type of data: '0'-> plastic surgery '1'-> floating point	20	Channel 3 high humidity reported value
6	Address: default 1	21	Channel 4 high temperature report
7	Temperature unit: 0->Temperature 1->Hua degrees Celsius	22	Channel 4 high humidity report
8	Recording interval: unit S	23	Channel 1 temperature under-

			reported value
9	Record interval when alarming: unit S	24	Channel 1 humidity low reported value
10	Return difference: Alarm return difference value	25	Channel 2 temperature low reported value
11	Last frequency of wireless data: in minutes	26	Channel 2 humidity low reported value
12	Restore factory parameter password: Set "1234" to restore factory setting parameters Set "5678" as the formatted history storage number according to Other values are not operated	27	Channel 3 low temperature report
13	Reserved parameters	28	Channel 3 low humidity reported value
14	Reserved parameters	29	Channel 4 low temperature report
15	Channel 1 high temperature report	30	Channel 4 low humidity reported value

4.4.2 Parameter value modification

◆ Press 【Menu】: Switch menu.

◆ Press [Increase]: the value increases.

◆ Press【decrease】: the value decreases.

◆ Press [Return]: select the parameter that needs to be modified or exit the modification interface

(when a parameter is flashing, it is in the selected state).

Notes

1、 After unpacking the product, please check whether the appearance of the product is intact, verify whether the relevant content of the product manual is consistent with the product, and properly keep the product manual for more than one year;

2、 Strictly follow the wiring diagram of the product, and work under the allowable voltage of the product, and do not use over-voltage;

3、 Don't knock the product, so as not to damage the appearance and internal structure of the ring;

4、 The product has no customer repair parts, please contact our company if there is a failure;

5、 If the company's product fails under normal use, the warranty period is one year (from the date of shipment from the company to the date of return). Whether it is a failure under normal circumstances, the quality of our company's quality inspector will determine in accordance with. For maintenance beyond the time limit, the company will charge a basic fee, and all products of the company will be repaired for life;

6、 When the meter is out of service or in stock, the power should be turned off to stop working, which has prolonged the service life of the battery. The user should use the same type of battery to replace the battery, and replace it under the condition of good general condition and no gas leakage.

7、 For unexplained details, please refer to our company website or call for inquiries.