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Wireless Temp and Humidity Sensor
User Manual

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Chapter 1 Product Introduction

1.1 Product Overview

This industrial-grade Ethernet temperature and humidity sensor features an oversized LCD display. It collects real-time temperature and humidity data and communicates via Ethernet. Compared to traditional wired temperature and humidity systems, this networked transmitter integrates sensing and communication into a single device. It eliminates the need for gateways or communication hosts, functioning as a standalone IoT node.

1.2 Features and Functions

This product employs a high-sensitivity digital probe, ensuring stable signals and high accuracy. It features a wide measurement range, excellent linearity, user-friendly operation, easy installation, and long transmission distances.
The product utilizes a large LCD display with dual upper/lower limit control for temperature and humidity. Users can freely set thresholds to enable high/low temperature alarms and high/low humidity alarms, with real-time display.
This product finds extensive applications in server room monitoring systems, power monitoring systems, security engineering, healthcare monitoring, energy consumption monitoring systems, and smart home solutions.

1.3 Key Parameters

Model	SN-3006-WS-WIFI
Power Supply	10~30V DC
Communication Interface	Standard WIFI wireless (2.4GHz/5GHz)
IP Address	Supports static IP address, IP address auto-acquisition function, cross-gateway, domain name resolution, and WAN connectivity
WIFI Communication Parameters	Support 802.11b/g/n wireless standard
WIFI Encryption Performance	Supports WPA/WPA2 security mode
A Quasi Accuracy	Humidity: ±2%RH (60%RH,25℃)
Temperature: ±0.4℃ (25℃)	
B Quasi Accuracy	Humidity: ±3%RH (60%RH,25℃)
Temperature: ±0.5℃ (25℃)	
Transmitter Circuit Operating Temperature	-20℃~+60℃, 0%RH~80%RH
Probe Working Temperature	-40°C~+120°C, default-40°C~+80°C
Probe Working Humidity	0%RH-100%RH
Temperature Display Resolution	0.1℃
Humidity Display Resolution	0.1%RH
Temperature and Humidity Refresh Time	1s
Long-term Stability	Humidity: ≤1%RH/y
	Temperature: ≤0.1℃/y

Response Time[1]	Humidity: ≤25s (1m/s wind speed[2])
	Temperature: ≤8s (1m/s wind speed[2])
Data Upload Time	Default 20s/time, 1s~10000s can be set
Internal Storage	Recording period 1min-1h can be set, recording capacity: 65000 groups

1. Response time is τ 63.

2. Wind speed refers to the wind speed at the sensor's internal sensitive material. When the test environment wind speed is 10 ± 2 m/s, with the wind direction perpendicular to the sensor's intake port, the wind speed at the sensor's internal sensitive material is approximately 1 m/s.

Size:

Product Appearance Diagram:

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Chapter 2 Hardware Connection

2.1 Pre-Installation Equipment Inspection

Equipment List:

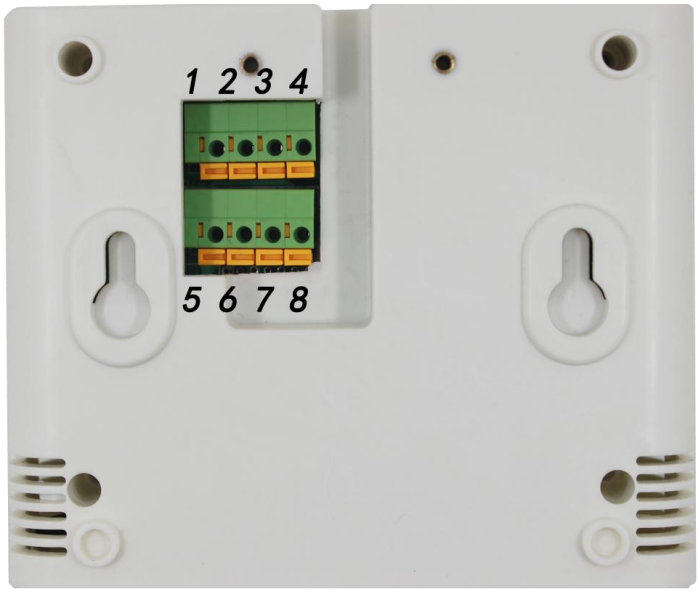
■ 1 unit of temperature and humidity transmitter

■ 1 pair of wall mounting clips, 2 expansion plugs, 2 self-tapping screws, 2 countersunk screws

■ 1 network cable (1 meter)

■ Audible and visual alarm (optional)

2.2 Interface Description



No.	Description	No.	Description
1	Power Positive (7–30V DC)	5	Reserved
2	Power Negative	6	
3	Relay 1 Normally Open (NO)	7	Relay 2 Normally Open (NO)
4		8	

Special Notes:

1) Power can be supplied either through the power socket or the screwless terminals.

2) Both relays feature normally open contact outputs, allowing flexible association with alarm events. Refer to the manual's button configuration section for details.

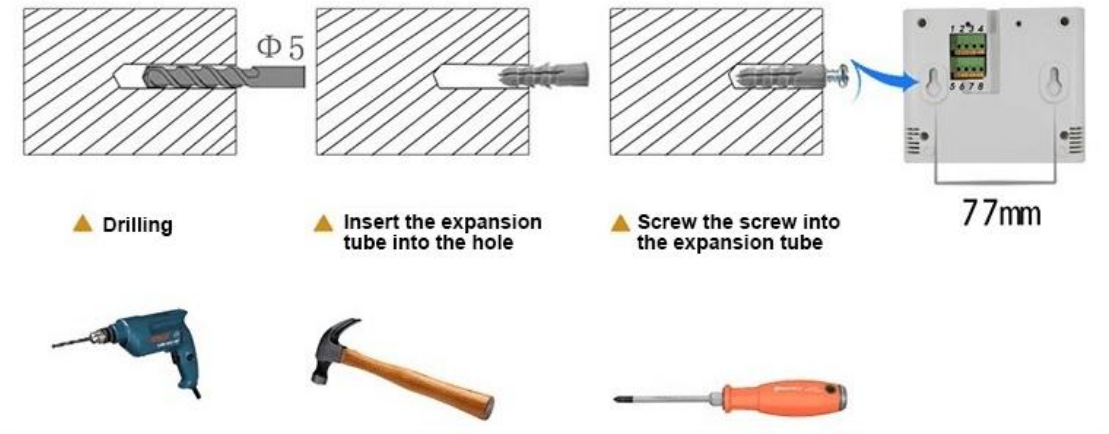
2.3 Installation Instructions

To facilitate on-site installation, we provide two mounting options:

1) Hoist Hole Mounting

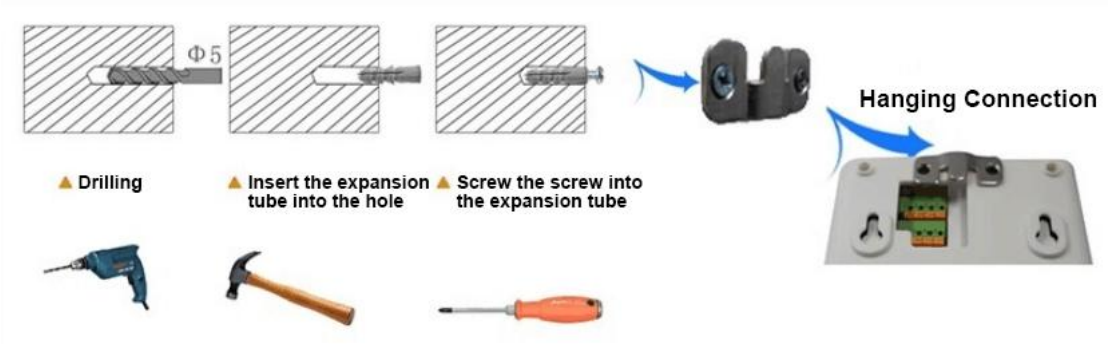
Instructions: Secure self-tapping screws and expansion bolts into predetermined wall positions. Mount the device using the wall-hanging method by attaching it to the

hoist holes.

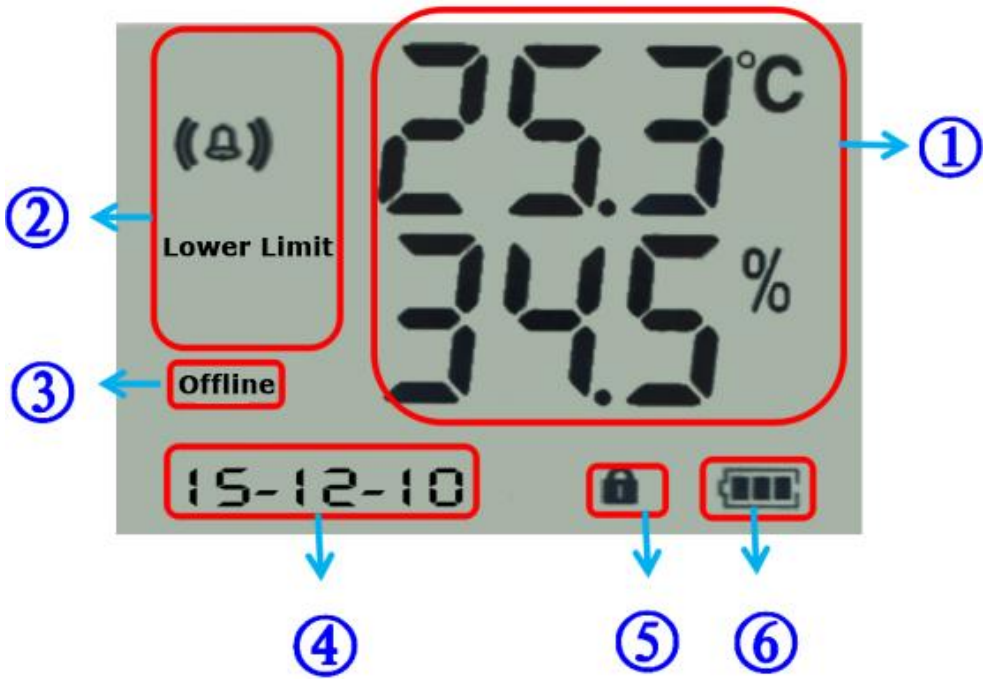


2) Wall-Mounted Hook Installation

Instructions: Secure one side of the hook to the wall using countersunk screws, and attach the other side to the equipment using screws. Then simply hook the two parts together.



2.4 Panel Description



Number	Description
①	Real-time temperature and humidity display
②	Temperature or humidity alarm alerts
③	Network disconnection notification
④	Rotating display of stored data count and system time
⑤	Indicator for parameter modification mode status
⑥	Remaining battery level display; external power models show full charge status

Chapter 3 System Menu and Settings

3.1 Key Function Descriptions

Button	Function	Description	Button Operation Mode
	Clear key	● Exit operation during parameter setup	Short press
	Return key	● Return to main menu when configuring or viewing interfaces	Short press
	Increase key	● Previous page button when viewing menus	Short press
	Previous page	● Data increment button during parameter modification	Short press
	Open	● Shortcut key to open alarms on main interface	Long press
	Next page	● Page-up key during menu viewing	Short press
	Decrease key	● Data decrease key during parameter modification	Short press
	Close	● Shortcut key to close alarms on the main interface	Long press
	Menu key	● Menu selection key to enter settings interface	Short press
	Shift key	● Shift key during parameter modification	Short press
	Confirm key	● Confirmation key after completing parameter modification	Long press

3.2 Key Operation Overview

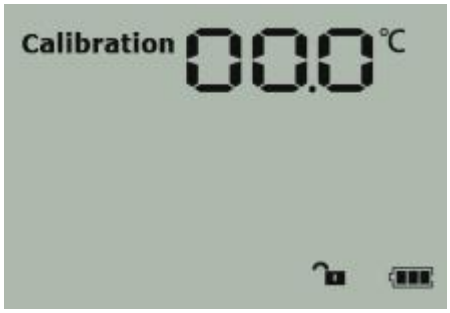
1) Press OK briefly to enter the password input screen. Press briefly ▲, ▼, or OK to enter the password (default password: 888). After inputting, press and hold the "OK" key again. After 3 seconds, the main settings menu will appear. An incorrect password will return you to the main menu.

2) In the main settings menu, press briefly ▲ or ▼ to navigate pages forward/backward. Press briefly to enter parameter settings.

3) Press briefly on ▲, ▼, or OK to modify parameters. After editing, press and hold OK until the parameter flashes for 3 seconds to auto-save.

4) During setup, press ↩ to cancel the current setting. Press again ↩ to return to the main menu.

3.3 Functional Display Item Description

Display Items	Function	Scope and Description	Default
	Password	0~999	888
	Temperature Calibration Value	-100~+100	0

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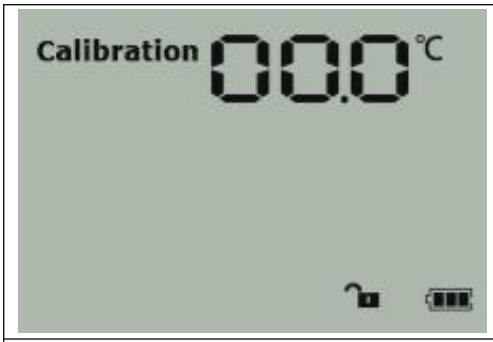
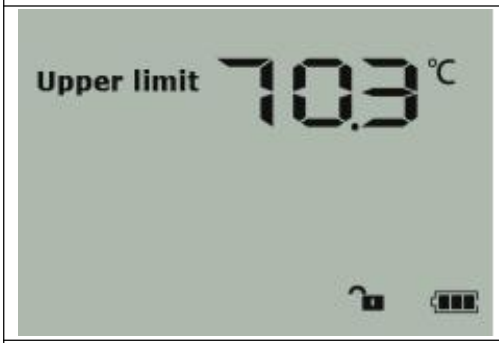
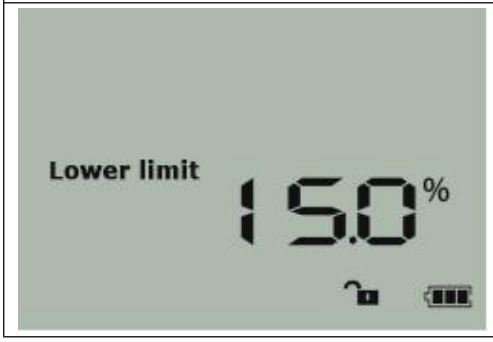
	Humidity Calibration Value	-100~+100	0
	Upper Temperature Limit Alarm Value	-100~+199	100
	Upper Humidity Limit Alarm Value	0~100	100
	Lower Temperature Limit Alarm Value	-100~+199	0
	Lower Limit Alarm Value for Humidity	0~100	0

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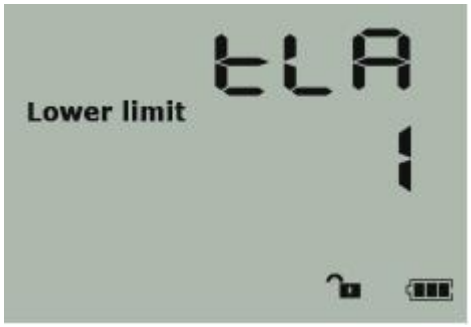
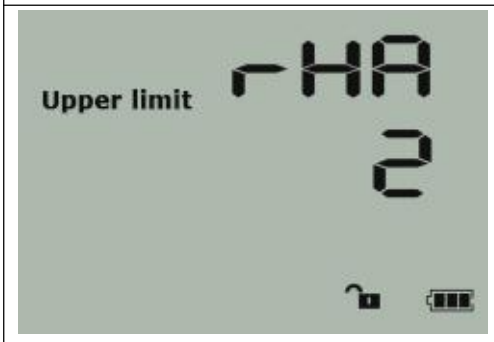
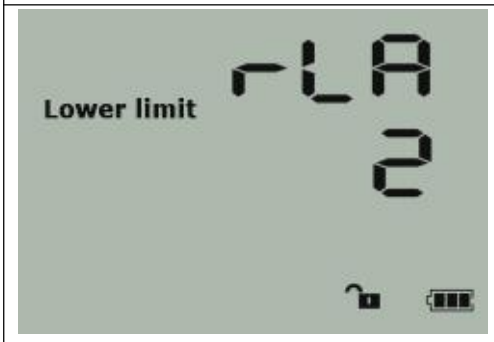
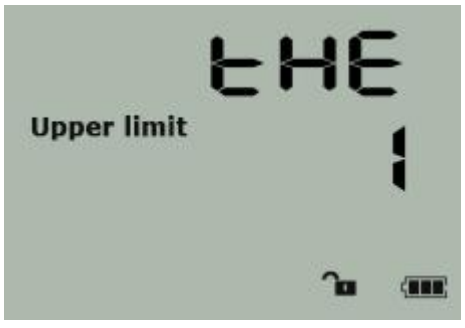
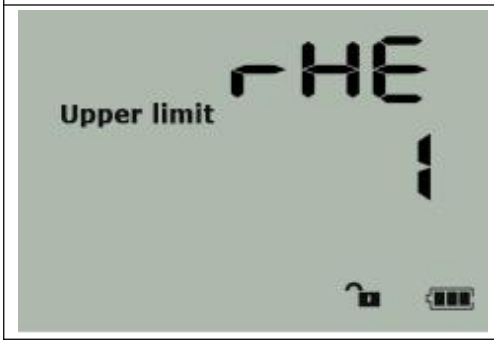
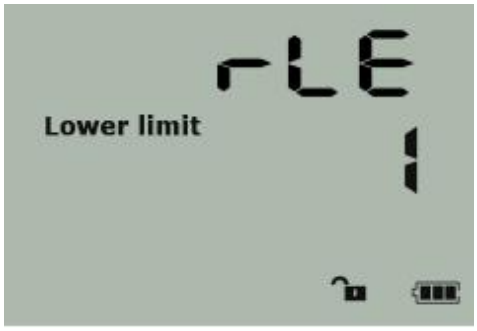
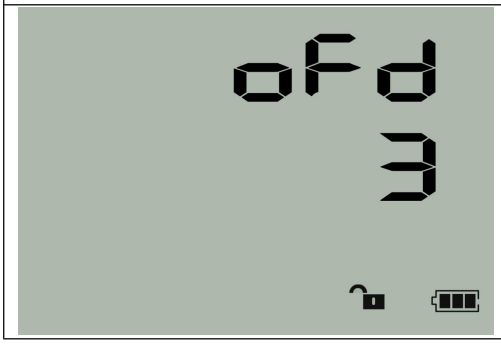
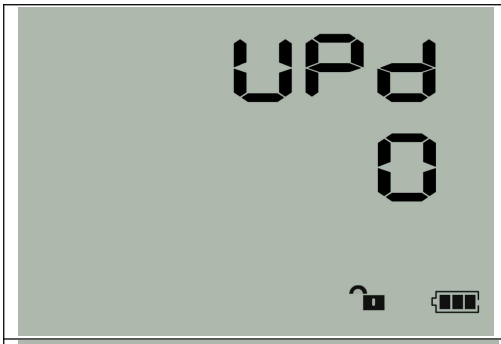
	Temperature Alarm Hysteresis Value	0~120	0
	Humidity Alarm Hysteresis Value	0~100	0
	Time	Hours, Minutes, Seconds	
	Time	Year, Month, Day	
	Upper Temperature Limit Relay Number	1~2 1: Indicates this alarm item is associated with the first relay 2: Indicates this alarm item is associated with the second relay When the temperature exceeds the upper limit, the relay associated with the upper limit closes.	1

	Lower Temperature Limit Associated Relay Number	1~2 1: Indicates this alarm item is associated with the first relay 2: Indicates this alarm item is associated with the second relay When the temperature falls below the lower limit, the relay associated with the lower limit closes.	1
	Upper Humidity Limit Associated Relay Number	1~2 1: Indicates this alarm item is associated with the first relay 2: Indicates this alarm item is associated with the second relay When humidity exceeds the upper limit, the relay associated with the upper limit closes.	1
	Lower Humidity Limit Associated Relay Number	1~2 1: Indicates this alarm item is associated with the first relay 2: Indicates this alarm item is associated with the second relay When humidity falls below the lower limit, the relay associated with the lower limit closes.	1
	Upper Temperature Limit Alarm Enabled	0 – 1 0: Disabled 1: Enabled	1

	Enable Low Temperature Alarm	0 – 1 0: Disabled 1: Enabled	1
	Enable High Humidity Alarm	0 – 1 0: Disabled 1: Enabled	1
	Enable Low Humidity Alarm	0 – 1 0: Disabled 1: Enabled	1
	Set Storage Interval	0 to 1999 minutes	30 minutes
	Set Storage Mode	1 – 3 1: Represents Off 2: Represents On 3: Represents Auto	3 (Stored only when communication is disconnected)

	Is active upload enabled for stored data?	0~1 0: represents disabled 1: represents enabled	0
	Clear stored data	0~1 Set to 1 to clear stored data	0