

AST104 Bluetooth Wireless Temperature Sensor



User Guide

Applicable Model: MD600/MD833H/T399/TA255

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Document Revision History

Version	Date	Modify
1.0	2025-12-30	First Draft.
1.1	2026-03-05	Modify the device parameters and add key explanations.



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1 Product Overview

The AST104 Wireless Temperature Sensor is an IP65 waterproof portable temperature and humidity sensor featuring BLE 4.2 Bluetooth wireless transmission. This design eliminates the need for extensive communication cables, pipelines, and power lines, enabling quick and simple installation tailored to on-site conditions, thereby reducing installation time and enhancing work efficiency. It includes a built-in battery with an ultra-long operating life of 3 years. Applicable to humidity and temperature measurement applications across multiple industries, including industrial monitoring, civil monitoring, machinery manufacturing, and environmental metrology. Applicable in environments such as laboratories, cleanrooms, museums, households, agricultural greenhouses, meteorological stations, national defense research, postal services, tobacco, chemical industry, environmental protection, archival and cultural relic preservation, computer rooms, warehouses, pharmaceutical storage, healthcare, hotels, food storage, grain, and other related temperature and humidity monitoring and control scenarios.

Product Features

- IP65 Waterproof Rating
- Measurement Accuracy: Temperature 0.01℃; Humidity 0.01%RH
- Built-in battery, 3 years of operation under normal temperature conditions.
- TA255L supports up to five temperature and humidity sensors simultaneously.

2 Specification Parameters

2.1 Receiver Specification Parameters

Item	Description
Waterproof Rating	IP65
Housing Material	ABS+PC
Main Body	75*66.5*27mm
Probe Dimensions	Φ15.5*48mm
Weight	106.8
Buttons	2,power button and function key
LED	One red indicator light, one blue indicator light
Battery Type	One ER14505 lithium battery
Supply Voltage	3V

Average Power Consumption	45mA
Battery Capacity	2700mAh
Temperature	-30°C~+70°C
Temperature	0.01°C
Temperature	±0.3°C
Humidity	0~100%RH
Humidity	0.01%RH
Humidity	±5%RH
Transmission Distance	10 meters

2.2 Key Description

Power button



Press and hold the power button for 3 seconds; a steady blue light for 3 seconds indicates that it is powered on, and the display shows the detection data.

Function key



Single press to switch data types: current temperature, average temperature,, average temperature, average humidity, MKT temperature, upper temperature limit U1, upper temperature limit U2, lower temperature limit L1, lower temperature limit L2, upper humidity limit U1, lower humidity limit L1.

Long press the function key for 3 seconds to mark the current temperature and humidity. After marking, the "MARK" label will be displayed on the screen.

3 Operating Instructions

AST104 Power On: Press and hold the power button for 3 seconds; the blue light will remain on for 3 seconds indicating power-on. By default, the operating mode does not show any indicator light response.

3.1 Configure Bluetooth Temperature and Humidity Sensor

1、Connect the TA255L to the PC MEITRACK MANAGER software as shown to configure the temperature and humidity sensor.

Bluetooth Settings

Version

CB255W1-V005

Mode

Scanning

Scanning interval(ms)

100

Scanning time(ms)

100

Set

Temperature and Humidity Senesor Setting

Alarm when signal lost for(secs)

60

Trigger Output1 When

☐ Lost
 ☐ Temperature too high
 ☐ Temperature too low
 ☐ Humidity too high
 ☐ Humidity too low

1

2

3

4

☒ Report Data

Heartbeat search duration(mins)

1

Device Name

MST01

MAC Address

C3:00:00:58:0C:5D

High Temperature Threshold

30

High Humidity Threshold

80

Low Temperature Threshold

10

Low Humidity Treshold

60

Set

Alarm when signal lost for (secs): If this Bluetooth temperature and humidity sensor is not detected within the specified time, an alarm will be triggered.

Trigger output when: OUT1 will be controlled upon detection of Bluetooth signal loss, high temperature, low temperature, high humidity, or low humidity.

Report Data: Whether to upload this Bluetooth data.

MAC Address: The MAC code of the Bluetooth Temperature and Humidity Sensor must be configured.

High/Low Temperature/Humidity Threshold: Parameters used to set alarm thresholds for high and low temperature and humidity.

Note: If the MAC code of the Bluetooth Temperature and Humidity Sensor cannot be found, it can be configured using the MEITRACK Manager APP.

2. Use the MEITRACK MANAGER APP on the mobile phone to connect to the TA255L and configure the Temperature and Humidity Sensor.

1) Open the MEITRACK Manager APP, automatically search for terminals, select the terminal, confirm, and enter the configuration interface as shown below:

Bluetooth Settings

Version

CB255W1-V005

Mode

Broadcasting

Broadcast name

866344051024664

Broadcasting interval(ms)

1000

Bluetooth password

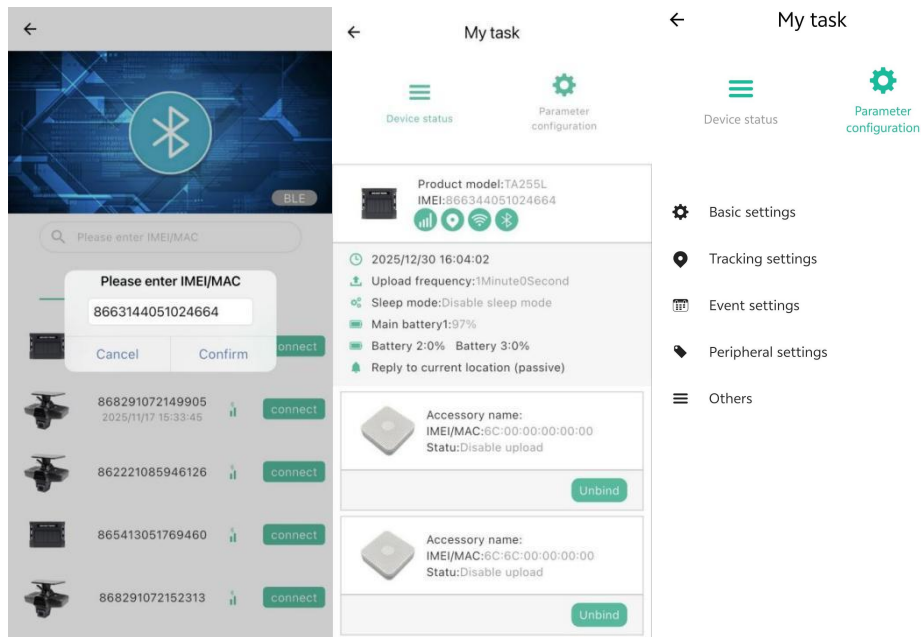
☐ Manufacturer specific data

Company Identifier Code

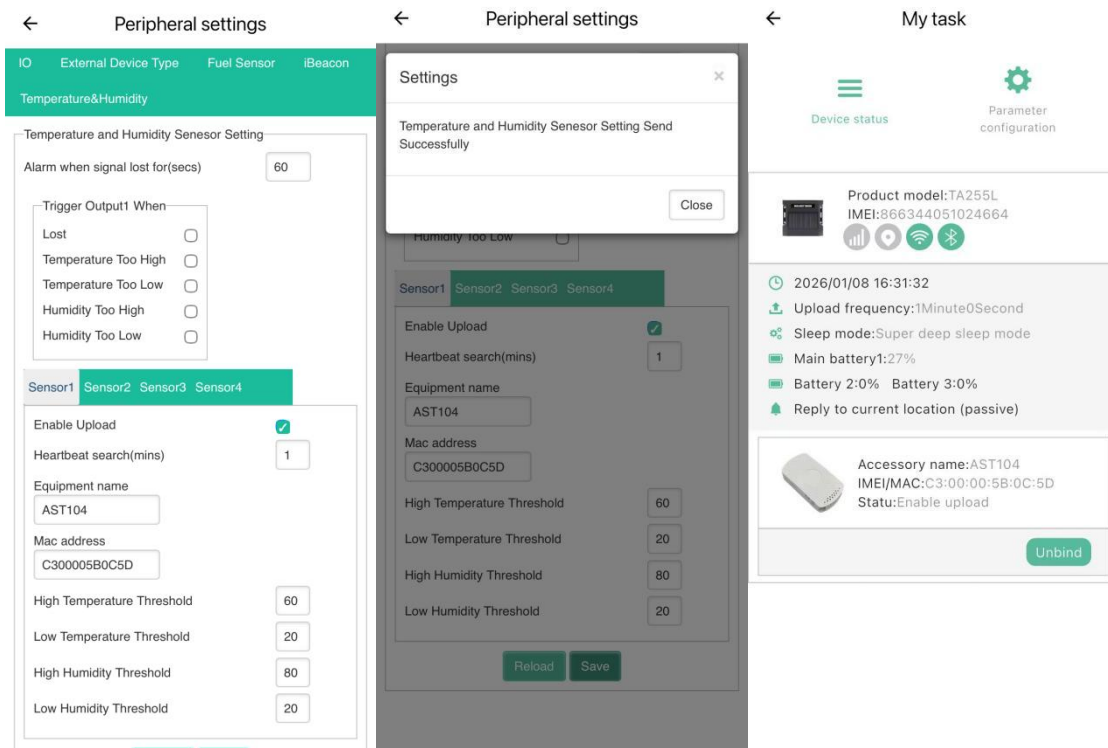
0000

Custom advertising data contents

Set



2) Configure the Temperature and Humidity Sensor by selecting Temperature & Humidity Sensor. It will automatically Search for the MAC addresses of nearby Bluetooth temperature and humidity sensors, as shown in the figure below:



4 Installation Guide

4.1 Precautions

Applicable materials: surfaces of ceramic, glass/epoxy resin, acrylic, PBT, ABS, PC, rigid PVC, and other materials.

Adhesion requirements: Clean the bonding surface, ensuring it is dry and free of dust.

Optimal adhesion temperature: 21~38°C

Note: For use in low-temperature environments, preheat the bonding surface slightly with a hairdryer before adhesion to increase tackiness, or bond at an appropriate temperature for more than half an hour before transferring to the low-temperature environment; After adhesion, press the device by hand for 1~2 seconds and repeat several times to ensure better bonding between the double-sided tape and the bonding surface.

If you have any further questions, please email us at info@meitrack.com and we will be glad to assist you.