## RISOON ZBtuyang01

# RISOON Smart Zigbee Soil Moisture and Temperature Sensor (Model ZBtuyang01) - Instruction Manual

Brand: RISOON | Model: ZBtuyang01

### INTRODUCTION

The RISOON Smart Zigbee Soil Moisture and Temperature Sensor is designed to help you monitor the health of your plants by providing accurate data on ambient temperature and soil moisture. This device utilizes a capacitive probe for reliable readings across various soil types, offering greater durability and a longer lifespan compared to traditional probes. It integrates with Zigbee gateways and smart home systems like Homey, Hubitat, SmartThings, and Home Assistant for remote monitoring and automated watering solutions.

Image: The RISOON Smart Zigbee Soil Moisture and Temperature Sensor, shown with its probe and the main unit. A smartphone displays the accompanying app interface with moisture and temperature readings.

## S<small>ETUP</small>

### 1. Battery Installation

The sensor requires 2 AAA alkaline batteries for operation. To install the batteries:

1. Carefully remove the back cover of the sensor unit.
2. Insert 2 AAA batteries, ensuring correct polarity.
3. Replace the back cover securely to ensure water resistance.

Image: A close-up view of the RISOON Smart Zigbee Soil Moisture and Temperature Sensor's battery compartment, showing the insertion of two AAA batteries.

## 2. App Installation and Device Pairing

This sensor requires a Zigbee gateway or a Home Assistant Zigbee2MQTT setup to function. It does not directly connect via Wi-Fi. Follow these steps to install the app and pair your device:

1. Download the recommended smart home app (e.g., Tuya Smart, Smart Life) from your device's app store.
2. Ensure your Zigbee gateway is powered on and connected to your network.
3. Open the app and navigate to the device addition section.
4. On the sensor, long-press the pairing button (located inside the battery compartment) for 6-12 seconds until a green LED blinks, indicating pairing mode.
5. In the app, search for nearby devices. Once detected, add the "Smart Soil Tester".
6. Follow any on-screen prompts to complete the pairing process.

Video: Demonstrates the unboxing, battery installation, and pairing process of the Zigbee soil sensor with a smartphone app. The video shows how to long-press the button for pairing and how the device appears in the app.

## 3. Physical Installation in Soil

Insert the sensor probe into the soil of your plant or garden bed. Ensure the probe is fully inserted up to the

"80mm standard line" for accurate readings. Avoid placing the sensor in overly rocky soil to prevent damage to the probe.
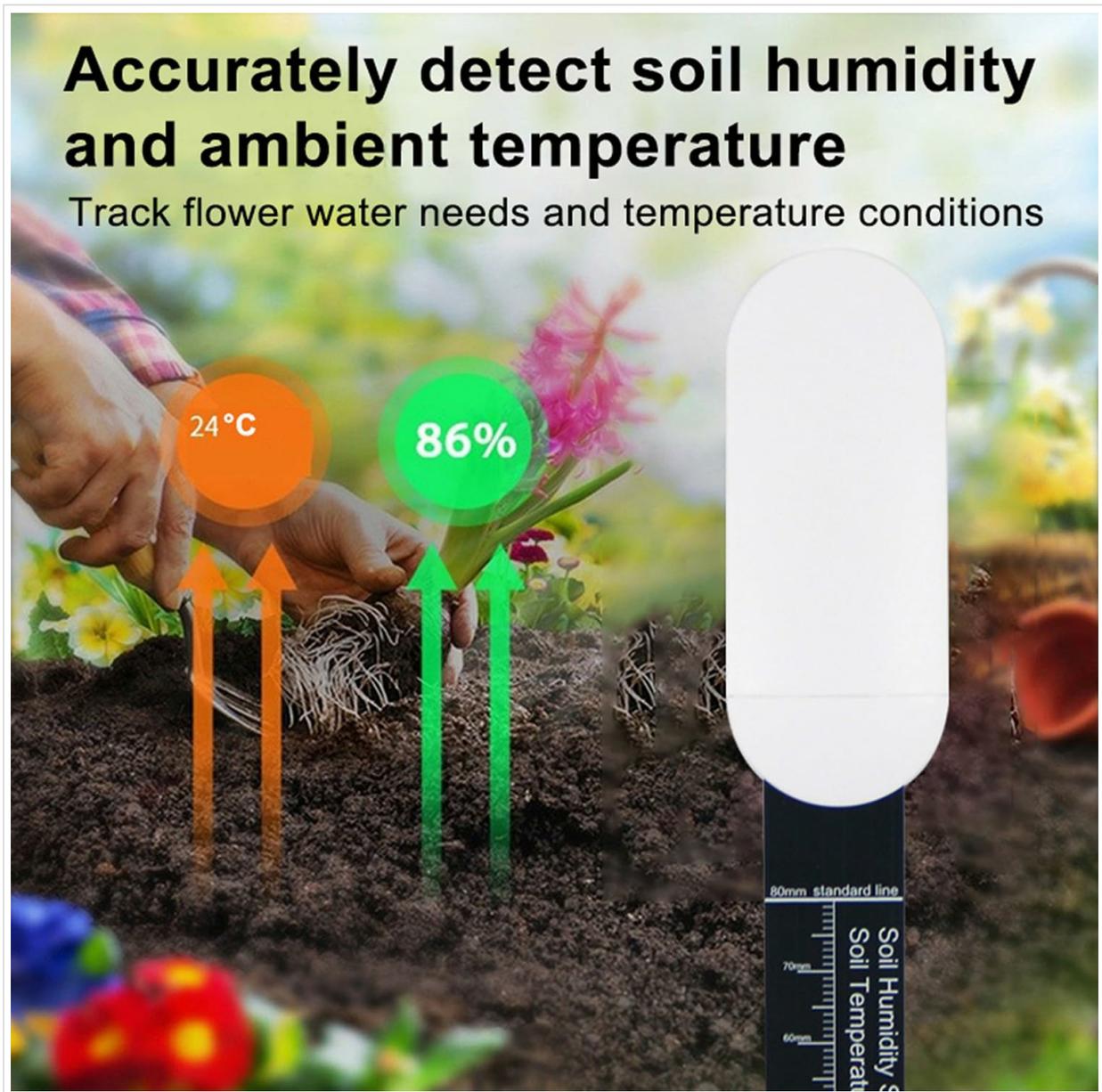


Image: The RISOON Smart Zigbee Soil Moisture and Temperature Sensor inserted into soil, demonstrating its use in a garden setting. The image highlights the temperature and humidity readings.

## OPERATING INSTRUCTIONS

### 1. Reading Data via App

Once paired, you can view real-time soil moisture and temperature data directly from the smart home app on your smartphone. The app typically displays current readings and historical data trends.
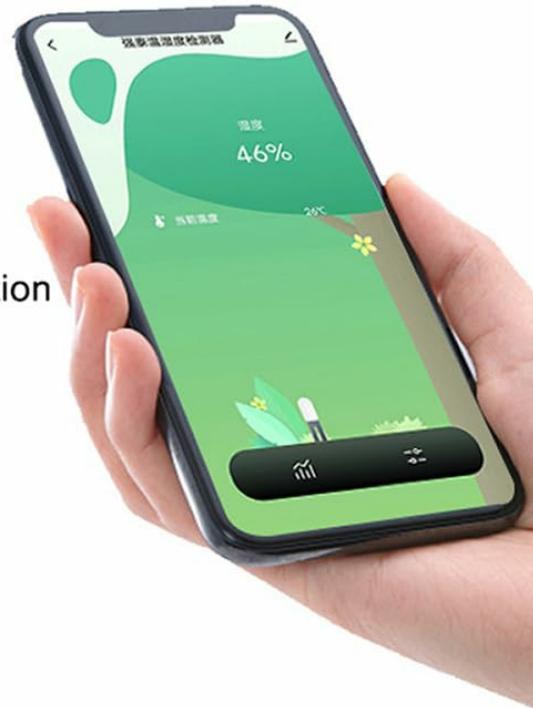
Image: A smartphone displaying the app interface for the RISOON Smart Zigbee Soil Moisture and Temperature Sensor, showing real-time data for soil moisture and temperature, along with historical curves.

## 2. Understanding Readings

- **Soil Moisture:** Readings indicate the relative humidity of the soil. A value of 100% suggests saturated soil, while 0% indicates very dry soil. Note that 0% on the sensor may correspond to a low but not absolute zero relative humidity in the soil.
- **Ambient Temperature:** Displays the temperature of the surrounding environment.

## 3. Multi-Scene Linkage and Automation

The sensor can be integrated with other smart home devices and systems to create automated watering schedules and multi-scene linkages. For example, you can set up rules to activate a smart watering timer when soil moisture drops below a certain threshold, ensuring your plants receive optimal care.



Image: An illustration showing the RISOON Smart Zigbee Soil Moisture and Temperature Sensor connected to a Tuya ZIGBEE gateway, which then links to the Tuya Smart APP and other Tuya devices for smart home automation.

## MAINTENANCE

### 1. Battery Replacement

The sensor is powered by 2 AAA batteries. When the battery level is low, you may receive an alert via the app. Replace batteries as needed by following the installation steps in the Setup section.

### 2. Probe Cleaning

Periodically clean the capacitive probe to ensure accurate readings. Gently wipe any soil or debris from the probe using a soft cloth. Avoid using abrasive materials that could scratch the probe surface.

### 3. Durability

The capacitive sensing probe is designed for enhanced durability and a longer lifespan compared to traditional probes, as it is less affected by soil salinity and pH. This makes it suitable for various gardening environments.

## TROUBLESHOOTING

- **No Data Reading:** Ensure the sensor is properly paired with your Zigbee gateway and that the gateway is online. The sensor must be used with a Zigbee gateway or Home Assistant Zigbee2MQTT; it cannot read data independently.

- **Connectivity Issues:** Zigbee signal range can be a factor. For indoor use, consider the placement of your Zigbee gateway relative to the sensor. If using Home Assistant, ensure you are using the Zigbee2MQTT integration, as the default ZHA Zigbee integration may not support this device.

- **Inaccurate Readings:** Verify the sensor probe is fully inserted into the soil up to the standard line. Ensure the probe is clean and free of debris. Capacitive sensors are generally less affected by soil salinity and pH, but extreme conditions might still influence readings.

- **Sensor Not Updating:** Some users have reported that the device may go into sleep mode after a few minutes. Try pressing the pairing button to wake it up or re-inserting the batteries to re-initiate pairing mode if updates are not occurring.

## SPECIFICATIONS

| Feature | Detail |
| --- | --- |
| Product Dimensions | 0.1 x 0.1 x 0.1 inches; 2.12 ounces |
| Item Model Number | ZBtuyang01 |
| Manufacturer | RISOON |
| First Available | April 22, 2025 |
| Connectivity | Zigbee (requires Zigbee gateway) |
| Power Source | 2 AAA batteries |

## WARRANTY AND SUPPORT

For warranty information, technical support, or further assistance, please refer to the product packaging or contact the manufacturer directly. Details regarding specific warranty periods and support channels are typically provided with your purchase documentation.