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ECOWITT WN34

ECOWITT WN34 Soil Temperature Sensor User Manual

Model: WN34

1. Introduction

The ECOWITT WN34 Soil Temperature Sensor is a digital, waterproof device designed to provide accurate and instant soil temperature information. It is suitable for various applications including gardens, farms, lawns, greenhouses, and both indoor and outdoor potted plants. This manual provides instructions for setting up, operating, and maintaining your WN34 sensor.

2. Product Overview

The WN34 sensor features an LCD display for real-time temperature readings and a durable 11.8-inch (30cm) stainless steel probe. It is designed for wireless transmission of data.

Figure 2.1: Front view of the ECOWITT WN34 Soil Temperature Sensor, showing the LCD display and probe.

Figure 2.2: Side view of the ECOWITT WN34 Soil Temperature Sensor, highlighting the waterproof casing.

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Figure 2.3: Angled view of the ECOWITT WN34 Soil Temperature Sensor, showing the probe attachment point.

3. Specifications

- **Power:** 1 x 1.5V AA battery (not included)
- **Sensor Type:** Epoxy Sealed Thermistor of NTC
- **Frequency:** 433 / 868 / 915 MHz (location dependent)
- **Wireless Transmitting Range:** 100 meters (300 feet) in open areas
- **Sensor Reporting Interval:** 77 seconds
- **Probe Sensor Length:** 30 cm (11.81 inches)
- **Battery Life:** Minimum 12 months
- **Sensing Temperature Range:** -40°C to 60°C (-40°F to 140°F)
- **Waterproof Rating:** IP65
- **Supported Channels:** Up to 8 channels (additional sensors sold separately)

4. Setup and Installation

4.1 Battery Installation

1. Locate the battery compartment on the sensor unit.
2. Open the battery compartment cover.
3. Insert one 1.5V AA battery, ensuring correct polarity (+/-).
4. Close the battery compartment cover securely to maintain the IP65 waterproof rating.

4.2 Probe Insertion

Carefully insert the stainless steel probe into the soil at the desired location. Ensure the probe is inserted vertically and to a depth that allows for accurate temperature measurement of the root zone.

- **Important:** Do not push the probe into the soil with excessive force by holding the main unit body. Hold the probe itself to insert it. The attachment point between the probe and the main body is delicate and can withstand a maximum force of 5kg.
- Avoid inserting the sensor into corrosive liquids or hard rock to prevent damage.

5. Operation

5.1 Local Display

The WN34 sensor features an LCD display that shows the current soil temperature in real-time. The display is designed for easy readability.

5.2 Pairing with a Gateway (Optional)

For advanced features and remote monitoring, the WN34 sensor can be paired with an ECOWITT GW1000 Wi-Fi Gateway or a compatible Weather Station Console (e.g., HP2551/HP3500/HP3501). This enables the following functionalities:

- View temperature readings on the Live Data page of the WS View app (requires the gateway and your phone to be on the same Wi-Fi network).
- Support for up to 8 channels, allowing monitoring of multiple sensors. Channel names can be edited within the

app.

- Battery level information displayed on the WS View App.

5.3 Remote Monitoring and Alerts

When data is uploaded to the Ecowitt Weather Server (ecowitt.net), you can:

- View current temperature data, historical records, and graphs on the website.
- Receive email alerts from the server based on custom thresholds.
- Monitor remotely using a smartphone, laptop, or computer by visiting the website.

6. Maintenance

- **Battery Replacement:** Replace the AA battery when the battery level indicator on the WS View App (if paired) or the local display shows low power.
- **Cleaning:** Periodically clean the probe with a soft cloth to remove soil buildup, which can affect accuracy.
- **Storage:** When not in use for extended periods, remove the battery and store the sensor in a dry, cool place.

7. Troubleshooting

Issue	Possible Cause	Solution
No display/Power off	Dead or incorrectly installed battery.	Check battery polarity or replace with a new 1.5V AA battery.
Inaccurate readings	Probe is dirty or damaged; improper insertion depth.	Clean the probe. Ensure the probe is inserted deep enough into the soil.
No data on WS View App	Sensor not paired with gateway; gateway offline; Wi-Fi issues.	Ensure sensor is paired. Check gateway's internet connection. Verify phone is on the same Wi-Fi network as the gateway.
Short wireless range	Obstructions (walls, metal); interference.	Relocate sensor or gateway to minimize obstructions. Avoid strong electromagnetic interference.

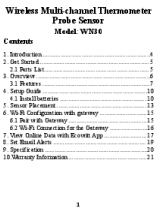
8. Warranty and Support

ECOWITT provides a one-year after-sales service for the WN34 Soil Temperature Sensor. If you encounter any issues or have questions, please contact ECOWITT customer support for assistance. They are committed to providing a satisfactory solution.
For further support and resources, please visit the official ECOWITT website or refer to the contact information provided with your product packaging.

Related Documents - WN34

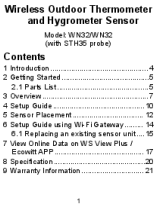
[Ecowitt WS2910 Weather Station Console Manual - Setup & Operation Guide]

Comprehensive user manual for the Ecowitt WS2910 Weather Station Console. This guide details setup, features, Wi-Fi connectivity, app integration, sensor management, troubleshooting, and specifications for accurate weather monitoring.



[Ecowitt WN30 Wireless Multi-channel Thermometer Probe Sensor User Manual]

User manual for the Ecowitt WN30 Wireless Multi-channel Thermometer Probe Sensor, covering features, setup, specifications, and warranty information.

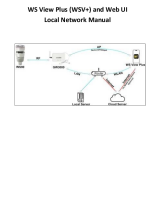


[Ecowitt WN32 Wireless Outdoor Thermometer and Hygrometer Sensor User Manual]

Comprehensive user manual for the Ecowitt WN32 Wireless Outdoor Thermometer and Hygrometer Sensor, covering setup, placement, specifications, and warranty information.

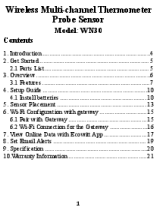
[Ecowitt WN34S Soil Temperature Sensor User Manual]

User manual for the Ecowitt WN34S Soil Temperature Sensor. Covers system introduction, setup guide, features, specifications, Wi-Fi connection to gateways/consoles, cloud upload, remote access via Ecowitt App, warranty, and FCC/IC compliance. Learn how to install and use your sensor.



[WS View Plus (WSV+) and Web UI Local Network Manual]

Comprehensive guide to setting up and managing Ecowitt weather stations using the WS View Plus mobile app and Web UI for local network configurations, data uploading, and device settings.



[Ecowitt WN30 Wireless Multi-channel Thermometer Probe Sensor User Manual]

Comprehensive user manual for the Ecowitt WN30 wireless multi-channel thermometer probe sensor, covering introduction, setup, features, Wi-Fi configuration, data viewing with the Ecowitt App, email alerts, specifications, and warranty information.