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> Moray ME201WZ ZigBee Tuya Smart Life Mobile APP Wireless WiFi High Accuracy Smart Home Remote IP65 Waterproof Ultrasonic Oil Fuel Water Tank Level Sensor Monitor Automatic Alarm Liquid Level Gauge User Manual

MORAYELEC ME201WZ

MORAYELEC ME201WZ Ultrasonic Tank Level Sensor User Manual

Model: ME201WZ

1. PRODUCT OVERVIEW

The MORAYELEC ME201WZ is a high-accuracy ultrasonic liquid level sensor designed for remote monitoring of oil, fuel, and water tanks. It integrates with ZigBee and Tuya Smart Life mobile applications, providing real-time data and automatic alerts. Its IP65 waterproof rating ensures reliable performance in various environmental conditions.



Image 1.1: The ME201WZ Ultrasonic Tank Level Sensor, accompanied by its power adapter and a ZigBee gateway (note: ZigBee gateway is sold separately).

2. PRODUCT COMPONENTS

The standard package for the ME201WZ sensor includes the following items:

- ME201WZ Ultrasonic Level Sensor
- Power Adapter (Input: 100-240V AC, Output: 5V DC)
- Mounting Nut for installation
- User Manual

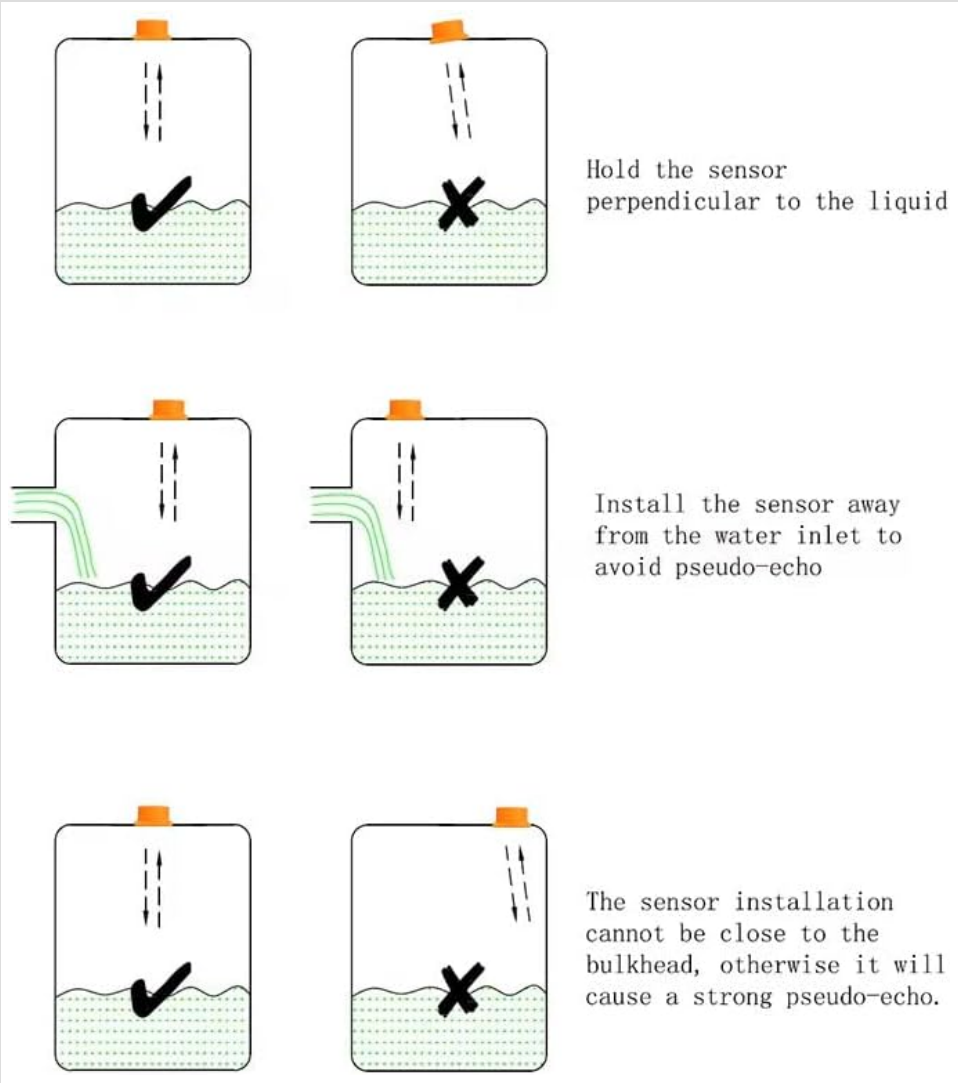


Image 2.1: Contents of the ME201WZ product box, showing the sensor, power adapter, and mounting hardware.

3. SPECIFICATIONS

Feature	Specification
Model Number	ME201WZ
Measuring Distance	10 cm to 4 meters (4 to 157 inches)
Power Input	5V DC (via 100-240V AC adapter)
Connectivity	ZigBee, 2.4G WiFi (requires ZigBee gateway)
Control Method	App, Remote

Feature	Specification
Waterproof Rating	IP65
Operating Temperature	-10°C to +70°C
Product Dimensions	6.5 x 6.5 x 2.5 inches
Item Weight	9.6 ounces

4. SETUP AND INSTALLATION

Proper installation is crucial for accurate readings. Follow these guidelines:

1. **Sensor Placement:** Install the sensor on the top of the tank. Ensure the sensor is held perpendicular to the liquid surface.
2. **Minimum Distance:** The sensor must be at least 10 cm (4 inches) from the top of the maximum liquid level to ensure proper operation.
3. **Avoid Obstacles:** Ensure there are no obstacles in the reflective area of the sensor. Install the sensor away from the water inlet to avoid pseudo-echoes caused by incoming liquid. The sensor installation cannot be close to the bulkhead, as this may also cause strong pseudo-echoes.
4. **Mounting:** Use the provided nut to secure the sensor to the tank.
5. **Power Connection:** Connect the sensor to the provided 5V DC power adapter.
6. **Network Connection:** The sensor requires a 2.4G WiFi signal and connects via a ZigBee gateway (purchased separately). Ensure your ZigBee gateway is properly set up and connected to your home router.



Image 4.1: Diagram showing the sensor's beam angle and recommended reflection area within the tank.



Image 4.2: Visual guide for correct sensor installation, emphasizing perpendicular alignment, avoiding water inlets, and maintaining distance from bulkheads.

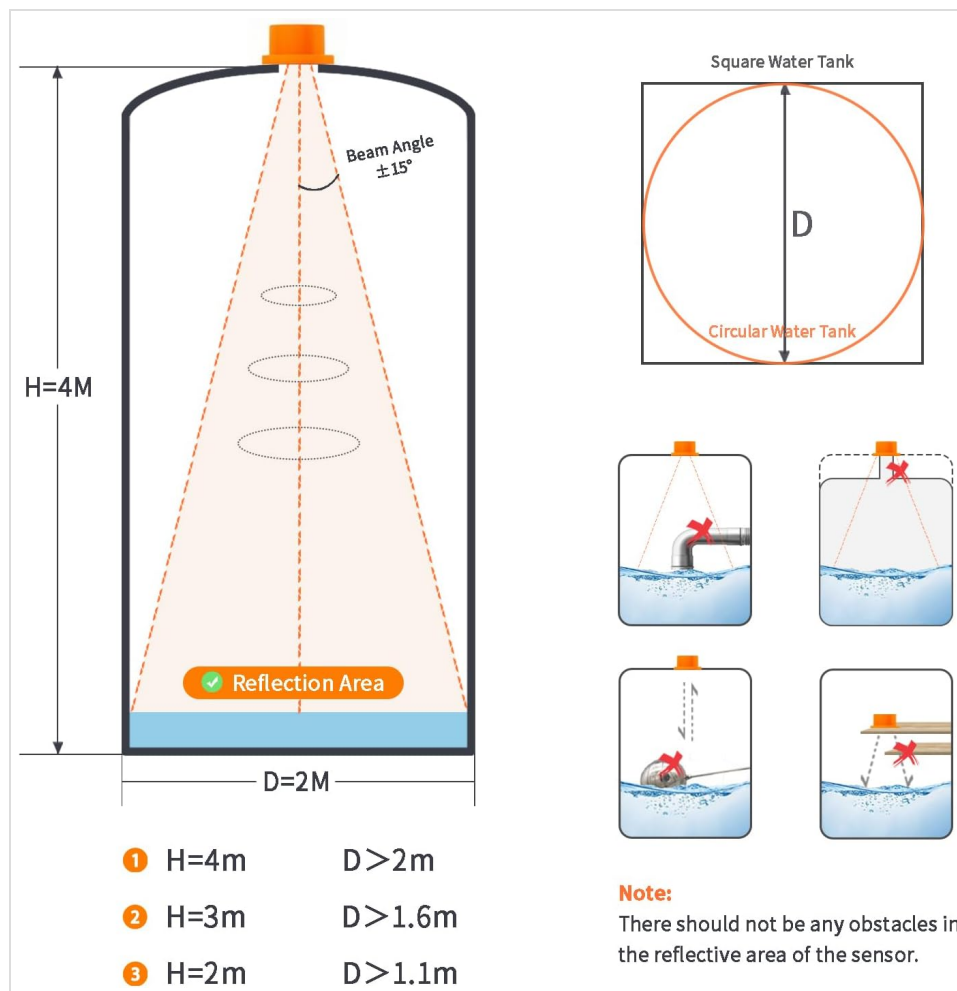


Image 4.3: Examples of the ME201WZ sensor installed on various tank types, including underground, outdoor, and solar water tanks.

5. OPERATING INSTRUCTIONS

The ME201WZ sensor operates in conjunction with the Tuya Smart Life mobile application, allowing for remote monitoring and control.

1. **App Download and Setup:** Download the Tuya Smart Life app from your smartphone's app store. Register an account and follow the in-app instructions to add the ME201WZ sensor.
2. **Remote Monitoring:** Once connected, you can check your tank's liquid level from your smartphone anytime, anywhere. The app displays the liquid level ratio, liquid level depth, and current status (Normal, Full, Low).
3. **Alerts:** The system provides full and low-level alerts. You can set custom alarm levels within the app to receive message notifications when the liquid reaches your predefined thresholds.
4. **Multi-Tank Monitoring:** The Tuya Smart Life app supports monitoring multiple sensors. You can connect and manage up to 10 sensors from a single app interface, making it easy to monitor several tanks simultaneously.

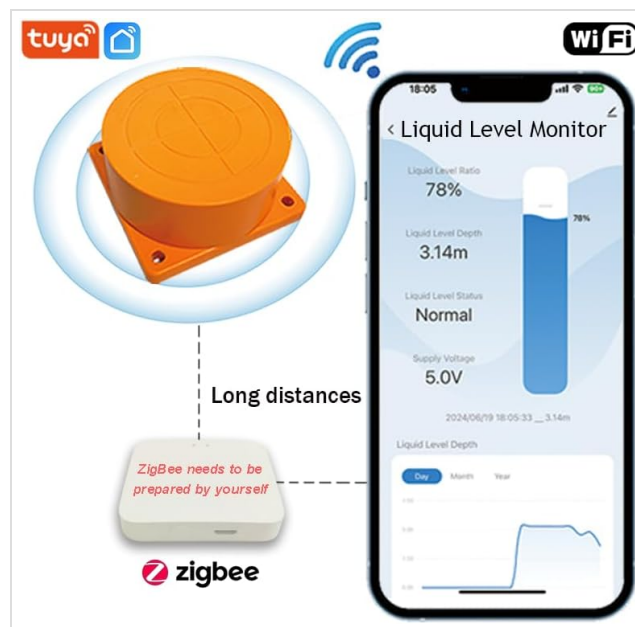


Image 5.1: Screenshot of the mobile application interface displaying liquid level ratio, depth, status, and battery level.

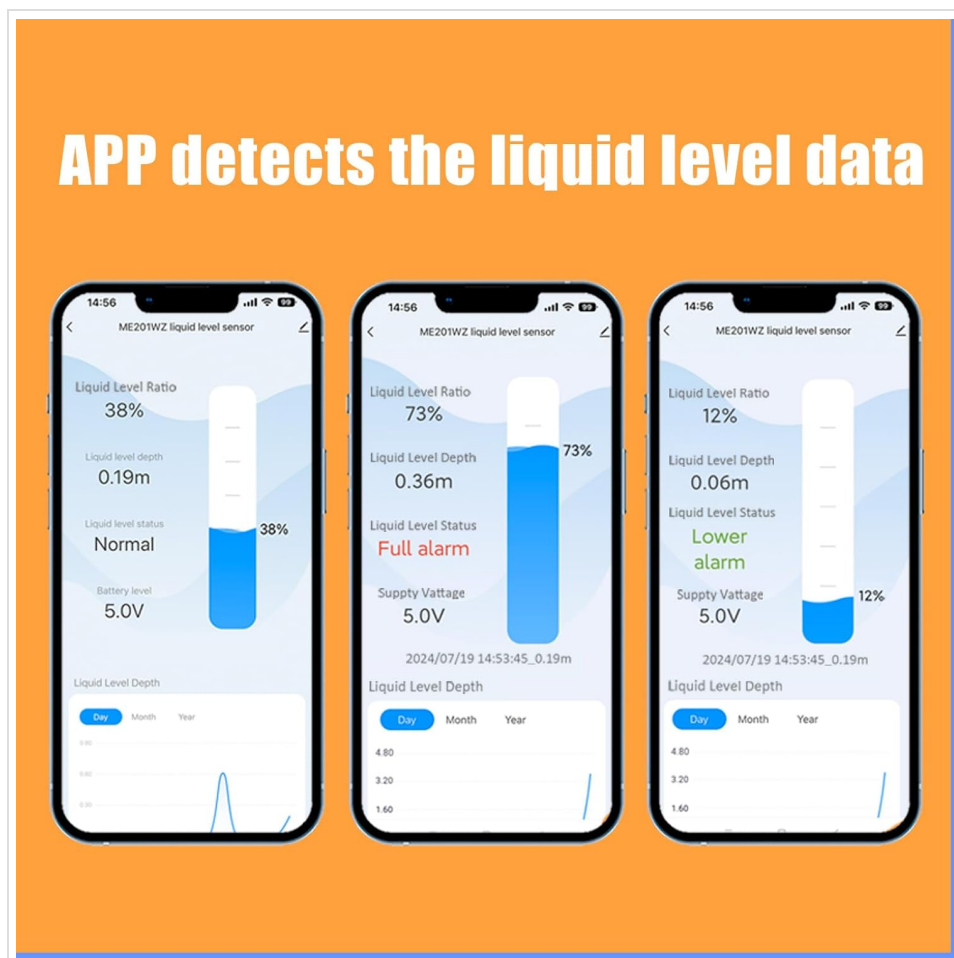


Image 5.2: The app interface demonstrating different liquid level statuses: Normal, Full alarm, and Lower alarm, with corresponding visual indicators.



Image 5.3: Illustration of the sensor's remote monitoring capability, showing data transmission from the tank sensor to the home network and then to the mobile app.

6. MAINTENANCE

The ME201WZ sensor is designed for low maintenance. To ensure optimal performance and longevity:

- **Regular Inspection:** Periodically check the sensor for any physical damage or debris accumulation on its surface.
- **Cleaning:** If necessary, gently wipe the sensor's surface with a soft, damp cloth. Do not use abrasive cleaners or solvents.
- **Power Supply:** Ensure the power adapter is securely connected and the power supply is stable.
- **Environmental Conditions:** While IP65 rated, avoid prolonged exposure to extreme conditions beyond the specified operating temperature range (-10°C to +70°C).

7. TROUBLESHOOTING

If you encounter issues with your ME201WZ sensor, refer to the following common problems and solutions:

- **No Readings or Incorrect Readings (e.g., 0 inches reported):**
 - **Check Sensor Placement:** Ensure the sensor is installed at least 10 cm (4 inches) from the maximum liquid level. If the liquid level is too close to the sensor, it may report 0 or inaccurate readings.
 - **Verify Perpendicularity:** Confirm the sensor is held perpendicular to the liquid surface.
 - **Clear Obstacles:** Check for any obstructions in the sensor's beam path, such as pipes, inlets, or tank bulkheads, which can cause pseudo-echoes and interfere with readings.
 - **Power Supply:** Ensure the sensor is receiving stable power.

- **No WiFi Connection / App Offline:**

- **Router Proximity:** The sensor requires a 2.4G WiFi signal. Ensure the ZigBee gateway is within 30 meters (without obstacles) of your WiFi router.
- **ZigBee Gateway Status:** Verify that your ZigBee gateway is powered on and properly connected to your home network.
- **App Connection:** Restart the Tuya Smart Life app and ensure your smartphone has a stable internet connection.

- **Inconsistent Readings:**

- **Liquid Surface Stability:** Rapid movement or turbulence of the liquid surface can affect readings.
- **Environmental Factors:** Extreme temperature fluctuations outside the operating range can impact sensor performance.

8. WARRANTY AND SUPPORT

MORAYELEC provides a **1-year warranty** for the ME201WZ Ultrasonic Tank Level Sensor. With over 20 years of experience in liquid detection solutions, MORAYELEC is committed to providing long-term service and support for its products.

For technical support, warranty claims, or further assistance, please refer to the contact information provided on the MORAYELEC official website or your purchase documentation.

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Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question