

EPTTECH Smart TLC 2206

EPTTECH Smart TLC2206 WiFi Liquid Tank Level Monitor

Model: Smart TLC 2206

1. INTRODUCTION

The EPTTECH Smart TLC2206 is an intelligent WiFi-enabled ultrasonic liquid level sensor designed for remote monitoring of water, oil, and fuel tanks. This device allows users to track liquid levels from a smartphone application, providing real-time data and alerts for various applications.

Key Features:

- **Long Measuring Distance:** Capable of measuring distances from 10 cm to 3.0 meters (4 to 118 inches) from the sensor.
- **Remote Monitoring:** Check tank levels anytime, anywhere via a smartphone application.
- **Alerts:** Receive message alerts for full or low liquid levels, with customizable alarm settings.
- **Multi-Tank Monitoring:** One application can monitor up to 50 sensors simultaneously.
- **Durability:** IP67 waterproof rating, with CE, RoHS, and Reach certifications.
- **Wide Operating Temperature:** Functions reliably in temperatures ranging from -10°C to +70°C.

Applicable Scenarios:

This sensor is suitable for a variety of liquid storage applications, including:

- Acid Alkali Tanks
- Water Tanks
- Heaters
- Reservoirs
- Industrial Liquid Storage
- General Liquid Tanks



Image: Examples of tanks where the liquid level monitor can be used, demonstrating its versatility across different liquid storage types.

2. SAFETY INFORMATION

Please read all safety instructions carefully before installation and operation to prevent injury or damage to the device.

- **Power Supply:** Use only the provided power adapter (Input: 100-240V AC, Output: 9V DC). Ensure the power source matches the adapter's requirements.
- **Installation:** Follow the drilling and threading installation instructions precisely. Improper installation may lead to device malfunction or tank damage.
- **Environment:** The device is designed for an operating temperature range of -10°C to +70°C. Avoid exposing the sensor to temperatures outside this range.
- **Water Exposure:** While rated IP67 waterproof, ensure proper sealing during installation to prevent water intrusion, especially in outdoor or high-humidity environments.
- **Maintenance:** Do not attempt to disassemble or repair the device yourself. Refer to the troubleshooting section or contact customer support for assistance.
- **Chemicals:** When used with chemical tanks, ensure the tank material and sensor are compatible with the stored liquid to prevent corrosion or damage.

3. PACKAGE CONTENTS

Verify that all items are present in the package:

- 1 x Smart TLC2206 Liquid Level Sensor
- 1 x Power Adapter (9V DC)



Image: The main components included in the product package.

4. SPECIFICATIONS

Specification	Value
Model Number	Smart TLC 2206
Brand	EPTTECH
Sensor Technology	Ultrasonic Sensor
Maximum Range	3 Meters (118 inches)
Minimum Range	0.1 Meters (4 inches)
Voltage	100 Volts (DC)
Power Source	Corded Electric
Control Method	App (Smartphone)
Mounting Type	Drilling and Threading Installation
Item Weight	10.5 ounces
Product Dimensions	3.74"L x 3.74"W x 2.8"H (9.5 cm x 9.5 cm x 7.1 cm)

Specification	Value
Material	Copper
Color	White
Batteries Required?	No
Waterproof Rating	IP67
Operating Temperature	-10°C to +70°C

Dimensional Drawing:

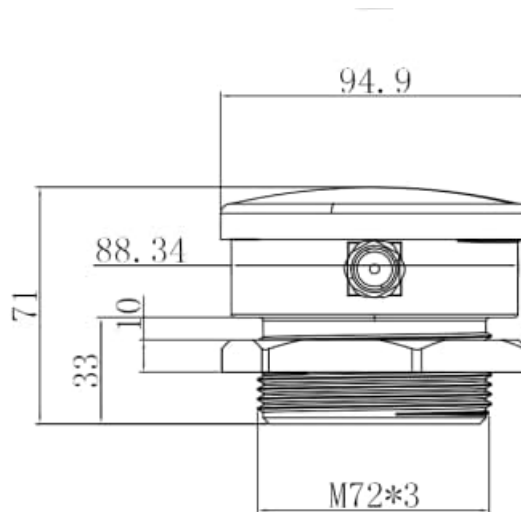


Image: Side view dimensions of the sensor (measurements in mm).



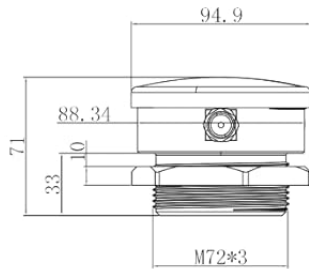
Image: Top view of the sensor, showing transducer placement.

5. SETUP AND INSTALLATION

Follow these steps to install your Smart TLC2206 liquid level monitor:

5.1 App Download and Setup

1. Download the "Smart Life" or "Tuya Smart" application from your smartphone's app store (available for iOS and Android).
2. Alternatively, scan the QR code below to download the app:



Scan this QR code to download the Smart Life app.

For direct download, visit: <https://smartapp.tuya.com/smartlife>

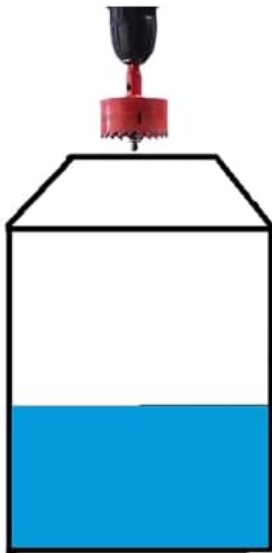
3. Register or log in to your account within the app.
4. Add the device by following the in-app instructions for adding a new sensor. Ensure your phone is connected to a 2.4GHz Wi-Fi network during pairing.

5.2 Physical Installation

The sensor is designed for drilling and threading installation on the top of the tank.

1. **Prepare the Tank:** Choose a location on the top of your tank that is flat and clear of obstructions. Ensure the sensor will have a clear line of sight to the liquid surface.
2. **Drill the Hole:** Using a hole saw, drill a hole with a diameter of **72 mm (approximately 2.83 inches)** at the chosen location.
3. **Insert and Secure the Sensor:** Insert the sensor into the drilled hole. Use the provided nut to screw and secure the sensor tightly from underneath the tank lid or from the inside of the tank.
4. **Connect Power:** Connect the power adapter to the sensor and plug it into a 100-240V AC power outlet. The sensor requires continuous power and does not use batteries.

1) Dig a hole with diameter of 72mm



2) Screw the sensor inside the hole



Image: Step 1 - Drilling the 72mm hole.

Important Installation Considerations:

- Ensure the sensor is installed vertically and directly above the liquid surface.
- Avoid installing the sensor where water inflow or outflow might directly interfere with the ultrasonic signal.
- The sensor should be positioned to avoid internal tank obstructions that could block the signal.

1) Dig a hole with diameter of 72mm

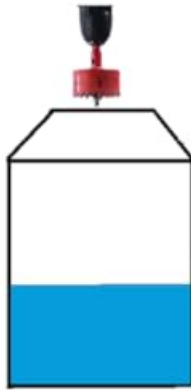


Image: Correct and incorrect sensor placement for optimal signal.

6. OPERATING INSTRUCTIONS

Once installed and connected to the app, you can begin monitoring your liquid levels.

6.1 App Interface and Monitoring

- Open the Smart Life/Tuya Smart app. Your connected sensor will display the current liquid level.
- The app displays the liquid level as a percentage and in meters (Unit: M).
- The graph table updates the average liquid level every half hour. It is not real-time. To refresh the data, pull down on the app's homepage.



Image: Sensor, power adapter, and app interface showing liquid level data.

Track And Monitor Remote Monitoring of Liquid Level Changes

-  Real-time liquid level
-  Intelligent scene
-  Set liquid level
-  Alarms and notifications



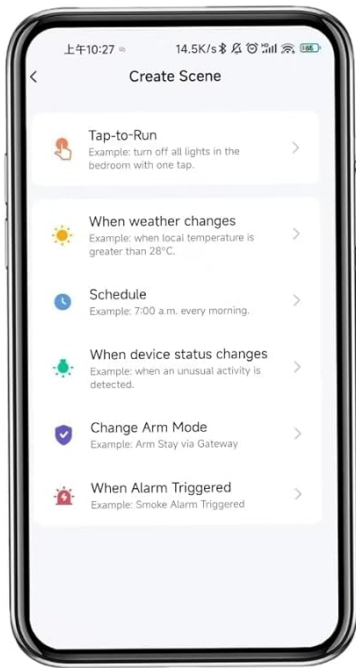
Image: App features for tracking and monitoring liquid level changes.

6.2 Data Settings and Calibration

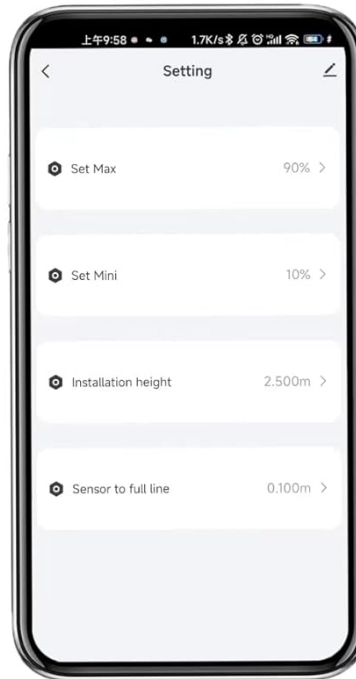
To ensure accurate readings, it is crucial to correctly set the data within the app:

- **Set Max/Min Levels:** Configure the maximum and minimum liquid levels according to your tank's capacity.
- **Installation Height:** Input the precise height from the sensor to the bottom of the tank.
- **Sensor to Full Line:** Specify the distance from the sensor to the maximum fill line of the tank.

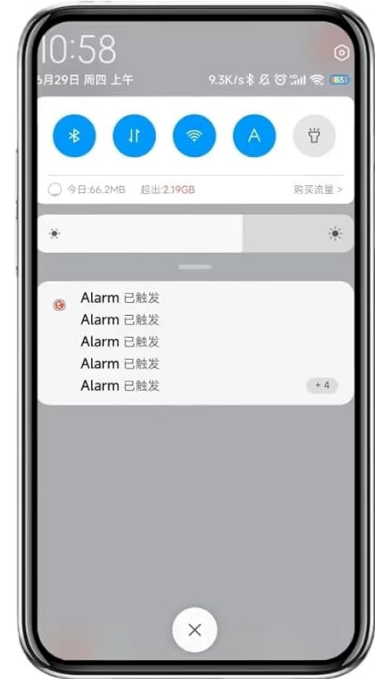
Multifunctional Monitoring



Create Scene



Data Setting



Message reminder

Image: App screens for creating scenes, data settings, and message reminders.

6.3 Alerts and Notifications

The app allows you to set up custom alerts:

- You will receive message alerts when the liquid level reaches your set full or low thresholds.
- Customize alarm levels based on specific liquid heights or percentages.
- The app provides pop-up reminders. Note that phone calls or SMS reminders are a separate, charged function of the Tuya platform.

Free Setting of Alarm Height

Alarm according to water level height
/percentage of water level
maximum water level/minimum water level

Sensor to full line

Installation height

Liquid level status

Liquid level depth

Liquid level ratio

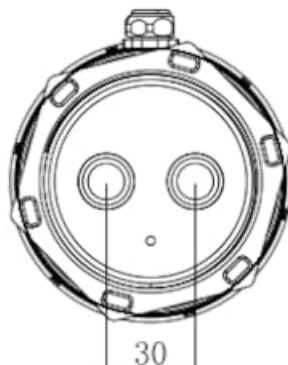


Image: App interface for setting alarm heights and notification preferences.

6.4 Multi-Tank Monitoring

The Smart Life/Tuya Smart app supports monitoring multiple tanks:

- You can connect and monitor as many as 50 sensors within a single app.
- Each sensor will appear as a separate entry, allowing you to easily switch between tank views.



7. MAINTENANCE

The Smart TLC2206 sensor requires minimal maintenance. However, regular checks can ensure optimal performance:

- **Sensor Surface:** Periodically inspect the sensor's surface for any buildup of dirt, debris, or condensation. Gently wipe the surface with a soft, damp cloth if necessary. Avoid using abrasive cleaners or solvents.
- **Power Connection:** Ensure the power adapter and cable are securely connected and free from damage.
- **Environmental Conditions:** While the sensor is designed for various weather conditions, extreme temperature fluctuations or prolonged exposure to harsh elements might affect its lifespan.
- **Sealing:** If the sensor is installed outdoors or in a wet environment, periodically check the seal around the installation point to ensure it remains watertight.

8. TROUBLESHOOTING

If you encounter issues with your Smart TLC2206 sensor, refer to the following common problems and solutions:

8.1 Inaccurate or Erratic Readings

- **Incorrect Data Settings:** Ensure that the "Installation height" and "Sensor to full line" values in the app's data settings are accurately configured according to your tank's dimensions. Incorrect settings will lead to incorrect percentage displays.
- **Condensation Buildup:** Condensation on the sensor's surface can cause inaccurate readings. Clean the sensor surface gently.
- **Signal Obstruction:** The ultrasonic signal can be affected by obstructions or improper sensor alignment.
 - **Flat Object Not Facing Sensor:** Ensure the liquid surface is relatively flat and directly below the sensor.
 - **Object Too Small:** The sensor may struggle with very narrow tanks or small liquid surfaces.
 - **Object Too Soft:** Certain materials or highly aerated liquids might absorb the ultrasonic signal, leading to errors.



Image: Common situations causing sensor reading errors.

8.2 Connectivity Issues

- **Weak WiFi Signal:** Ensure the sensor is within range of your 2.4GHz WiFi router. The WiFi range is approximately 30m (98 feet) without obstacles. A weak signal can cause delayed messages or connection

drops.

- **App Not Refreshing:** If the graph table or liquid level is not updating, return to the app homepage and pull down to refresh the data.

8.3 Waterproofing Concerns

- While the product has an IP67 waterproof rating, some users have reported water intrusion issues. Ensure the installation nut is screwed down tightly and consider adding an additional sealant (e.g., silicone) around the sensor's base if exposed to heavy rain or constant moisture.
- If the product has been flooded, contact customer support for after-sales service.

8.4 General Questions

- **Google Assistant/Alexa Compatibility:** This product is **not** compatible with Google Assistant or Amazon Alexa.
- **Unit of Display:** The app displays liquid level in meters (M) and percentages. It does not display in feet or inches.

9. WARRANTY AND SUPPORT

The EPTTECH Smart TLC2206 Liquid Tank Level Monitor typically comes with a 1-year warranty from the date of purchase. For any after-sales problems, technical assistance, or warranty claims, please contact EPTTECH customer support.

You can usually find contact information for customer support through the seller's page on the platform where you purchased the product or by visiting the official EPTTECH website.

When contacting support, please provide your product model number (Smart TLC 2206), purchase date, and a detailed description of the issue.