

Oumefar TL-136

Oumefar TL-136 Submersible Liquid Level Transmitter

USER MANUAL

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the Oumefar TL-136 Submersible Liquid Level Transmitter. This device is designed for accurate and reliable measurement of liquid levels in various applications. Please read this manual thoroughly before using the product to ensure correct operation and to prevent damage.

2. Safety Information

- Ensure the power supply is disconnected before installation or maintenance.
- The device operates on 24V DC. Verify the power source matches the specified voltage.
- Do not use the transmitter with liquids that corrode 304 stainless steel.
- Handle the cable carefully to avoid damage to the air guide tube inside.
- Installation should be performed by qualified personnel.

3. Product Overview and Features

The Oumefar TL-136 is a high-precision submersible liquid level transmitter. It features robust construction and advanced technology for stable and accurate liquid level detection.



Image: The Oumefar TL-136 Liquid Level Transmitter shown in an industrial environment, highlighting its application in tanks or reservoirs.

Key Features:

- **Accurate Monitoring:** Utilizes high-precision diffused silicon for precise water level monitoring.
- **Stable Output:** Incorporates a fully digital conditioning circuit for a stable 4-20mA signal output.
- **Reliability:** Features IP68 multi-layer waterproof protection for safe and reliable operation.
- **Unique Design:** Features a 45-degree anti-shock oblique angle and a removable anti-blocking design to prevent clogging.
- **Versatile Application:** Suitable for water, oil, and other non-corrosive liquids.



IP68 multilayer waterproof protection

45 degree bevel protection

Removable anti-blocking designed

All digital conditioning circuit, 4-20mA signal output is more stable

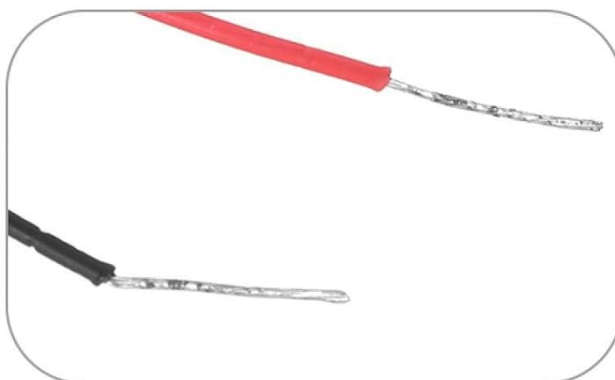


Image: A detailed view of the TL-136 transmitter, illustrating its IP68 multilayer waterproof protection, 45-degree bevel protection, removable anti-blocking design, and all-digital conditioning circuit for stable 4-20mA signal output.

4. Specifications

Parameter	Value
Item Type	Liquid Level Sensor
Tested Medium	Water, oil, etc. (liquids that do not corrode stainless steel)
Air Guide Cable Length	5 meters
Measurement Range	0-1m / 0-2m / 0-3m / 0-4m / 0-5m (optional)
Measurement Accuracy	0.2% FS - 0.5% FS (conventional)
Output Signal	4-20 mA

Parameter	Value
Supply Voltage	24V DC
Medium Temperature	-40 to 70 °C
Ambient Temperature	-40 to 80 °C
Temperature Compensation	-10 to 70 °C
Protection Level	IP68
Long-term Stability	±0.2% FS/year
Material	304 Stainless Steel
Product Dimensions (L x W x H)	1 x 1 x 1 cm
Product Weight	616.8 grams
Manufacturer Reference	Oumefarws6ngkia49354-13

5. Setup

- Proper installation is crucial for accurate measurement. Follow these steps for setting up your liquid level transmitter:
- 1. Placement:** Submerge the transmitter into the liquid to be measured. Ensure the sensor tip is fully immersed and positioned vertically for optimal accuracy.
 - 2. Cable Management:** Secure the air guide cable to prevent movement or damage. The cable contains a vent tube that must remain open to the atmosphere for accurate pressure readings. Do not kink or block this cable.
 - 3. Wiring:** Connect the transmitter to a 24V DC power supply and your measurement system. The transmitter provides a 4-20mA output signal. Refer to the wiring diagram below.

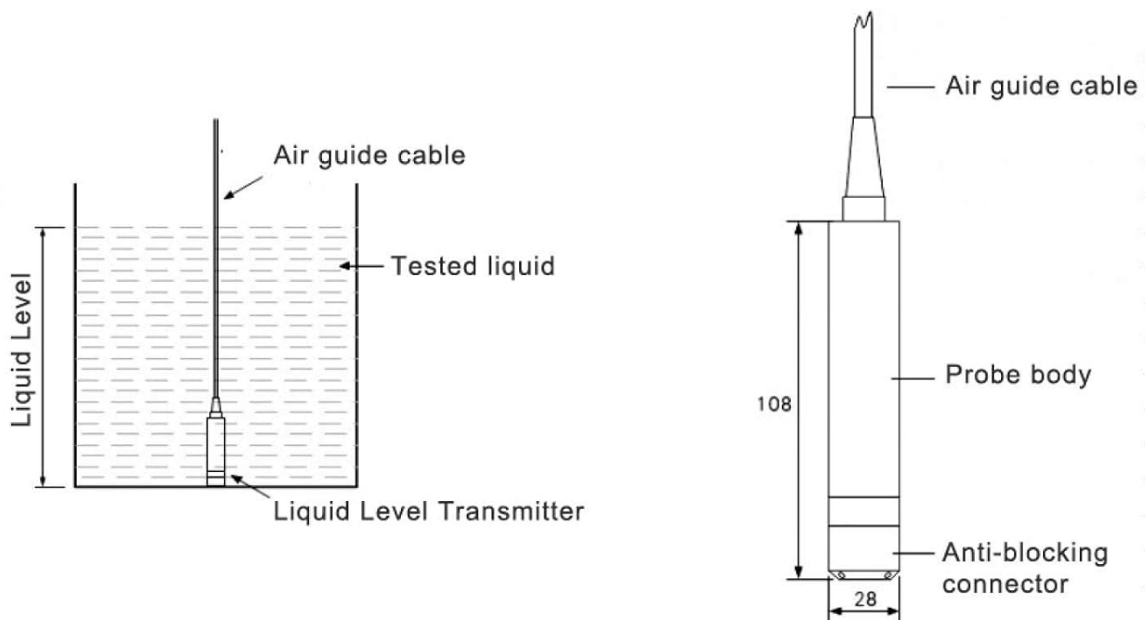


Image: An illustration demonstrating the correct installation of the liquid level transmitter, showing it submerged in a tested liquid with the air guide cable extending upwards.

Wiring Diagram:

The transmitter typically has two wires for power and signal output. Connect as follows:

- **Red Wire:** Connect to 24V DC positive (+)
- **Black Wire:** Connect to 24V DC negative (-) and signal input



Image: A close-up view of the transmitter's exposed red and black wires, ready for electrical connection.

6. Operating Instructions

Once installed and powered, the TL-136 transmitter will continuously measure the liquid level and output a corresponding 4-20mA signal. This signal can be read by a PLC, display meter, or other compatible control system.

- **Signal Interpretation:** A 4mA output typically corresponds to the minimum measured level (e.g., 0 meters), and a 20mA output corresponds to the maximum measured level (e.g., 5 meters, depending on the model variant).
- **Monitoring:** Continuously monitor the output signal to track liquid level changes.

7. Maintenance

The Oumefar TL-136 is designed for low maintenance. However, periodic checks can ensure long-term reliability:

- **Cleaning:** Periodically inspect the sensor tip for any buildup or debris. Clean gently with a soft cloth if necessary. Ensure the anti-blocking connector is clear.
- **Cable Inspection:** Check the air guide cable for any signs of wear, cuts, or kinks that could affect performance.

- **Connection Check:** Verify that all electrical connections remain secure and free from corrosion.
- **Environmental Conditions:** Ensure the operating environment remains within the specified temperature ranges.

8. Troubleshooting

If you encounter issues with your liquid level transmitter, consider the following:

- **No Output Signal:**
 - Check power supply: Ensure 24V DC is correctly applied.
 - Verify wiring: Confirm red and black wires are connected correctly.
 - Inspect cable: Look for any damage to the cable or internal wires.
- **Inaccurate Readings:**
 - Check sensor tip: Ensure it is clean and free from obstructions.
 - Verify air guide tube: Make sure the vent tube in the cable is not blocked.
 - Confirm liquid compatibility: Ensure the measured liquid does not corrode stainless steel.
 - Check for proper submersion: The sensor must be fully and correctly submerged.
- **Unstable Output:**
 - Check for electrical interference: Ensure the wiring is shielded and away from strong electromagnetic fields.
 - Verify power supply stability: Unstable power can lead to unstable readings.

9. Package Contents

- 1 x Oumefar TL-136 Liquid Level Transmitter

10. Warranty and Support

For warranty information or technical support, please refer to the documentation provided at the time of purchase or contact Oumefar customer service. Keep your purchase receipt for warranty claims.