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› HiLetgo Liquid Level Controller Sensor Module (Model 3-01-1205) User Manual

HiLetgo 3-01-1205

HiLetgo Liquid Level Controller Sensor Module User Manual

Model: 3-01-1205

1. PRODUCT OVERVIEW

The HiLetgo Liquid Level Controller Sensor Module is designed for automatic water level control in various applications such as water towers, pools, or drainage systems. This module detects water levels and controls a connected pump or solenoid valve to maintain desired water levels. It features simple wiring, low power consumption, and high switching capacity. It can be configured to automatically start a pump when water levels are low (for filling) or high (for draining) and stop it when the desired level is reached. Probes are not included; standard household wiring can be used by stripping approximately 2 cm of insulation from the wire ends.

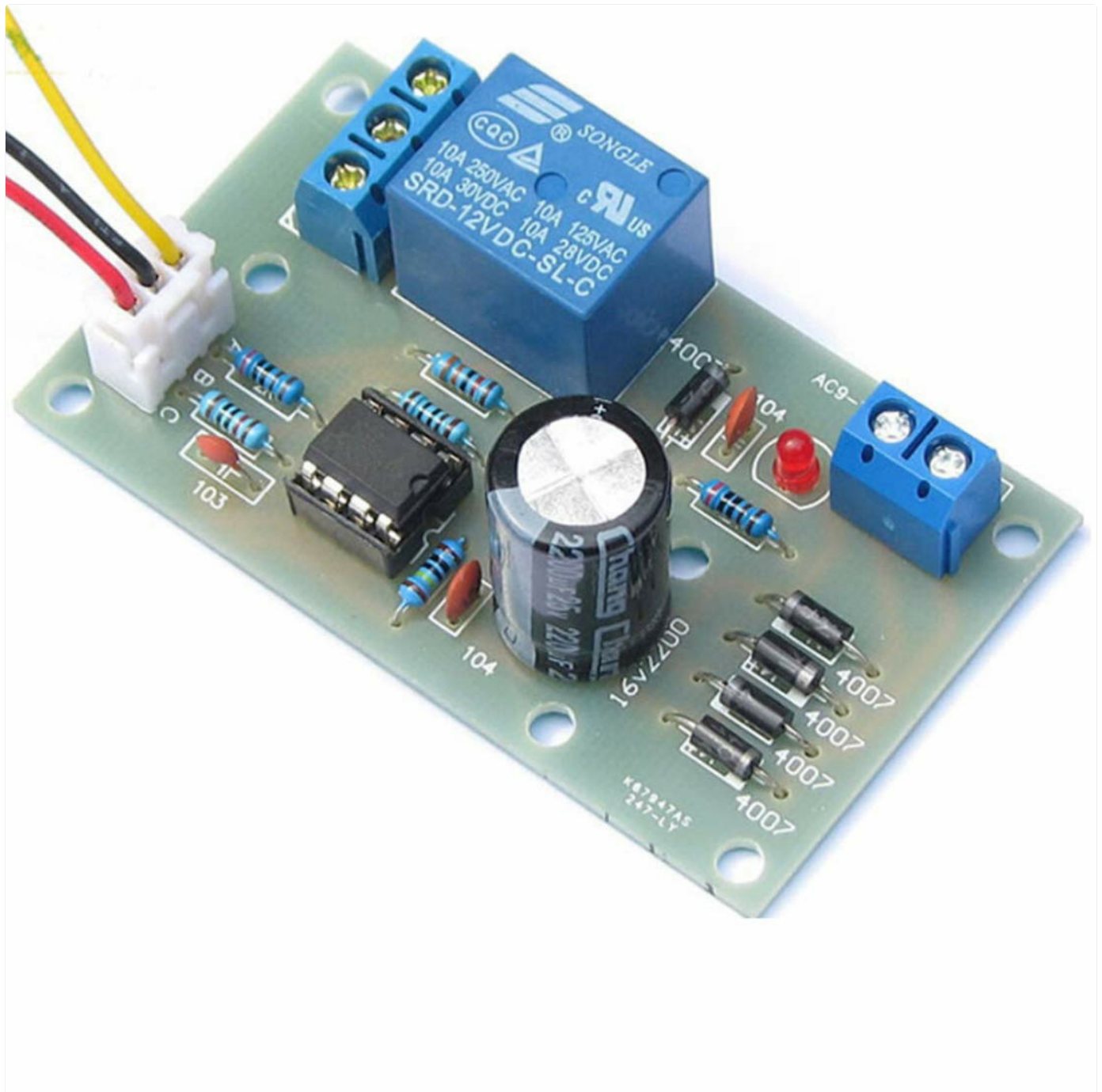


Figure 1: HiLetgo Liquid Level Controller Sensor Module.

2. FEATURES

- Liquid Level Controller Sensor functionality.
- Low power consumption for efficient operation.
- High switching capacity for controlling pumps or valves.
- Assembled module for ease of use.
- Compact PCB Size: 4 x 7 cm.

3. SETUP AND INSTALLATION

This module requires external probes for water level detection. Standard household wiring can be used as probes. To prepare a probe, peel approximately 2 cm of insulation from the wire end, exposing the bare wire to be immersed in water.

3.1 Wiring Diagram

Figure 2: Detailed wiring diagram for the liquid level controller.

Refer to Figure 2 for the wiring connections. The module supports both AC 9-12V and DC 12-15V power input.

- **Power Input:** Connect AC 9-12V or DC 12-15V to the designated terminals.
- **Control Output:** Connect your pump or valve to the control output terminals. The relay provides common (COM), normally open (NO), and normally closed (NC) contacts.
- **Probes:** Connect the prepared bare wires to the probe terminals (A, B, C).

3.2 Probe Placement for Automatic Water Filling (Sheung Shui)

For automatic filling applications (e.g., filling a water tower or pool):

1. Connect the **Red** wire (often labeled 'A' or 'High Level') to the desired maximum water level.
2. Connect the **Yellow** wire (often labeled 'B' or 'Low Level') to the desired minimum water level.
3. Connect the **Black** wire (often labeled 'C' or 'Common') to the very bottom of the water container, ensuring it is always submerged.

When the water level drops below the Yellow probe (low level), the relay will activate, turning on the pump to fill the container. When the water level reaches the Red probe (high level), the relay will deactivate, stopping the pump.

3.3 Probe Placement for Automatic Drainage

For automatic drainage applications (e.g., emptying a basement or garage):

1. Connect the **Red** wire (often labeled 'A' or 'High Level') to the desired maximum water level where drainage should begin.
2. Connect the **Yellow** wire (often labeled 'B' or 'Low Level') to the desired minimum water level where drainage should stop.
3. Connect the **Black** wire (often labeled 'C' or 'Common') to the very bottom of the water container, ensuring it is always submerged.

When the water level rises to the Red probe (high level), the relay will activate, turning on the pump to drain the container. When the water level drops below the Yellow probe (low level), the relay will deactivate, stopping the pump.

4. OPERATING INSTRUCTIONS

Once the module is correctly wired and probes are placed according to your application (filling or draining), apply power to the module. The relay indicator LED will illuminate when the relay is active (e.g., pump is running). The module will automatically control the connected pump or valve based on the water levels detected by the probes.

The system operates with a hysteresis effect, meaning it maintains the water level between two distinct points (high and low probes) rather than a single set point.

5. MAINTENANCE

The HiLetgo Liquid Level Controller Sensor Module is designed for reliable operation with minimal maintenance.

- **Probe Cleaning:** Periodically inspect the water level probes for mineral buildup or corrosion, especially in hard water environments. Clean probes as needed to ensure accurate detection.
- **Connection Check:** Ensure all wiring connections remain secure and free from corrosion.
- **Environmental Conditions:** Operate the module within its specified environmental conditions to prevent damage.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
Module not responding / Relay not activating	No power or incorrect power input. Loose or broken solder connections on the PCB (e.g., capacitor). Incorrect probe wiring or placement. Probes are dirty or corroded.	Verify power supply (AC 9-12V or DC 12-15V) and connections. Inspect the PCB for any loose components or broken solder joints, especially around larger components like capacitors. If comfortable, re-solder connections. Double-check probe connections against the wiring diagram (Figure 2) and ensure correct placement for desired operation. Clean probes to remove any buildup.
Pump/Valve runs continuously or not at all	Incorrect probe placement for the desired function (fill vs. drain). Faulty relay.	Review Section 3.2 and 3.3 for correct probe placement for your application. Test the relay functionality. If the relay is faulty, the module may need replacement.
Inconsistent water level control	Probes are too close together. Water conductivity issues.	Ensure sufficient vertical distance between the high and low level probes to establish clear hysteresis. Ensure the water has sufficient conductivity for the probes to detect.

7. SPECIFICATIONS

- **Manufacturer:** HiLetgo
- **Part Number:** 3-01-1205
- **Item Model Number:** 3-01-1205
- **Material:** FR4
- **PCB Size:** 4 x 7 cm
- **Item Weight:** 1.16 ounces
- **Package Dimensions:** 4.76 x 2.72 x 1.02 inches
- **Power Input:** AC 9-12V or DC 12-15V
- **Relay Switching Capacity:** 10A 250VAC / 10A 125VAC / 10A 30VDC / 10A 28VDC

8. SUPPORT INFORMATION

For technical support or any issues with your HiLetgo product, please contact:

- **Email:** support@hiletgo.com
- **Website:** www.hiletgo.com



Figure 3: Product packaging displaying support contact information.

ASK A QUESTION ABOUT THIS MANUAL

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.

Name

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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