

## I. Overview

The HHY11PG - A Liquid Level Relay (hereinafter referred to as "the relay") is a newly developed high - performance product of our company. It is suitable for AC 50Hz control circuits with an operating voltage of 240V or below, serving as an automatic liquid level control component to connect and disconnect circuits as required.

This relay features small size, light weight, and stable performance, and complies with the relevant requirements of GB/T 14048.5.

## II. Main Technical Data

1. Operating Power Supply (Control Power Supply Voltage): AC/DC 100V-240V. Allowable voltage fluctuation range: 85%-110% of  $U_c$ .
2. Power Consumption: 2W.
3. Contact Rating: 1A AC 240V (resistive load), Usage Category AC - 15.
4. Length of Control Probe Lead: 200m.
5. Ambient Temperature: -5 to 40 .
6. Altitude: 2000m.
7. Humidity: When the maximum temperature at the installation site is 40 , the relative humidity of air 50%. Higher relative humidity is allowed at lower temperatures (e.g., up to 90% at 20 ). Special measures shall be taken for occasional condensation caused by temperature changes.
8. Pollution Degree: Grade 3.
9. Mounting Method: Panel - mount or 35mm DIN rail - mount.
10. Conventional Enclosed Thermal Current ( $I_{th}$ ): 3A.
11. Rated Insulation Voltage ( $U_i$ ): 380V.
12. Rated Impulse Withstand Voltage ( $U_{imp}$ ): 4kV.

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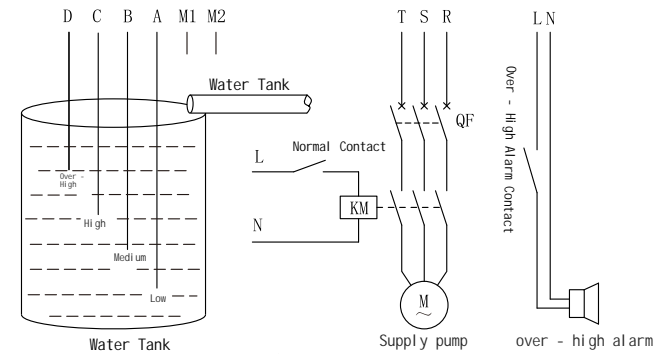


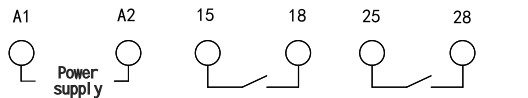
Figure 1

## (II) Installation and Instructions for Drainage - Over - High Dual - Drainage Probes:

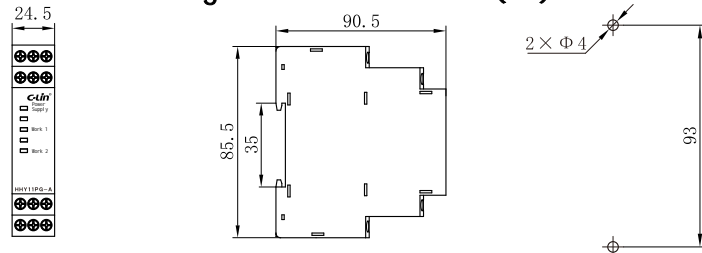
1. The "WORK1" indicator illuminates when the normal drainage contacts are closed; the "WORK2" indicator illuminates when the standby drainage contacts are closed.
2. As shown in Figure 2: Leave mode selection terminal M1 unconnected, and connect M2 to terminal A. The operating principle is: When the water level in the tank is below "Medium": Neither the normal drainage contacts nor the standby drainage contacts output signals. When the water level rises to "High": The normal drainage contacts close (starting Pump 1). When the water level further rises to "Over - High": The standby drainage contacts close (starting Pump 2). When the water level drops below "High": The standby drainage contacts release (stopping Pump 2). When it further drops below "Medium": The normal drainage contacts release (stopping Pump 1). This cycle repeats...

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## III. Wiring Diagram



## IV. Outline and Mounting Hole Dimensions (mm)



## V. Installation and Instructions for Liquid Level Probes

### (I) Installation and Instructions for Water Supply - Over - High Alarm Type Probes:

1. The "WORK1" indicator illuminates when normal contacts are closed; the "WORK2" indicator illuminates when over - high alarm contacts are closed.
2. As shown in Figure 1: Leave terminals M1 and M2 (mode selection) unconnected. The operating logic is: When the water level is below "Medium": Normal water - supply contacts close (start the pump). When the water level rises to "High": Normal water - supply contacts release (stop the pump). When the water level further rises to "Over - High": Over - high alarm contacts close (trigger an alarm). When the water level drops below "High": The alarm is reset. When the water level further drops below "Medium": Normal water - supply contacts close again. This cycle repeats...

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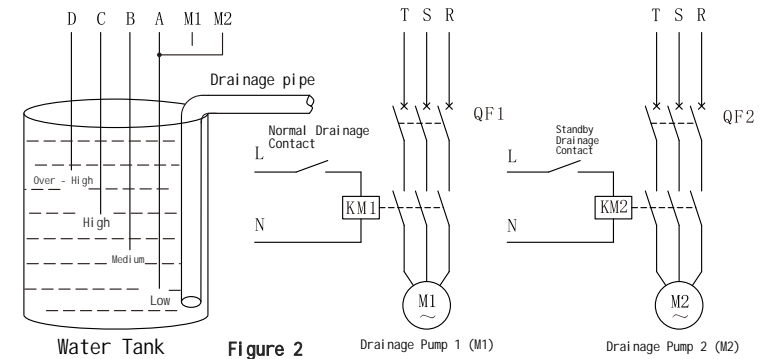


Figure 2

## (III) Installation and Instructions for Drainage - Ultra - Low Alarm Type Probes:

1. The "Work 1" indicator light turning on means the normal drainage contacts are closed; the "Work 2" indicator light turning on means the ultra - low alarm contacts are closed.
2. As shown in Figure 3, for the mode selection terminals, connect M1 to A and leave M2 unconnected. The working mode is as follows: When the water level in the pool is below "Low", the ultra - low alarm contacts close (triggering an alarm). When the water level rises above "Low", the alarm is released. When the water level rises to "High", the normal drainage contacts close (starting the water pump) and drainage begins. When the water level drops below "Medium", the normal drainage contacts release (stopping the water pump). If the water level further drops below "Low", the ultra - low alarm contacts close (triggering an alarm). This cycles continuously...

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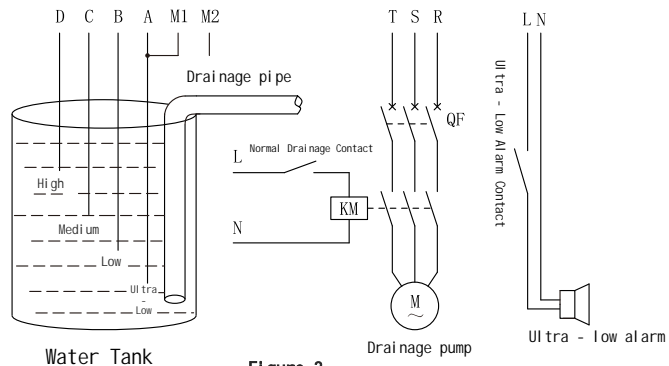
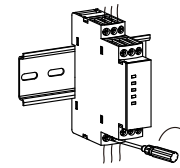


Figure 3

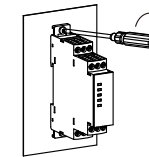
#### (IV) Installation and Instructions for Water Supply - Ultra - Low Self-Locking Type Probes:

1. The "Work 1" indicator light turning on means the normal contacts are closed; the "Work 2" indicator light turning on means the ultra - low contacts are closed.
2. As shown in Figure 4, for the mode selection terminals, connect both M1 and M2 to A. The working mode is as follows: When the water level in the pool is below "Low", the normal contacts close. If there is no water in the water pipe, the ultra - low contacts do not close; if there is water in the water pipe, the ultra - low contacts close and the water pump starts. When the water level rises above "High", the normal contacts release and the water pump stops supplying water. When the water level drops below "Medium", the normal contacts close again. This cycles continuously. . .

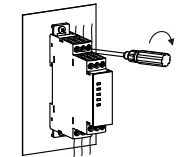
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(4) Connect the wires according to the product terminal markings and tighten the terminal screws.



(5) Tighten the mounting screws.



(6) Connect the wires according to the product terminal markings and tighten the terminal screws.

#### VII. Precautions

1. To ensure the normal operation of the relay, after installation, recheck the wiring of inputs and outputs, and whether the positions of the probe connection wires are correctly placed. Additionally, move the probes up and down to make them contact or leave the water surface, simulating and detecting if the water level controller functions properly.
2. It is recommended to fix each probe on the inner wall of the water tank to prevent positional shifts of the probes, which may cause false operations of the relay (not advisable if the tank wall is made of metal).
3. To avoid false operations, do not install the product in humid, corrosive environments or those with gas containing high metal content. The leads of the probes (electrodes) should not be routed in the same conduit as power lines. If the probe (electrode) leads are long, they should be twisted together during routing.

#### VIII. Ordering Information

Specify the product model, voltage rating, and quantity. If there are special requirements, they should be additionally noted.

**Example:** HHY11PG - A AC220V, 100 units.

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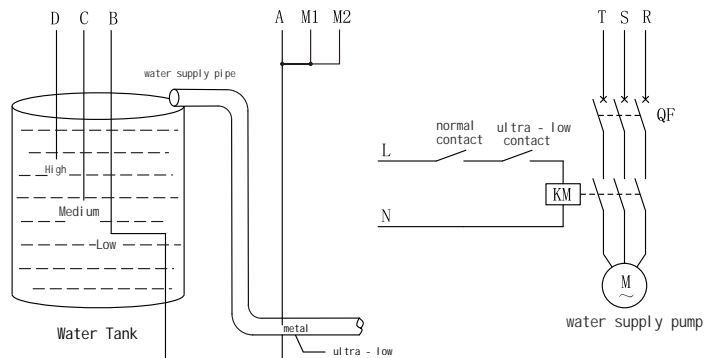
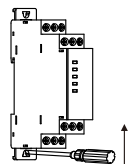


Figure 4

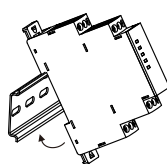
#### VI. Installation Method

**Note:** Before installation, the main circuit power supply must be cut off.

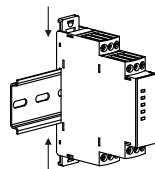
1. Rail - Mounted Installation: (1) (2) (3) (4)
2. Panel - Mounted Installation: (1) (5) (6)



(1) Pry open the rail clip.



(2) Clip the product onto the rail.



(3) Close the rail clip.

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使用说明书  
Products Instructions

**HHY11PG-A**  
Liquid Level Relay

Thank you very much for using the C - Lin brand liquid level relay. Please read the instruction manual before using the product!

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