

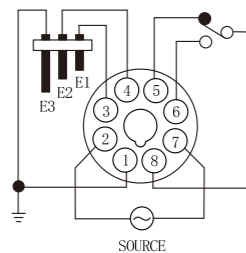
## I. Overview

The C61F-GP liquid level relay (hereinafter referred to as "the relay") is designed as an automatic liquid level control component for AC 50Hz control circuits with a rated operating voltage of 380V or below, switching circuits on/off as required. This relay offers advantages such as compact size, light weight, low power consumption, and stable/reliable performance, making it widely applicable in industrial and agricultural production. It complies with the relevant requirements of GB/T 14048.5.

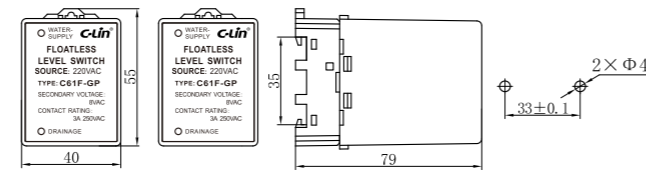
## II. Main Technical Data

1. Operating power supply (control supply voltage): AC 380V, 220V, 110V, 36V, 24V 50Hz; DC 24V. The allowable voltage fluctuation range is (85%–110%)  $U_c$ .
2. Contact capacity: 3A AC250V (resistive load).
3. Pollution degree: Class 3.
4. Mounting method: Panel mounting or 35mm DIN rail mounting.
5. Conventional heating current  $I_{th}$ : 3A.
6. Rated insulation voltage  $U_i$ : 380V.
7. Rated impulse withstand voltage  $U_{imp}$ : 4kV.
8.  $U_c/I_c$ : For the usage category AC-15, the rated operating voltage  $U_c$  is AC250V and the rated operating current  $I_c$  is 3A.

## III. Wiring Diagram



## IV. Outline and Mounting Dimensions



## V. Usage Instructions

1. The "High" electrode is the upper liquid level control point of the pool. When the water level rises to the high point and water contacts the probe (electrode), the relay automatically turns off the pump and stops water supply.
2. The "Medium" electrode is the lower liquid level control point of the pool. When the water level drops below the medium point and water loses contact with the probe (electrode), the relay automatically turns on the pump to add water to the pool.
3. The "Low" electrode is the bottom reference of the pool. Place it at the lowest point of the pool, slightly higher than the bottom of the pool.

## VI. Precautions

1. Fix each probe (electrode) on the inner wall of the pool. If the inner wall of the pool is metal, the three probes (electrodes) must be insulated from the pool. Probes (electrodes) can be additionally configured.
2. To ensure the normal operation of the relay: After installation, recheck the input and output wiring and the position of the probe connection wires. Move the probes up and down to simulate water contact/disconnection, verifying the water level controller works properly.
3. It is recommended to fix each probe on the inner wall of the pool to prevent position displacement.

Fix each probe on the inner wall of the pool. If the pool wall is metal, this is not advisable as it may cause the controller to malfunction due to position deviation. To avoid malfunction: Do not install the product in humid, corrosive environments or those with high metal content gases. Do not route probe (electrode) leads in the same conduit as power lines. If probe (electrode) leads are long, twist them together for routing.

## VII. Installation Methods

**Note: The main circuit power supply must be disconnected before installation or disassembly. Note: The main circuit power supply must be disconnected before installation or disassembly.**

### 1. Panel-mounted Installation Sequence

- (1) (2) (3) (4)

### 2. Panel-mounted Disassembly Sequence

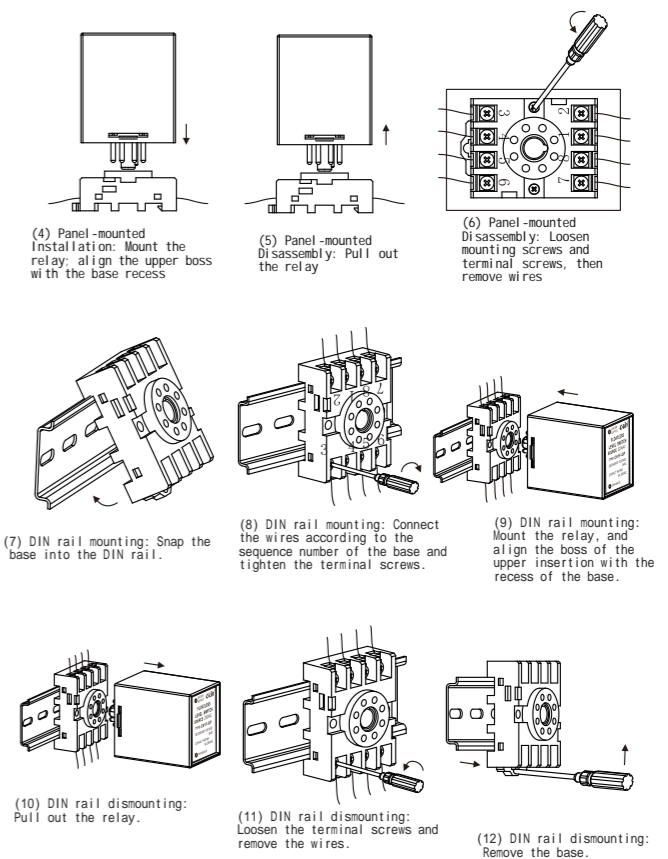
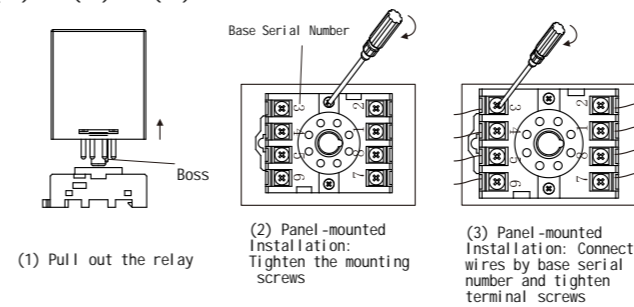
- (5) (6)

### 3. DIN Rail-mounted Installation Sequence

- (1) (7) (8) (9)

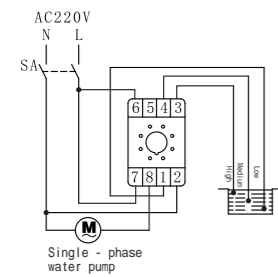
### 4. DIN Rail-mounted Disassembly Sequence

- (10) (11) (12)

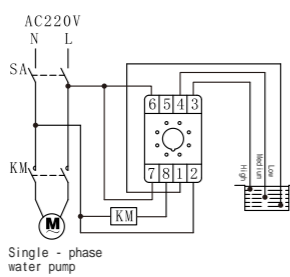


## VIII.Examples of Application Circuits

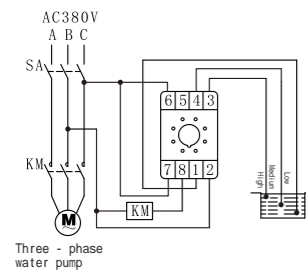
Example 1 :



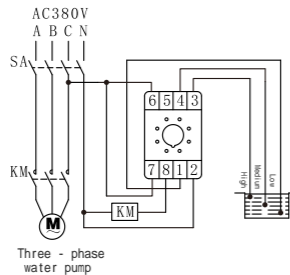
Example 2 :



Example 3 :



Example 4 :



1. For a single - phase water pump: If the power is  $\leq 200W$ , the relay controls directly, and the wiring refers to Example 1; if the power is  $> 200W$ , the relay expands the capacity through an AC contactor, and the wiring refers to Example 2. For a three - phase water pump: When the power supply for the AC contactor and the relay is AC380V, the wiring refers to Example 3; when the power supply for the AC contactor and the relay is AC220V, the wiring refers to Example 4.

2. The function of the example relay (taking the water - supply type as an example):

When the power is connected, if the water level in the pool is lower than the medium water level, the relay connects the power supply of the water pump directly or through an AC contactor to start supplying water to the pool. When the water level is higher than the high water level, the relay disconnects the power supply of the water pump directly or through the AC contactor to stop water supply.

**Note 1:** To avoid frequent switching of the relay, the medium water level probe should preferably be placed in the middle and not too close to the low water level or high water level probe.

**Note 2:** KM is the coil of the AC contactor. Terminals A1 and A2 can be connected according to Example 2, Example 3, and Example 4.

**Note 3:** The working power supply of the relay and KM in Example 3 is both AC380V. Attention should be paid to the voltage level of the selected product.

## IX. Ordering Information

It is necessary to specify the product model, voltage level, and quantity. If there are special requirements, they should be noted separately.  
For example: C61F - GP AC220V, 100 pieces.



产品合格证

产品合格证

符合标准: GB/T 14048.5

检验员: 杨01

出厂日期: 见产品或包装

本产品经检验合格, 准予出厂。

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使用说明书  
Products Instructions

**C61F-GP**

Liquid Level Relay

Thank you very much for using the C-Lin Brand C61F-GP Liquid Level Relay. Please read the instruction manual before use!

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