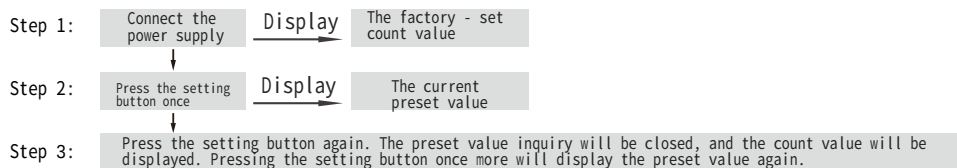
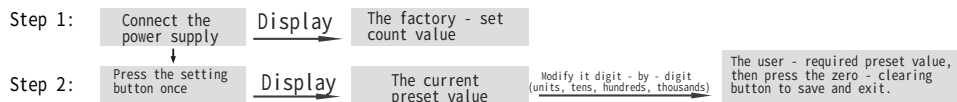


VII. Parameter Setting

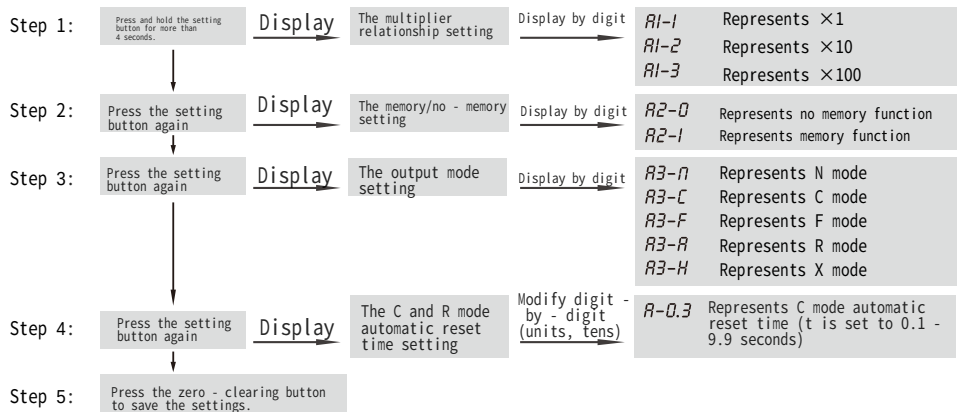
1. Preset Value Inquiry



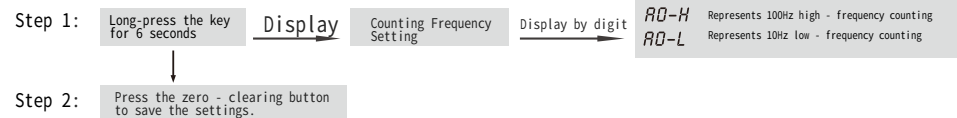
2. Preset Value Setting



3. Multiplier Setting, Memory Function Setting, Output Mode Setting, C/R Mode Time Setting (No fourth step for N/F/X mode)



4. Counting Frequency Setting



Note: Checking parameters during the counting process does not affect the counting.

VIII. Ordering Instructions

- When placing an order, clearly state the product model, operating voltage, and quantity.
 - By default, the product is in N mode with a memory function and a multiplier of ×1 upon regular factory - out. If other modes, non - memory function, or other multiplier relationships are required, please set according to the above - mentioned steps.
- Example: HHJ1 (key - press type), AC/DC 10 - 240V, 800 pieces



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使用说明书
Products Instructions

HHJ1 (Key - type)
Counting Relay

N/C/F/X Mode

We sincerely appreciate your choice of C-Lin Brand products. Please read the instruction manual before use.

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I. Overview

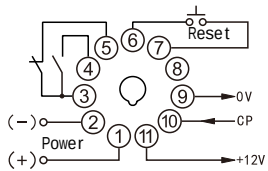
The HHJ1 (keystroke - type) counting relay is applicable as a counting element in control circuits with an alternating current of 50/60Hz and a rated working voltage of 380V or below, or a direct - current working voltage of 240V or below. It connects or disconnects the circuit according to the preset number.

This product complies with the requirements of GB/T 14048.5.

II. Main Technical Data

- 1.Working Voltage (control power supply voltage): AC380V, AC/DC100 - 240V, AC/DC24V 50/60Hz, with an allowable voltage fluctuation range of (85% - 110%)Ue.
- 2.Counting Range: 1 - 9999 (×1, ×10, ×100 multiples).
- 3.Counting Signals:a) Contact signals: from contacts, travel switches, etc.
b) Level signals: positive - pulse level (H: DC4V - 30V), with a minimum counting pulse width ≥15ms.
c) Sensor signals: photoelectric switches, proximity switches, Hall switches.
- 4.Counting Frequency:a) Low - frequency counting: ≤10 times/second.
b) High - frequency counting: ≤100 times/second, with a signal duty cycle of 50%.
- 5.Power - off Memory: 10 years.
- 6.Output Modes: N, C, F, R, X systems.
- 7.Contact Capacity: 3A AC250V (resistive).
- 8.Ue/Ie: Under the usage category, for each rated working voltage Ue/rated working current Ie: AC - 15 Ue: AC250V, Ie:3A.
- 9.Conventional Heating Current Ith: 5A.
- 10.Rated Insulation Voltage Ui: 400V.
- 11.Rated Impulse Withstand Voltage Uimp: 2.5KV.
- 12.Pollution Degree: 3.
- 13.Protection Level: Front - panel IP20.
- 14.Ambient Temperature: - 5 °C - + 40 °C.
- 15.Relative Humidity: ≤90%.
- 16.Altitude: ≤2000m.
- 17.Mounting Methods: Panel - mounted, 35mm rail - mounted, or fixed via a base.

III. Wiring Diagram



Note 1: Terminals ① and ② are the power input terminals (for direct current, ① is the positive pole and ② is the negative pole); terminals ③ and ④ are normally - open contacts; terminals ⑤ and ⑥ are normally - closed contacts; terminals ⑦ and ⑧ are the reset terminals; terminal ⑨ is the 0V terminal; terminal ⑩ is the counting signal input terminal; terminal ⑪ is the DC12V 30mA (max) sensor auxiliary power output terminal.
Note 2: The counting signal input wire and the reset control wire should be as short as possible. Avoid routing them in the same pipe or twisting them together with other wires such as power wires and power - driven wires. If necessary, use shielded wires. Do not apply voltage to the reset terminal to avoid damaging the product.

IV. Counting Signal Input

Level Counting	(+) ———→ CP (Pin ⑩) Input Pulse Level (DC4V - 30V) (-) ———→ 0V (Pin ⑨)	PNP - type Sensor	Sensor Brown ———→ +12V (Pin ⑪) Black ———→ CP (Pin ⑩) Blue ———→ 0V (Pin ⑨)
Contact Signal Counting	+12V (Pin ⑪) Mechanical switch CP (Pin ⑩) 4.7 μF/50V 0V (Pin ⑨) Note: If over - counting or under - counting occurs, connect a 4.7 μF/50V electrolytic capacitor between the CP signal terminal and 0V.	NPN - type Sensor	Sensor Brown ———→ +12V (Pin ⑪) Black ———→ 2KΩ ———→ CP (Pin ⑩) Blue ———→ 0V (Pin ⑨) Note: When using an NPN - type sensor, a 2KΩ resistor must be connected between the CP signal terminal and +12V.

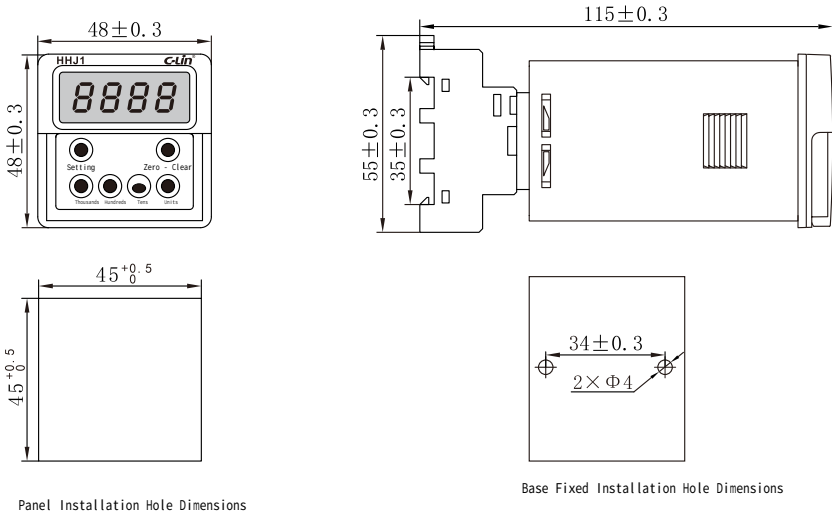
Note: It is preferred to select a DC (DC10 - 30V) PNP normally - open photoelectric switch or proximity switch. If using an NPN - type sensor, connect a 2KΩ resistor as shown in the above diagram (each counter is shipped with one 2KΩ resistor and one 4.7 μF/50V electrolytic capacitor).

V. Output Mode Diagrams

N - mode	When the set number is reached, counting stops, the relay is energized, and counting restarts after pressing the reset button.	C - mode	(t is set to 0.1 - 9.9 seconds) When the set number is reached, it automatically resets to zero and starts counting again. Meanwhile, the relay is energized for t seconds and then releases.
F - mode	After reaching the set number, counting continues, the relay is energized, and counting restarts after pressing the reset button.	R - mode	(t is set to 0.1 - 9.9 seconds) When the set number is reached, a short - pulse output lasts for t seconds, and counting restarts after the pulse ends.
X - mode	When the set number is reached, the relay is energized, and it then counts down to 0 before releasing, repeating this cycle.		

Note: The N, F, and X modes require manual reset, while the C and R modes are automatically reset.

VI. Outline and Cutout Dimensions (mm)



Panel Installation Hole Dimensions

Base Fixed Installation Hole Dimensions