VII. Function Settings

1.Key Functions

① "M" Function Key: Press the "M" key once, display: Preset number (setting range: 1~999999, can be set arbitrarily); Long press the "M" key for 4 seconds, display: Value coefficient, R2, R3, R4, R5.
Explanation: Value coefficient: setting range 0.001~9.999;

R2: R2---L indicates low - frequency counting (counting frequency ≤30 times/second)
R2---H indicates high - frequency counting (counting frequency ≤1000 times/second)

R3: R3---U indicates positive counting (counting display is 1, 2, 3, 4, 5……)
R3---d indicates reverse counting (counting display is 100, 99, 98, 97……)

R4: R4---N indicates N - mode R4---R indicates R - mode
R4---C indicates C - mode R4---X indicates X - mode
R4---F indicates F - mode

R5: R5-00.0 indicates automatic zero - reset time (setting range: 0.1s~99.9s) (only for C and R modes)

② "►" Shift Key: Press this key to move digits, such as moving the units digit to the tens digit or the tens digit to the hundreds digit, etc.
③ "▲" Add Key: Press this key to add to the selected digit (i.e., the flashing digit).
④ "R" Reset Key: Press this key to reset the displayed digits and the counting output status, restoring to the initial state.

2.Preset Number Setting

Step 1	Power on	display	The count value at factory		
Step 2	Press the M key once	display	The preset number at factory	Press ►and ▲ keys to modify it	the preset number required by the user, then press the R key to confirm.

3. Parameter Setting (For N, F, and X modes, there is no fifth - step setting, only for C and R modes)

Step 1	Long press the M key for 4 seconds	display	value - coefficient setting	Press ►and ▲ keys to modify it	the value - coefficient required by the user
Step 2	Press the M key again	display	high/low - frequency setting	Press ▲ key to display	R2---L indicates low - frequency counting 30 times/second R2---H indicates high - frequency counting 1000 times/second
Step 3	Press the M key again	display	positive/reverse counting setting	Press ▲ key to display	R3---U indicates positive counting (adding count) R3---d indicates reverse counting (subtracting count)
Step 4	Press the M key again	display	output mode setting	Press ▲ key to display	R4---N indicates N - mode R4---R indicates R - mode R4---C indicates C - mode R4---X indicates X - mode R4---F indicates F - mode
Step 5	Press the M key again	display	C and R mode automatic reset time setting R5 - 00.0 seconds (setting range 0.1s~99.9s)	Press ►and ▲ keys to modify it	the time required by the user
Step 6	Press the R key again to store the modified data.				

Example:When the preset number is 1268.88, the value - coefficient is 0.250, the counting signal is high - frequency counting, the counting method is positive counting, and the output modes are N, F, and C modes with an automatic zero - reset time of 15.8 seconds, the display codes are as follows:

N - mode	1268.88	0.250	R2---H	R3---U	R4---N		Finally, press the R key to store the data
F - mode	1268.88	0.250	R2---H	R3---U	R4---F		Finally, press the R key to store the data.
C - mode	1268.88	0.250	R2---H	R3---U	R4---C	R5-15.8	Finally, press the R key to store the data.

VIII. Instructions for Use

1.The "R" key serves as both a reset key and a confirmation key. After each parameter setting, this key must be pressed for confirmation, and then it can operate according to the newly - set parameters.
2.When using contact - signal input for counting, if poor contact or bounce of the input contact causes false counting, please connect a 4.7μF/50V electrolytic capacitor between terminals ⑨ and ⑩ of the counting - signal input. Terminal ⑨ is connected to the negative pole of the electrolytic capacitor, and ⑩ is connected to the positive pole.
3.The counting - signal input wire and reset - control wire should be as short as possible. Avoid sharing the same tube or twisting with other wires such as power lines and power - driven lines. If necessary, use shielded wires, and do not input voltage at the reset terminal to avoid damaging the product.
4.Display accuracy and counting range are related to the value - coefficient setting:
a) If the value - coefficient is set to 0.002 (precise to the 3rd decimal place), its counting range is 0.002 - 999.999.
b) If the value - coefficient is set to 0.2 (precise to the 1st decimal place), its counting range is 0.2 - 99999.9.

IX. Ordering Instructions

When placing an order, clearly specify the product model, working voltage, and quantity.
Example: HHM1 - A (new type) AC220V 500 pieces.

产品合格证

C-Lin 欣灵

产品合格证

符合标准: GB/T 14048.5
检 验 员: 检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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技术咨询：400-8236-775

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使用说明书
Products Instructions

HHM1 - A (New Type)

Counting Relay N/C/F/R/X Modes

Thank you very much for using C-Lin products.
Please read the instruction manual before use!

29A031P0

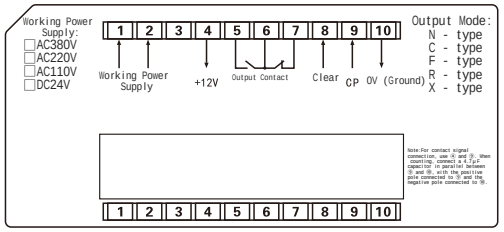
I. Overview

HHM1 - A (new type) counting relay is suitable for use as a counting element in control circuits with AC 50/60Hz, rated working voltage 380V and below, or DC working voltage 24V, to connect or disconnect the circuit according to the preset number. It adopts single - chip microcomputer circuit and EEPROM memory, photoelectric isolation of counting signals, 6 - digit LED digital display, supports setting of value coefficient, and has the advantages of wide counting range, multiple counting signal inputs, multiple output working modes, positive/negative counting, power - off memory up to 10 years, stable and reliable counting performance, etc.
This product complies with the requirements of GB/T 14048.5.

II. Main Technical Data

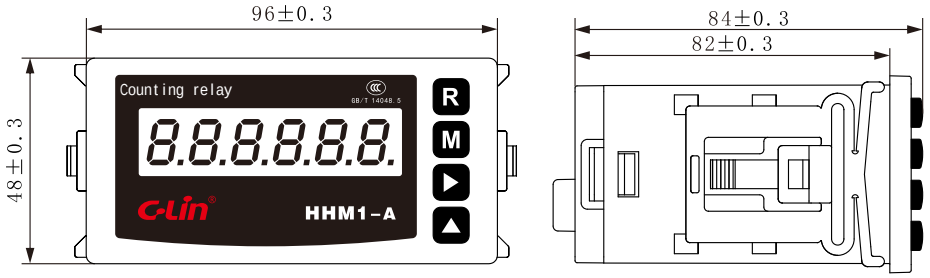
1.Working voltage (control power supply voltage): AC380V, 220V, 110V, 36V, 24V 50/60Hz, allowing a voltage fluctuation range of (85% - 110%) Ue; DC24V.
2.Counting range: 1 - 999999 (value coefficient: 0.001 - 9.999);
3.Counting signals:a) contact signal: relay contact, travel switch, etc.;
b) level signal: pulse level (H: DC4V - 30V valid, L: 0 - DC2V invalid);
c) sensor signal: photoelectric switch, proximity switch, Hall switch;
4.Counting frequency:a)low - frequency counting: ≤30 times/second, minimum signal pulse width ≥15ms;
b)high - frequency counting: ≤1000 times/second, minimum signal pulse width ≥0.5ms, signal duty - cycle is 50%;
5.Reset method: button reset or short - circuit reset of terminals ⑧ and ⑩;
6.Ue/Ie: Under the usage category, each rated working voltage Ue / rated working current Ie: AC - 15 Ue: AC250V, Ie: 3A;
7.Counting method: positive / negative counting;
8.Power - off memory: 10 years;
9.Output modes: N, C, F, R, X;
10.Contact capacity: 3A AC250V (resistive);
11.Conventional heating current Ith: 5A;
12.Rated insulation voltage Ui: 400V;
13.Rated impulse withstand voltage Uimp: 2.5KV;
14.Pollution degree: Grade 3;
15.Protection level: front panel IP20;
16.Ambient temperature: - 5℃ - +40℃;
17.Relative humidity: ≤90%;
18.Altitude: ≤2000m;
19.Mounting method: panel - type;

III. Wiring Diagram

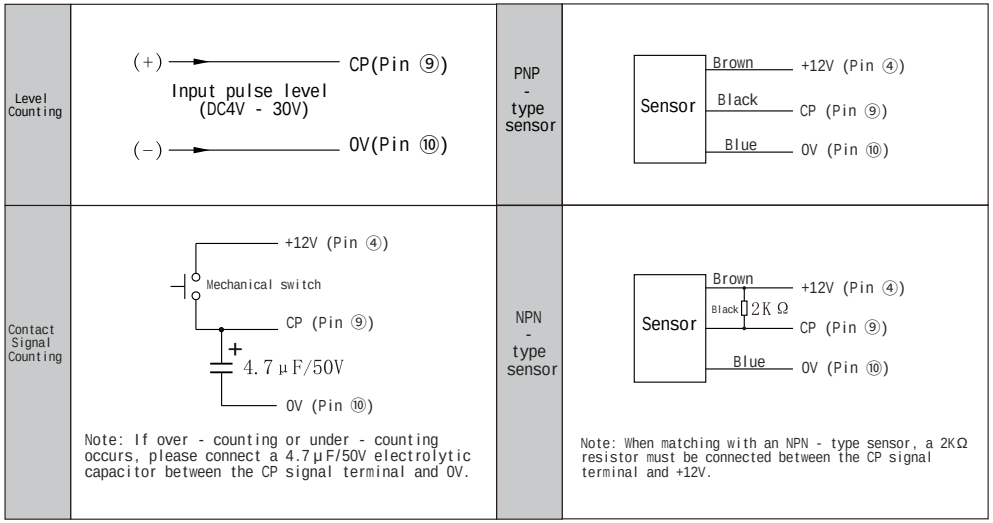


Note:Terminals ① and ② are power input terminals (when DC, ① is the positive pole and ② is the negative pole); ④ is the DC12V 30mA (max) sensor auxiliary power output terminal; ⑤ and ⑥ are normally - open contacts; ⑥ and ⑦ are normally - closed contacts; ⑧ is the reset terminal; ⑨ is the counting signal input terminal; ⑩ is the 0V terminal.

IV. Outline and Installation Dimension Diagram (Installation Cutout Dimension: $45^{+0.5}_{0} \times 92^{+0.5}_{0}$ mm)

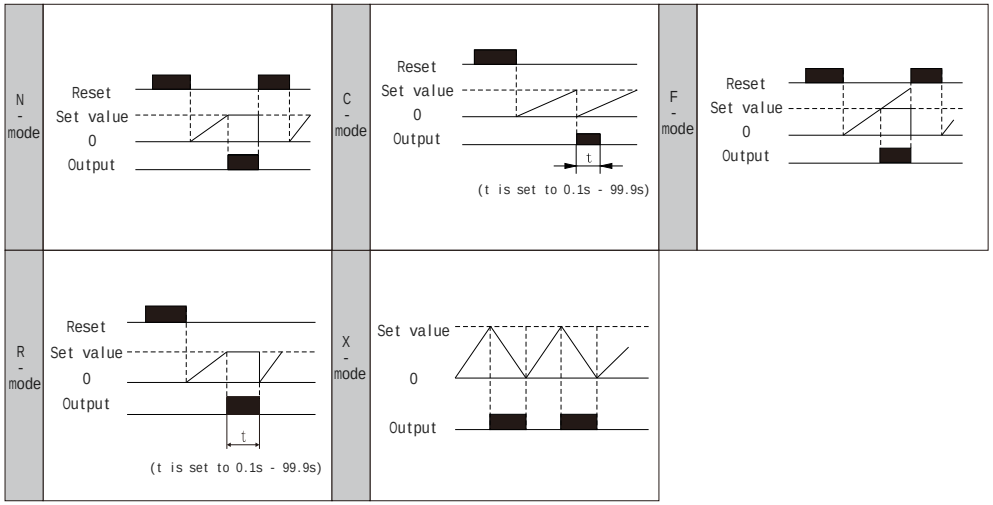


V. Counting Signal Input



Note: Preferably select a DC (DC10 - 30V) PNP normally - open photoelectric switch or proximity switch. When matching with an NPN type, please connect a 2KΩ resistor as shown in the above figure (each meter counter is randomly equipped with a 2KΩ resistor and a 4.7μF/50V electrolytic capacitor at the factory).

VI. Output Mode Diagram



N - mode: Stop counting when the set value is reached, the relay is energized, and it resets to zero and starts counting again after pressing the reset button.
C - mode: When the set value is reached, the display automatically resets to zero and starts counting again, and at the same time, the relay is energized and released after t seconds (t is set to 0.1s - 99.9s).
F - mode: Continue counting when the set value is reached, but the relay is energized, and it resets to zero and starts counting again after pressing the reset button.
R - mode: Output a short pulse for t seconds (t is set to 0.1s - 99.9s) when the set value is reached, and start counting again after the pulse is completed.
X - mode: The relay is energized when the set value is reached, and then released when counting down to 0, repeating this cycle.
Note: N, F, and X modes require manual reset, while C and R modes are automatically reset.