I. Overview

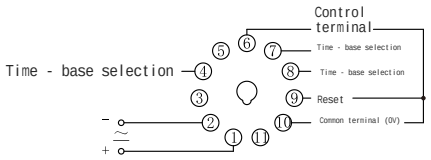
The HHS2 series hour - counters (hereinafter referred to as hour - counters) are used as timing components in control circuits with an alternating current of 50Hz and a power supply voltage of 380V or less for alternating current, or 24V for direct current.The hour - counters adopt special timing chips and have the advantages of high timing accuracy, a wide timing range, and a long service life. They are widely used in various testing instruments and inspection benches in industrial and mining enterprises.

II. Main Technical Data

Product Model	HHS2
Working Power Supply (Control Power Supply Voltage)	AC380V, 220V, 110V, 36V, 24V 50Hz; DC24V, with an allowable fluctuation range of (85% - 110%) Ue
Timing Range	1s～999m59s; 0.1m～9999.9m; 1m～999h59m; 0.1h～9999.9h
Display Mode	Digital tube display
Reset Mode	Panel button switch reset and terminal short - circuit reset
Power - off Retention	10 years
Timing Error	≤0.01%
Ambient Temperature	-5℃～40℃
Altitude	≤2000m
Humidity	When the maximum temperature at the installation site is 40°C, the relative humidity of the air ≤ 50%. At lower temperatures, a higher relative humidity is allowed. For example, at 20°C, it can reach 90%. Special measures should be taken for the condensation occasionally caused by temperature changes.
Pollution Degree	Level 3
Installation Method	Rail - type, panel - type
Conventional Heating Current Ith	5A
Rated Insulation Voltage Ui	400V
Rated Impulse Withstand Voltage Uimp	2.5KV

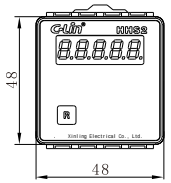
III. Wiring Diagram

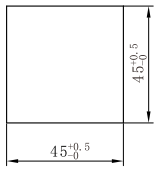
1.When terminals ④, ⑦, and ⑧ are not short - circuited, the timing range is 1s - 999m59s.
2.When terminal ④ is short - circuited with terminal ⑧, the timing range is 1m - 999h59m.
3.When terminal ④ is short - circuited with terminal ⑦, the timing range is 0.1m - 9999.9m.
4.When terminal ④ is short - circuited with terminals ⑦ and ⑧, the timing range is 0.1h - 9999.9h.
5.Short - circuiting the control terminal ⑥ and the common terminal ⑩ starts the timing. If timing is required immediately after power - on, short - circuit terminals ⑥ and ⑩ before power - on.
6.Short - circuiting terminals ⑨ and ⑩ resets the device.



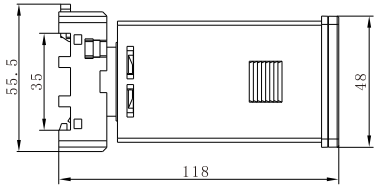
HHS2

IV. Outline and Cutout Dimensions (mm)





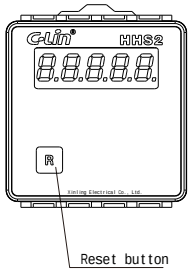
Panel Cutout Dimensions



HHS2

V. Instructions for Use

1.The timing control wires and reset control wires of this series of hour - counters should be kept as short as possible. Avoid running them in the same conduit or twisting them together with other wires like power wires or power - driven wires. Use shielded wires when necessary.
2.Before powering on for timing, select the time base according to the required time.
3."R" is the reset button.



VI. Installation and Removal Methods (Taking HHS2 as an Example)

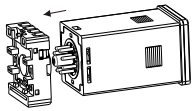
1.Panel-Mounted Installation Sequence: (1) → (2) → (3) → (4)

2.Panel-Mounted Removal Sequence: (5) → (6)

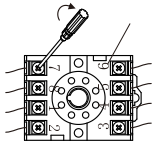
3.Rail-Mounted Installation Sequence: (1) → (7) → (8) → (9)

4.Rail-Mounted Removal Sequence: (10) → (11) → (12)

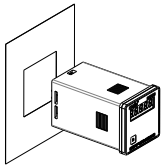
Note: The main circuit power must be cut off before any installation or removal operations.



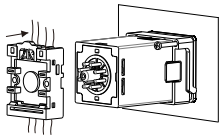
(1) Pull off the base



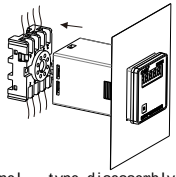
(2) Panel - type installation: Connect the wires according to the base sequence numbers and tighten the terminal screws.



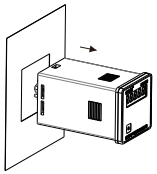
(3) Panel - type installation: Insert the relay into the panel.



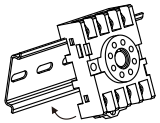
(4) Panel - type installation: Install the base.



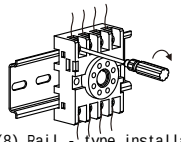
(5) Panel - type disassembly: Pull off the base.



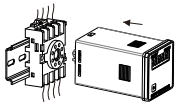
(6) Panel - type disassembly: Pull out the relay.



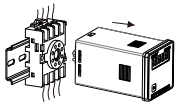
(7) Rail - type installation: Snap the base into the rail.



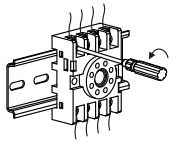
(8) Rail - type installation: Connect the wires according to the base sequence numbers and tighten the terminal screws.



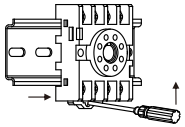
(9) Rail - type Installation: Install the Relay



(10) Rail - type Disassembly: Pull out the Relay



(11) Rail - type Disassembly: Loosen the Terminal Screws and Remove the Wires



(12) Rail - type Disassembly: Pry open the Rail Clips and Remove the Base

VII. Ordering Information

When placing an order, you need to specify the product model, voltage rating, and quantity. For special requirements, additional notes should be made.

Example: HHS2 AC220V, 100 pieces.

产品合格证

C-Lin

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.

C-Lin 欣灵电气股份有限公司 XINLING ELECTRIC CO.,LTD

C-Lin®

欣灵电气股份有限公司

XINLING ELECTRICAL CO.,LTD.

地址: 浙江省乐清经济开发区纬十九路328号

电话: 0577-6273 5555 传真: 0577-6272 2963

官网: www.c-lin.cn E-mail: xl@xinling.com

技术咨询: 400-8236-775

RECYCLABLE

国家高新技术企业 浙江省知名商号

C-Lin 欣灵

使用说明书

Products Instructions

HHS2 Series

Time Accumulator

Thank you very much for using C-Lin brand time accumulators. Please read the instruction manual before using the product!

01A126Q0

I. Overview

The HHS2 - 1(U) hour meter (hereinafter referred to as the hour meter) adopts an 8 - digit liquid - crystal display and a dedicated timing chip. It has advantages such as high timing accuracy, wide application range, no mechanical wear, long service life, and a built - in power supply (lithium battery). It is widely used in automation control circuits of industrial and mining enterprises.

This hour meter complies with the relevant requirements of GB/T 14048.5.

II. Main Technical Data

1.Power Supply: It has a built - in power supply (powered by an internal battery) and does not require an external power supply.

2.Accumulated Timing Range: 99h59m59s, 99999.9h, 9999h59m, 9999d23h, 9999h59m59s, 999999h59m.

3.Accumulated Timing Signals: Contact signals, voltage signals; minimum signal pulse width: ≥0.2s.

4.Display Method: LCD liquid - crystal display.

5.Input Modes:

a) HHS2 - 1 (non - voltage type): Contact signal input.

b) HHS2 - 1U (voltage type): DC4V - 30V voltage input.Reset Methods:

6.Reset via the panel button switch or contact signals at terminals ③ and ④.

7.Maximum Contact - Closure Resistance: ≤10KΩ (during timing ON).

8.Maximum resistance when contact is open: ≥500KΩ (timing OFF);

9.Accumulated timing error: ≤0.01%;

10.Ambient temperature: -5℃～+40℃;

11.Altitude: ≤2000m;

12.Humidity: When the maximum temperature at the installation site is 40℃, the relative humidity of the air is ≤85%. At lower temperatures, a higher relative humidity is allowed, for example, up to 90% at 20℃. Special measures should be taken for occasional condensation caused by temperature changes;

13.Pollution degree: Grade 3;

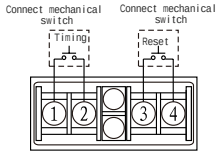
14.Mounting method: Panel - type;

15.Conventional heating current Ith: 5A;

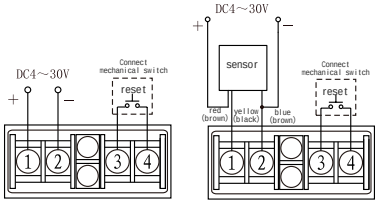
16.Rated insulation voltage Ui: 400V;

17.Rated impulse withstand voltage Uimp: 2.5KV.

III. Wiring Diagram

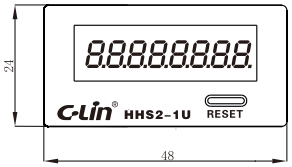


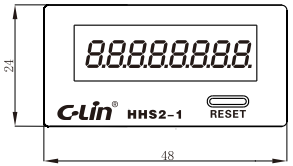
HHS2-1

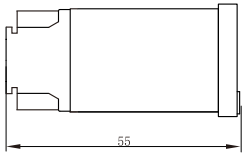


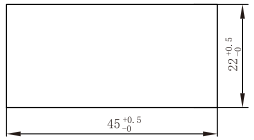
HHS2-1U

IV. Outline and Cutout Dimensions (mm)









Panel cutout dimensions

V. Instructions for Use

1.The timing control switch wires and reset switch wires of the hour meter should be as short as possible. Avoid routing them in the same conduit or using twisted - pair wiring with other wires such as power lines or power - driven lines. Use shielded wires if necessary.

2.The short - circuit reset time of terminals ③ and ④ should not be too long to avoid wasting the internal battery.

3.Toggling the switch to "ON" means the reset button on the panel is ineffective. Toggling the switch to "OFF" means the reset button on the panel is effective.

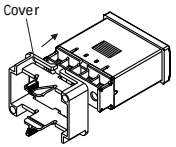
4.Do not input mains electricity or ground the control terminals ①, ②, ③, and ④ to avoid damaging the product.

VI. Installation and Removal Methods

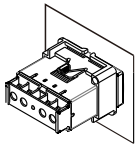
1.Installation sequence: (1) → (2) → (3)

2.Removal sequence: (4) → (5) → (6)

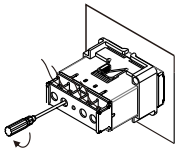
Note: The control power supply must be cut off before installation or removal.



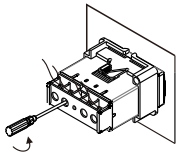
(1) Push on the hour meter cover.



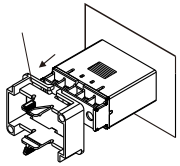
(2) Install the hour meter into the panel, then install the cover.



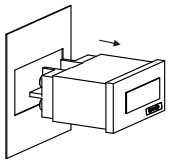
(3) Connect the wires according to the base sequence number and tighten the terminal screws.



(4) Loosen the terminal screws and remove the wires.



(5) Remove the cover.



(6) Pull out the hour meter.

VII. Ordering Information

It is necessary to specify the product model, accumulated timing signal (voltage type or non - voltage type), quantity, and special requirements (if any) should be noted separately.

For example: HHS2 - 1 (non - voltage type) 500 pieces. HHS2 - 1U (voltage type) 1000 pieces.

产品合格证

C-Lin

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。

C-Lin 欣灵电气股份有限公司 XINLING ELECTRIC CO.,LTD.

C-Lin®
欣灵电气股份有限公司
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技术咨询: 400-8236-775

RECYCLABLE

国家高新技术企业 浙江省知名商号

C-Lin 欣灵

使用说明书
Products Instructions

HHS2 – 1(U)

Hour Meter

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

01A100P0

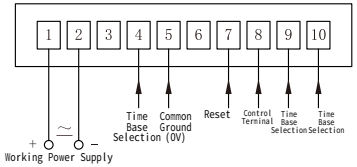
I.Overview

The HHS2 - 2 hour meter (hereinafter referred to as the hour meter) is suitable for use as a timing component in control circuits with an AC frequency of 50Hz, a power supply voltage of AC 380V or below, or a DC operating voltage of 24V.The hour meter adopts a dedicated timing chip and has the advantages of high timing accuracy, a wide timing range, and a long service life. It is widely used in the test instruments and inspection benches of various industrial and mining enterprises.

II.Main Technical Data

1.Working power supply (control power supply voltage): AC380V, AC220V, AC110V, AC36V, AC24V 50Hz; DC24V, allowing a fluctuation range of (85% - 110%) Ue;
2.Timing range: 1s - 9999m59s; 0.1m - 99999.9m; 1m - 99999h59m; 0.1h - 99999.9h;
3.Display method: Nixie tube display;
4.Reset method: Panel key reset and terminal short - circuit reset;
5.Power - off retention: 10 years;
6.Timing error: ≤ 0.01%;
7.Ambient temperature: - 5 °C - 40 °C;
8.Altitude: ≤ 2000m;
9.Humidity: When the maximum temperature at the installation site is 40 °C, the relative humidity of the air ≤ 50%. At lower temperatures, a higher relative humidity is allowed. For example, it can reach 90% at 20 °C. Special measures should be taken for condensation occasionally generated due to temperature changes.
10.Pollution degree: Level 3;
11.Installation method: Panel - mounted;
12.Conventional heating current Ith: 5A;
13.Rated insulation voltage Ui: 400V;
14.Rated impulse withstand voltage Uimp: 2.5KV.

III.Wiring Diagram

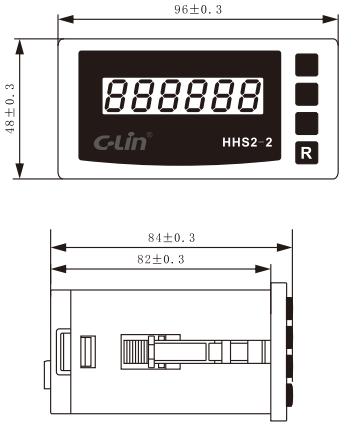


HHS2-2

HHS2－2：

1、Connect terminal ⑧ and ⑤ for timing. If immediate timing after power - on is required, short - circuit terminal ⑧ and ⑤ before power - on;
2.Short - circuit terminal ④ and ⑩: 1m - 9999h59m ;Short - circuit terminal ④ and ⑨: 0.1m - 99999. 9m;Short - circuit both ⑨ and ⑩ with ④: 0.1h - 99999.9h;Neither ⑨ nor ⑩ is short - circuited with ④: 1s - 9999m59s.

IV. Outline and Installation Dimensions (Mounting hole size: 45.5×92.5 mm)



HHS2-2

V.Instructions for Use

The timing control wires and reset control wires of this hour meter should be kept as short as possible. Avoid routing them in the same conduit or twisting them together with other wires (e.g., power supply lines or power cables). If necessary, use shielded wires.

VI.Ordering Instructions

When placing an order, the product model, voltage rating, and quantity shall be specified. If there are special requirements, they shall be additionally indicated.
Example: HHS2-2 AC220V, 100 pieces.

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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C-Lin®

欣灵电气股份有限公司

XINLING ELECTRICAL CO.,LTD.

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RECYCLABLE

国家高新技术企业 浙江省知名商号

C-Lin 欣灵

使用说明书

Products Instructions

HHS2-2

Hour Meter

Thank you very much for using the C-Lin brand hour meter.Please read this instruction manual before using the product!

01A108P0

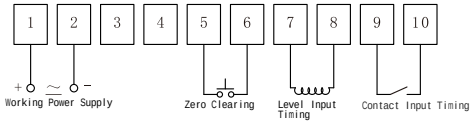
I.Overview

The HHS2-3 and HHS2-3R timers (hereinafter referred to as "timers") are designed as timing components for control circuits operating at an AC frequency of 50Hz, with a power supply voltage of AC 380V or lower, or a DC 24V operating voltage. These timers are specialized digital instruments for precision measurement of the operating time of time-delay components (e.g., switches, relays) and are widely used in industrial production environments.

II. Main Technical Specifications

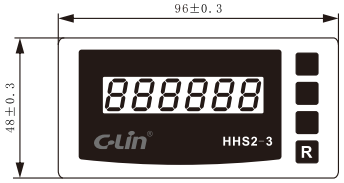
1.Operating Power Supply (Control Voltage)：
AC voltages: 380V, 220V, 110V, 36V, 24V (50Hz);
DC voltage: 24V.Allowable fluctuation range: 85%－110% of the rated voltage (Ue).
2.Timing Range：999.999s, 9999.99s, 99999.9s, 999999s, 9999min59s, 99h59min59s.
3.Display Method：Nixie tube display.
4.Reset Modes：
HHS2-3: Panel button reset, power-off reset, or terminal short-circuit reset.
HHS2-3R: Panel button reset, power-off reset, terminal short-circuit reset, or automatic reset.
5.Timing Error：≤0.3%.
6.Ambient Temperature：-5℃ to 40℃.
7.Altitude：≤2000m.
8.Humidity：When the maximum temperature at the installation site is 40℃, the relative humidity of the air shall not exceed 50%. At lower temperatures, a higher relative humidity is permissible (e.g., up to 90% at 20℃). Special measures shall be taken for occasional condensation caused by temperature changes.
9.Pollution Degree：Class 3.
10.Mounting Method：Panel mounting.
11.Conventional Heating Current (Ith)：5A.
12.Rated Insulation Voltage (Ui)：400V.
13.Rated Impulse Withstand Voltage (Uimp)：2.5kV.

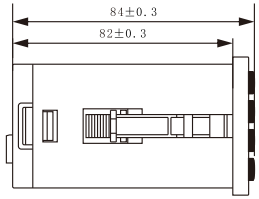
III.Wiring Diagram



HHS2-3（CSY-5E）、HHS2-3R（CSY-5ER）

IV.Outline and Installation Dimension Diagram (Installation Hole Dimensions: 45.5×92.5mm)





HHS2-3（CSY-5E）、HHS2-3R（CSY-5ER）

V.Operating Instructions

HHS2-3 (CSY-5E), HHS2-3R (CSY-5ER)

1.Contact timing: Short - circuit the contact input terminal for timing. When disconnected, the timing stops, and the data at this time is retained.
2.Level (current transformer) timing:
(1)Low level L ≤ 0.2V, high level H ranges from 2V to 30V.
(2)When the level signal changes from low level to high level, the timer starts timing; when the high level changes to low level, the timer stops timing, and the data at this time is retained.
(3)The rise or fall time of the level signal waveform should be less than 100 μs; otherwise, the timing accuracy will be affected.
3.Please carefully read the instruction manual before use. Wire according to the requirements. The short - circuit wire should be as short as possible. In case the lead wire is too long and vulnerable to interference, shielded wires must be used.

VI.Ordering Information

It is necessary to specify the product model, voltage level, and quantity. If there are special requirements, they should be additionally noted.

For example: HHS2 - 3 AC220V, 100 pieces.

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。

C-Lin 欣灵电气股份有限公司 XINLING ELECTRIC CO.,LTD

产品合格证

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