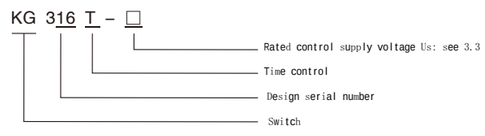
I. Overview

1.1 Scope of Application

It is applicable to control circuits with AC 50/60Hz voltage 380V and below, serving as a time - delay timing element. It can connect or disconnect the power supply of various control circuits according to a predetermined time, and is suitable for streetlights, neon lights, advertising sign lights, radio and television equipment, and various household appliances.

1.2 Model Definition



1.3 Normal working conditions and installation conditions

1.3.1 Service environment

The altitude does not exceed 2000 meters; the ambient temperature is not higher than +40℃ and not lower than -5℃; the rated control supply voltage varies within the range of 85% - 110% of the rated voltage; in a medium without severe vibration and explosion hazard, and there is no gas and dust in the medium that can corrode metals and damage insulation; in a place not affected by rain and snow.

II. Structural Features

This time - control switch adopts an 8 - bit microprocessor chip, directly packaged on the PCB board, with peripheral surface - mount components, surface mounting, LCD liquid crystal display, high - power relay output; the battery is replaceable.

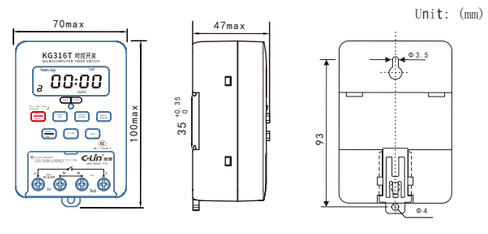
III. Technical Characteristics

3.1 Rated insulation voltage Ui: AC380V;

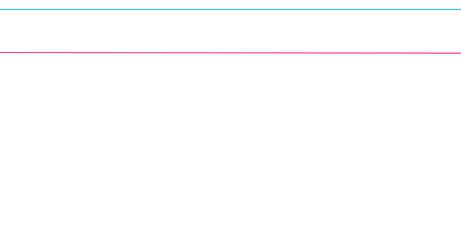
3.2 Rated impulse withstand voltage Uimp: 2.5kV;

3.3 Rated control supply voltage Us: AC50/60Hz: 220V, 380V;
3.4 Power consumption: < 5W;
3.5 Pollution degree: 3;
3.6 Enclosure protection class: IP20;
3.7 Load power: Under AC - 12 usage category, 20A AC250V (resistive);
3.8 Daily timing error: less than or equal to ±2 seconds;
3.9 Timing times: 16 groups, automatic and manual dual - purpose;
3.10 Switching time can be cycled daily or weekly;
3.11 Time - control range: 1m ~ 168h;
3.12 The coordination with the short - circuit protective device (SCPD) means that the relay should not cause harm to people and equipment under short - circuit conditions, and it is not allowed to continue using it before repair or replacement of parts.

IV. Product appearance, installation dimensions and Wiring diagram



Appearance and installation opening dimensions
(or use 35mm standard rail installation)



Wiring Diagram for Direct Control of Load

Wiring Diagram for Control of Load Via AC Contactor

V. Installation and Operation

5.1 When the keyboard is not operated, it will automatically lock after 15 seconds, and the symbol "🔒" will be displayed at the lower left corner.
5.2 Unlock: Press the 'Cancel/Restore' key 4 times in a row, it will unlock automatically, and the symbol "🔒" will disappear.
5.3 Press 'Adjust Weekday', 'Adjust Hour' and 'Adjust Minute' respectively to adjust to Beijing time.
5.4 Set the switch time.

	Key	Setting Content
1	Press the 'Timing' key	Enter the timing - on setting, displaying 1ON
2	Press the 'Adjust Weekday' key	Set the on - time during certain days, one day, or every day of the week.
3	Press 'Adjust Hour' and 'Adjust Minute' respectively	Set the on - time
4	Press the 'Timing' key	Enter the timing - off setting, displaying 1OFF
5	Press the 'Adjust Weekday' key	Set the off - time during certain days, one day, or every day of the week.
6	Press 'Adjust Hour' and 'Adjust Minute' respectively	Set the off - time
7	Repeat 1 - 6	Set the switch times for the remaining 2 - 16 times. If timing is not required, make it display: "- -: - -" .
8	Press the 'Clock' key	End the timing setting and return to the clock operation state
9	Press the 'Auto/Manual' key	Make the switch symbol '▼' point to the 'Off' position, then adjust it to the 'Auto' position.

Chinese - English Comparison

English	Mo	Tu	We	Th	Fr	SA	SU
Chinese	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday

Clock Automatic Time - Adjusting Function

In the unlocked state, first press and hold the 'Cancel/Restore' key, and press the 'Clock' key at the same time. When "7d=00" is displayed, it enters the clock automatic time - adjusting function, indicating that the time to be adjusted in a week is in seconds. "7d=--xx" indicates automatic decrease, and "7d=xx" indicates automatic increase, with a maximum adjustment range of 28 seconds. Press the 'Adjust Weekday' key to adjust the time to be adjusted each week, and press the 'Clock' key to return. After the setting is completed, it will automatically increase or decrease the time at 00:31:30 every Saturday.

VI. Operation Precautions

6.1 To prevent contact heating under strong current, be sure to tighten the screws on the terminal posts when wiring.
6.2 It is strictly forbidden to install or disassemble the product while it is energized.
6.3 Please replace the battery regularly to avoid unclear or no display caused by insufficient battery power. (The time - control switch uses a Size 7 battery)
6.4 For equipment that may cause major economic losses or personal safety hazards, please ensure that the technical characteristics and performance values have sufficient margins during design, and at the same time, dual - circuit protection and other safety measures should be adopted.

VII. Common Faults and Troubleshooting Methods

7.1 If the LCD has no display or is unclear, please replace the battery.
7.2 If the time - control switch does not work properly after being powered on: Check whether the time - period setting of the time - control switch meets the required requirements, as well as the weekday setting, and whether it is set to the "Auto" position.
7.3 When the time - control switch's output indicator light is on at the set time, but the relay does not switch: Check whether the power supply voltage is too low.

7.4 Burned - out
Product Check whether the power supply exceeds the rated power supply voltage of the product, and whether the power cord is wrongly connected.
7.5 Troubleshooting
When a fault occurs in the product, first disconnect the power supply, connect the wires correctly according to the wiring diagram, and operate according to the operation precautions after checking that the circuit is correct. For products that are indeed quality problems of the product itself, please contact the local distribution company or our company.

VIII. Transportation and Storage

During the storage and transportation of the product, it should not be affected by rain, snow, or extrusion. During storage, it should be placed in a well - ventilated place with a relative humidity (25℃±5℃) not exceeding 90%. The lower temperature limit is -25℃, and the upper temperature limit is +55℃.

IX. Unboxing and Inspection

Open the outer packaging carton and check that the packaging box should contain: a certificate of conformity and an instruction manual.

X. Ordering Instructions

When placing an order, the user should indicate the model and specifications of the product. If there are special requirements, please negotiate with the manufacturer.

XI. Company Commitment

Under the premise that the user complies with the usage, storage conditions, and the product seal is intact, within 18 months from the product's production date, if the product is damaged or cannot be used normally due to manufacturing quality problems, our company is responsible for free repair or replacement. If it exceeds the warranty period, paid repair is required. However, for damage caused by the following situations, paid repair will be carried out even within the warranty period:
(1) Due to improper use, maintenance, or storage;
(2) Self - modification or improper repair;
(3) Damage caused by falling or during installation after purchase;

(4) Due to force majeure factors such as earthquakes, fires, lightning strikes, abnormal voltages, and secondary disasters;
(5) The product's electrical life has exceeded 100,000 cycles; the mechanical life has exceeded 1,000,000 cycles.
If any issues arise, please contact the dealer or the customer - service department of our company.

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 ELECTRICAL CO.,LTD.

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国家高新技术企业 浙江省民营名牌号

C-Lin 欣灵

使用说明书
Products Instructions

KG316T

Time - control Switch

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