



KGL1 Time Switch User Manual



□ Please carefully read this User Manual before installing and operating the product. and keep this manual properly for future reference

I. Overview

1.1 Scope of Application

It is suitable for AC 50/60Hz control circuit with the voltage of 380V and below as a delay timing element to adjust the control time automatically based on the seasonal changes according to the local latitude and longitude. The product is used to turn on or turn off the power of various control circuits, suitable for street lights, neon lights, advertising sign lights, radio and television equipment and various household appliances.

Standard: GB/T14048.5

1.2 Model Definition

Rated control supply voltage U_s

Design No.

Latitude and longitude

Time switch

1.3 Normal Working Conditions and Installation Conditions

1.3.1 Working environment: the altitude does not exceed 2000 meters; the ambient temperature is not higher than +40°C and not below -5°C; the voltage variation range of the rated control power supply is 85%-110% of the rated voltage; Installed in places where there is no medium without harsh vibration or explosive hazard or the medium does not contain gas or conductive dust that causes metal corrosion or damage to the insulation free from the rain or snow erosion.

1.3.2 Vertical or horizontal installation.

KG L 1 / ☐

II. Structural Features

This time switch has an eight-bit microprocessor chip that is directly packaged on the PCB board; the chip components are used peripherally, featuring with surface mounting, and high-power relay output; its battery is replaceable.

III. Technical Features

3.1 Rated insulation voltage U_i : AC380V;

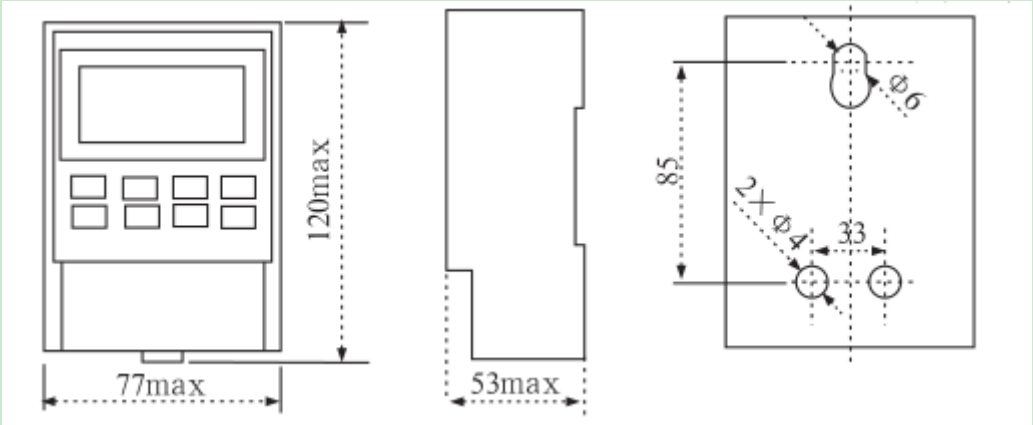
3.2 Rated impulse withstand voltage U_{imp} : 2500V;

3.3 Rated control power supply voltage: AC220V, AC380V

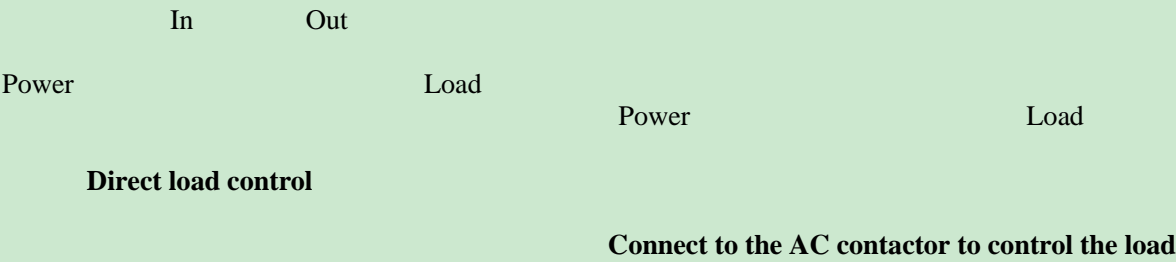
- 3.4 Use category: Ue: AC240V/380V; Ie: 3A/1.9A;
Ith: 10A; AC-15
- 3.5 Enclosure protection grade: IP50;
- 3.6 Pollution level: 3;
- 3.7 Contact capacity: 30A AC220V (resistive)
- 3.8 Time error a day $\leq \pm 2s$;
- 3.9 Built-in power supply: High-efficiency lithium battery to provide 10-year memory after power outage;
- 3.10 Mechanical life: Greater than or equal to 1 million times;
- 3.11 Electrical life: Greater than or equal to 100,000 times

4. Outline and Installation Dimensions and Wiring Diagram

Unit: (mm)



Size of outline and installation hole (or 35mm standard mounting rail used)



V. Installation and Operation

5.1 Inquire the sunset and sunrise lamp ON/OFF time of the set date

5.1.1 Short press the Set / Query key to enter the lamp ON/OFF time query, and date setting menu (left two-digit indicates year, middle two-digit indicates month, right to-digit indicates day).

5.1.2 Press the \Leftarrow , \Rightarrow keys to switch the query menu, and the corresponding menu indicator lights are lit.

5.1.3 Press the \gg key to set the query month and day parameter switching.

5.1.4 Press the + and – keys to add or minus the settings menu.

5.1.5 Press the Exit/Manual key on any level menu to exit the query menu.

5.1.6 The standby state will exit if no query status key is operated within 30s.

5.2 Parameter settings

5.2.1 Long press the setting/query key to enter the parameter setting menu.

5.2.2 Press the \Leftarrow , \Rightarrow keys to set the menu switching, and the corresponding menu indicator lights and parameters flicker.

5.2.3 Press the \gg key to set the parameter switching.

① The date menu can be switched between the left two-digit year, the middle two-digit month, and the right two-digit day.

② The time menu can be switched between the left two-digit hour, the middle two-digit minute, and the right two-digit second.

③ The longitude menu can be switched between the left two-digit longitude and the right two-digit longitude.

④ The latitude menu can be switched between the left two-digit latitude and the right two-digit latitude.

5.2.4 Sunset and sunrise time settings can be modified by adding 70 minutes and minus 70 minutes based on the standard time.

5.2.5 In the mode menu, press the + and – key to make the F-0 correspond to the all-night mode, the F-1 correspond to the half-right mode, the F-2 correspond to the dual-time chess switching. F-0 mode: 2 time points of the sunrise time to turn on the light and the sunset time to turn off the light; f-0 mode used to shield the timing ON time setting; F-1 mode: the lights are turned on at sunset and off at fixed off time at two time points. The sunrise time is invalid. The f-1 mode shields the setting of fixed on time. F-2 mode: the lights are turned on at sunset time at four time points, the lights are turned off at fixed off time, the lights are turned on at fixed on time, and the lights are turned off at sunrise time.

Note: When switching to the F-2 mode, the default timing off time of the product is 23.30, and the timing on time is 3.30.

5.2.6 Press the Exit/Manual key in the menu at any level to exit the settings menu.

5.2.7 In the setting state, the standby state will exit automatically if no any key is operated within 30s.

5.3 Product Status Settings

Long press the Exit/Manual keys in standby state to switch the automatic, on, and off states respectively:

Auto: The product light is turned on and off every day in a cycle way according to sunrise, sunset, timing off, and timing on.

On: The product work not according to the sunrise, sunset, timing off, and timing on time, and the output is turned on.

Off: The product work not according to the sunrise, sunset, timing off, and timing on time, and the output is turned off.

5.4 Longitude and latitude reference table of major cities in China

Major cities	East longitude,	Northern latitude	Major cities	East longitude,	Northern latitude
Beijing	116.5	40.0	Jinan	117.0	36.7
Hohhot	112.2	40.9	Qingdao	120.3	36.1
Shenyang	123.4	41.8	Nanjing	118.8	32.0
Dalian	121.6	39.0	Shanghai	121.5	31.2
Chuangchun	125.3	43.9	Hangzhou	120.2	30.3
Harbin	126.7	45.7	Hefei	117.3	31.9
Tianjin	117.2	39.1	Nanchang	115.9	28.7
Shijiazhuang	114.4	38.0	Changsha	113.0	28.2
Taiyuan	112.6	37.8	Nanning	108.4	22.8
Zhengzhou	113.8	34.8	Guiyang	106.7	26.6
Wuhan	114.3	30.6	Kuining	102.7	25.1
Xi'an	108.9	34.2	Fuzhou	119.3	26.1
Chengdu	104.1	30.6	Xiamen	118.1	24.4
Chongqing	106.6	29.8	Guangzhou	113.2	23.1
Lanzhou	103.6	36.0	Haikou	110.3	20.0
Yinchuan	106.4	38.5	Hong Kong	114.2	22.3
Urumchi	87.7	43.8	Macao	113.6	22.2
Lhasa	91.1	29.7	Taipei	121.5	25.0

VI. Operation Precautions

6.1 In order to prevent the contact from heating under strong current, please tighten the screws of the wiring terminal when connection.

6.2 It is strictly forbidden to install and disassemble the energized product.

6.3 The equipment that may cause major economic losses or personal safety is designed to make the technical characteristics and performance values have sufficient allowance, and safety measures such as double circuit protection should be adopted.

VII. Common Faults and Troubleshooting

7.1 The time switch works abnormally after power-on;

Check whether the time limit setting meets the specified requirements, and whether the latitude and longitude settings are set in the "Auto" position.

7.2 When the time switch setting time expires, the output indicator is on, but the relay does not convert.

Check whether the power supply voltage is too low

7.3 Product burnt

Check whether the power supply voltage exceeds the rated power supply voltage of the product and whether the power cord is connected correctly.

VIII. Transport and Storage

The product shall be free from the rain or snow erosion or squeezing during storage and transportation. and shall be stored in well ventilated places where the relative humidity ($25^{\circ}\text{C}\pm 5^{\circ}\text{C}$) does not exceed 90%. the lower limit of the temperature is -25°C . and the upper limit of the temperature is $+55^{\circ}\text{C}$.

IX. Unpacking and Inspection

Open the outer carton and check that there is the Operation Instruction in the packing box.

X. Ordering Notice

Please specify the model and specification of the product when ordering. For Any special requirement. please contact the manufacturer.

XI. Company Commitment

Under the condition that users follow the use and storage conditions and the product are well sealed, within 24 months from the production date, our company will provide repair and replacement service free of charge for any damage or abnormal operation due to poor manufacture quality. A paid repair will be provided if the warranty period expires. For any damage due to one of the following situations, a paid repair will be given even if within the warranty period:

- (1) Improper operation, maintenance, or storage;
- (2) Modified without permission or improper repair;
- (3) Damage due to falling off or caused during installation after purchase;
- (4) Force majeure such as earthquakes, fires, lightning strikes, abnormal voltages, and secondary disasters;
- (5) The electrical life of the product exceeds 100,000 times; The mechanical life is more than one million times.

If you have any question, please contact the dealer or our company's customer service department.

Customer Service Hotline: 400-826-8008



Certificate

DELIXI GROUP CO., LTD.

Name: Time switch

Model: KGL1

This product complies with the GB/T 14048.5 standard.
passes the inspection and is allowed to be shipped

Inspector: Check 01

Production date: See label on inner box

Manufacturer: Zhejiang Delixi Electrical Co., Ltd.

Address: No. 155. Zhandong Road. Liushi Town. Yueqing City. Zhejiang P/C: 325604

Tel: (86-577) 61778888

Fax: (86-577) 61778000

Customer Service Hotline: 400-826-8008

www.delixi-electric.com

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