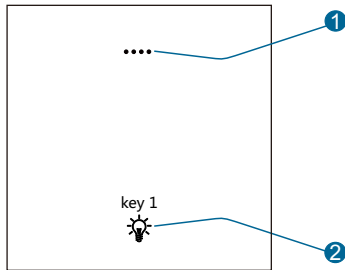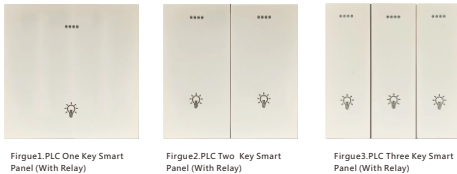# easyCtrl®

PLC One/Two/Threee Key Smart Panel (With Relay)

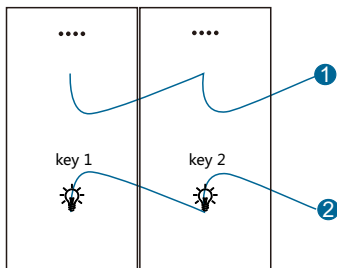| Product name	Product model
PLC One Key Smart Panel (With Relay)	PLC.KP01A
PLC Two Key Smart Panel (With Relay)	PLC.KP02A
PLC Three Key Smart Panel (With Relay)	PLC.KP03A

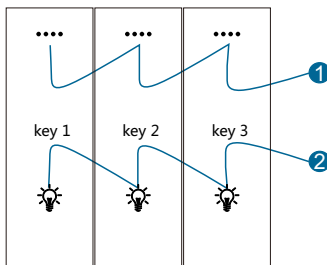## Product Manual

Release : July 19, 2023
Version : V1.0

Firgue1.PLC One Key Smart Panel (With Relay)　　Firgue2.PLC Two Key Smart Panel (With Relay)　　Firgue3.PLC Three Key Smart Panel (With Relay)
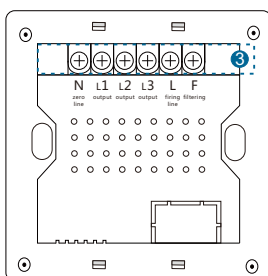

Firgue4.PLC One Key Smart Panel (With Relay)

Firgue5.PLC Two Key Smart Panel (With Relay)

Firgue6.PLC Three Key Smart Panel (With Relay)

Firgue7.back view

Product Overview

PLC One/Two/Threee Key Smart Panel(With Relay) (see Figure 1,2,3), this product is typically installed on the wall to control the light, this is a standard 86 bottom box installation of multi-panel cascade control system, with backlight LED display light and background color LED activation color LED button, can achieve multi-point control, The distributed architecture and PLC networking technology are adopted to improve the stability and reliability of the system.

Function Description

- Standard 86 bottom box installation, support multiple panels seamless cascade, making the control more convenient.
- Panel appearance color, regular color silver, gray, gold, etc., other colors customized.
- With backlit LED display light, the key can be clearly visible in low light environment, providing a better experience.
- Each key with background color LED and activation color LED, making the operation more intuitive and convenient.
- A single PLC bus can be equipped with 32 switch panels to achieve multi-point control.
- With a distributed architecture, the system exception panel can still control local lights.
- PLC networking technology is adopted to further improve the stability and reliability of the control system.

Precautions

- Please do not power operation, ensure that no short circuit can power.
- Strong electric input and output outlet with 2.5 square insulated wire.

Product Information

Product Informations: See Figures 4- 7
Product Dimensions: See Figures 6- 9
Installation opening size, see Figure 11
1. Key indicator:
- Indicator: The color of the key indicator is white.
2. Keys and panel background light (background light setting):
- Key trigger: Trigger condition, short press.
- Brightness: The backlight color is orange, and the default is 50% brightness.
- The background light can only be set by hardware configuration.
  Step 1. Press and hold the key 1 and 2 at the same time. The white LED indicator is blinking for more than 5 seconds.
  Step 2 Press the key 1 brightness increases by 10%, press the key 2 brightness decreases by 10%, 0-100% can be adjusted.
  Default background light: 50%
3. Strong current input, relay, filter interface:
- Strong current input terminal: interface 1 is the zero wire port, interface 6 is the fire wire port, the aperture can be connected to 4 square wires.
- Relay output terminal: Interface 2-4 is the relay output outlet, the aperture can be connected to 4 square wires.
- Filter terminal: Interface 5 is the filter interface, and the aperture can be connected to 4 square wires.
  Panel SNID settings (Default panel SNID:8888) :
  Meaning: It is used to distinguish multiple PLC panels on single-phase power, so that the PLC panel on the line is unique to the PLC controller.
  Step 1. Power on the panel again within 15 seconds, the background blinks.
  Step 2 .Set SNID on the PLC controller, the configuration is successful, the white LED indicator will blink three times and go off, then the configuration is successful.
  Panel group settings (Default panel group: 01) :
  Step 1. Press and hold the key 1 and 2 at the same time, the white LED indicator is blinking for more than 5 seconds.
  Step 2. Configure the software to write the address,1-32, write successfully, the white LED indicator will stop blinking.
4. Note: Panel configuration and PLC controller corresponding mode, a key occupies two channels, through the panel address corresponding relationship.
  One key occupies one address. Two keys occupie two addresses. Three keys occupy three addresse.
  Such as: One key panel, address is 1, occupy PLC controller (a total of 32 addresses), ID1.
  Such as: Two key panel, address is 2, occupy PLC controller (a total of 32 addresses), ID2\ID3.
  Such as: Three key panel, address is 4, occupy PLC controller (a total of 32 addresses), ID4\ID5\ID6.

Product Installation

See Figures 12-14
- Step 1. Disassembly port, use a small knife to pry the gap of the disassembly port can be removed, 4 disassembly port, same as above.
- Step 2. Mounting port, mounting screw with M4*25, install to the appropriate position.
- Step 3. During installation, check whether the panel is installed in the wrong direction.
- Step 4. After installation, remove the key cover, align it with the hole, and install it properly.

Safety Warning ⚠ WARNING

- Tightening torque should not exceed 0.4 Nm.
- Installation location:Wall or distribution box
- Do not connect the YC-BUS interface incorrectly, as it may damage the equipment.
- The YC-BUS interface must not be connected to AC power; otherwise, it will damage all devices on the bus.
- Ensure a good ventilation environment.
- Do not expose to rain, contact with other liquids, or corrosive gases.

Packing List

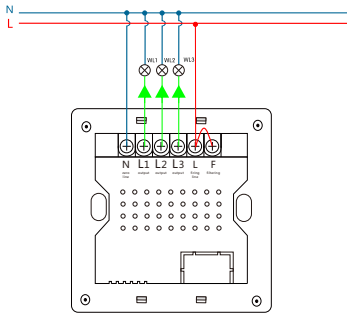- Smart key panel*1/User Manual*1/Certificate of Conformity*1
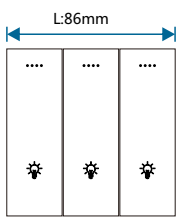
Figure 8. Intelligent lighting switch wiring diagram
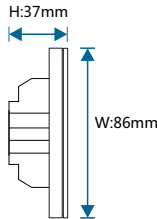

L:86mm   H:37mm   W:86mm

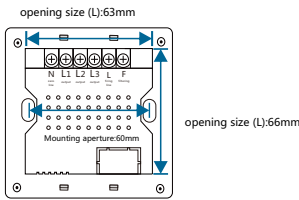Figure 9 Dimensional Drawing - Front View   Figure 10. Dimensional Drawing -Sideview

opening size (L):63mm

opening size (L):66mm

Mounting aperture:60mm

Figure 11.Installation hole position diagram

Panel cover   Panel base   base
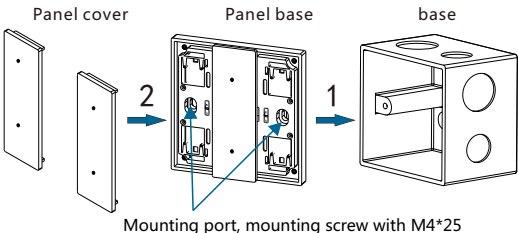
2   1

Mounting port, mounting screw with M4*25

Figure 12. Panel   Figure 13. Mounting port   Figure 14. Mounting direction

Technical support

Service Hotline: 86-18029750069

working hours: 9:00-12:00,13:00-18:00,From Monday to Friday)

Email:ceshi@easyctrlgz.com

website: http://www.easyctrlgz.com

Technical Parameters

Basic Parameters

Operating Voltage	AC220V ±10%
Gross Power	3300W
Single Current	5A
Rated Frequency	50/60Hz
Number Of Keys	one/two/three keys
Relay Output	one/two/three circuits
PLC Communication Distance	300 meter
Networking Mode	PLC networking

External Environment

Operating Temperature	-5℃~45℃
Operating Relative Humidity	≤90%
Storage Temperature	-20℃~60℃
Storage Relative Humidity	≤93%

Product Specifications

Dimensions (L*W*H)	86mm*86mm*37mm(see Figure 9-10)
Net Weight	PLC.KP01A≤153g/pcs PLC.KP02A≤166g/pcs PLC.KP03A≤196g/pcs
Enclosure Material	plastic
Installation Method	standard 86 bottom box mounting(see Figure 12-14)
Opening Size (L * W)	63mm*66mm , bottom box depth is greater than 40mm(see Figure 11)

System Diagram

Notebook

Mobile terminal (IOS/Android)

N(neutral line)
L1(phases A)
L2(phases B)
L3(phases C)

PLC bus signal output

AC 220V INPUT

CAT5E UTP

WIFI