

operating manual

Operating manual
Please read and understand the instructions before installing, adjusting and repairing the equipment.
Dangei
Dangerous voltage.Can cause death or serious injury.
Before servicing the equipment, disconnect and lock all power supplies to the equipment.
Attention
The reliable function of a device is determined only by specific components.
Install
See figure for installation dimensions I (单位: mm)
See the table below for the installation dimensions of various buttons:

type	a	b
Flat button		
High button		
Button with light		
30Mushroom button	≥50	≥32
Short handle selection button		
Key button		
indications		
40Mushroom button		
Long handle selection button	≥50	≥42
Emergency stop button		
60Mushroom button	≥62	≥62

Outline dimensional drawing II (units: mm)

1) All types of button dimensions

type	a	b
Flat button	Φ29	13
High button	Φ29	19
Selection button	Φ29	26.5
Key button	Φ29	41.1
30Mushroom button	Φ30	25
40Mushroom button	Φ40	25
60Mushroom button	Φ60	26
Push - pull Emergency stop button	Φ40	29
30Rotate release emergency stop button	Φ32	32.5
40Rotate release emergency stop button	Φ40	34.2
30Key emergency stop button	Φ32	51.5
40Key emergency stop button	Φ40	52.5

2) Indicator mounting size figure III (units: mm)

Installation procedure figure IV

- 1) Take out the head and push the sealing ring to the shown position (close to the metal parts) to smooth.
- 2) Insert the head into the mounting hole of the mounting panel, rotate the middle seat to an appropriate position on the other side of the panel, buckle it in and rotate it in place (do not push the push rod out of the button head during installation).
- 3) Tighten the two fastening screws on the center seat in a balanced way with a screwdriver, and the torque of the metal center seat is less than or equal to 1Nm; Plastic seat torque ≤0.8Nm. The standard for judging tightening is to swing the head radially at 30N force without shaking the head and middle seat.
- 4) Fasten the switch element into the center seat. If there is a light-emitting element, fasten the light-emitting element into the middle position on the center seat. Pay attention to check whether the buckle is fully fastened.
- 5) Installation inspection, operation button several times should be no stuck phenomenon, otherwise adjust the two fastening screws on the seat, keep consistent tightness can be eliminated.

Installation instructions

The thickness of the installation panel is 1 mm to 6mm for buttons and 1 mm to 7mm for indicators. Button can be installed with 2 layers of 6 switch components at most, the firstLayer 2 components can be installed only after Layer 2 switch components and wiring are completed. The light emitting element can only be installed in the middle position of the first layer, and no switch element can be installed after the light emitting element (that is, only 4 switch elements can be installed with the light button). The trigger emergency stop button can only be installed with two switching components at most. When wiring, the terminal screw tightening torque is 0.8 ~ 1.0Nm. All buttons and knobs have their own operating force limit. The disassembly Angle of the switch element is ≤15°.

Wiring

Type of wiring terminal

Screw connection:screw specification is M3.5×6-7.8×7.8。

Type of wire

- 1) A thin wire with a jacket: 2 X 0.5~1.5mm2
- 2) Solid wire without sleeve: 2 X 1~2.5mm2
- 3) Solid conductor with sleeve: 2 X 0.5~0.75mm2
- 4) A thin wire with a jacket: 2 X 1~1.5mm2 (Suitable for compact series)

Fastening torque

Screw fastening torque of metal coupling seat≤1Nm.

Screw fastening torque of plastic coupling seat≤0.8Nm.

Screw fastening torque of terminal: 0.8~1.0Nm。

When used with XK series button box/control panel box, it is recommended to use with PB1-F-M mounting plate, torque ≤0.3Nm.

Dimensions of screwdriver

recommend: Philips H2 φ6

technical specification

1)air temperature

Working temperature: -25℃~+70℃

storage temperature: -40℃~+80℃

2)altitude≤ 2000m

3)Atmospheric relative humidity

When the highest ambient temperature is +40℃, the relative humidity of the air does not exceed 50%. A relatively high relative humidity is allowed at a lower temperature. The monthly average maximum relative humidity in the wettest month is 90%, and the monthly average minimum temperature in the month is +25 ° C. Measures must be taken because the temperature change occurs on the product surface of condensation.

4)Pollution level 3,When the actual working voltage is greater than 500V, the switching element pollution level is 2.

5)The installation category of the button is II.

6)Protection class:

Button head IP65

Light emitting element and switching element IP20

7)Dielectric property:

Electrical clearance ≥5.5mm, creepage distance ≥10mm.

8)Power frequency withstand voltage:

1890V AC effective value 50Hz·5s

9)Impulse tolerance voltage

6000V

10)Luminous element EMC

Electric fast transient pulse anti-interference degree: 2KV/5KHz, duration ≥1min

Surge (impact) immunity: 2KV line to ground, 1KV line to line, pulse interval 1min

Basic parameter

1) Rated insulation voltage Ui: AC600V

2) Conventional heating current Ith:10A

3) Category of use: AC-15、DC-13、AC-12、DC-12

The rated working current corresponding to the rated working voltage is as follows

Type	Ue	440V	380V	220V	110V	24V
AC-15	Ie	4A	4A	6A	6A	6A
AC-12	Ie	10A	10A	10A	10A	10A
Type	Ue	220V	110V	48V	24V	/
DC-13	Ie	0.4A	1.2A	4A	6A	/
DC-12	Ie	1A	3.5A	8A	10A	/

4)The color and rated working voltage of the light-emitting element with lamp button are red, green, yellow, blue and white respectively

The rated working current corresponding to the rated working voltage of the luminescent element is shown in the table

Power supply	Rated voltage	Rated current	Rated voltage	Rated current
AC/DC	5V	≤30mA	15V	≤20mA
	6V	≤30mA	30V	≤20mA
	12V	≤30mA	36V	≤20mA
	24V	≤20mA	63V	≤20mA
	48V	≤20mA	75V	≤20mA
	110V	≤20mA	150V	≤20mA
	127V	≤20mA	220V	≤20mA
AC	220V	≤20mA	230V	≤20mA
	240V	≤20mA	250V	≤20mA
	380V	≤15mA	270V	≤15mA

5)The indicator color and rated voltage are red, green, yellow, blue, and white

The rated working current corresponding to the rated working voltage of the indicator is shown in the table

Power supply	Rated voltage	Rated current	Rated voltage	Rated current
AC/DC	5V	≤45mA	6V	≤45mA
	12V	≤45mA	15V	≤20mA
	24V	≤20mA	36V	≤20mA
	30V	≤20mA	63V	≤20mA
	48V	≤20mA	110V	≤15mA
	75V	≤20mA	150V	≤15mA
	127V	≤15mA		
AC	220V	≤20mA	230V	≤20mA
	240V	≤20mA	250V	≤20mA
	270V	≤20mA	380V	≤20mA
	440V	≤20mA		
DC	220V	≤15mA		

Figure I

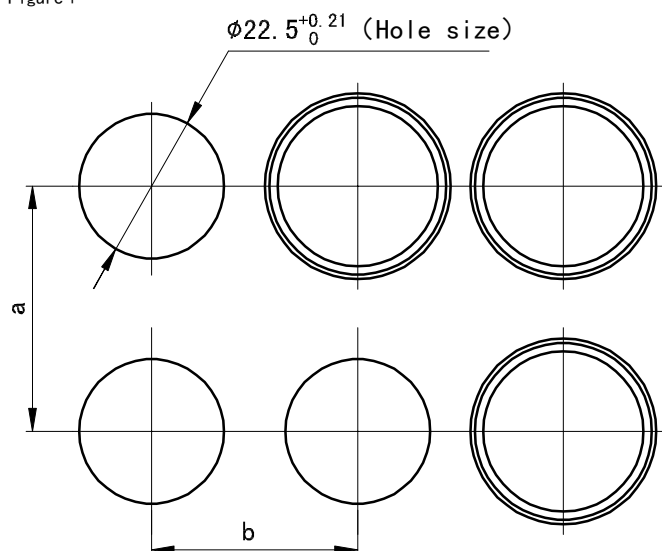
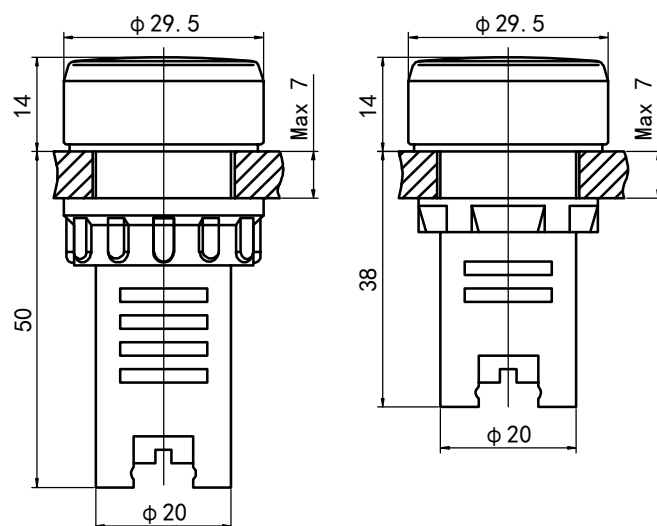


Figure III



※ Long case for DC220V indicator light, short case for the rest.

Please refer to the product for further data and attachments


※  Indicators and LED light elements are only used on Siemens instruction devices, not for everyday room lighting.

Figure II

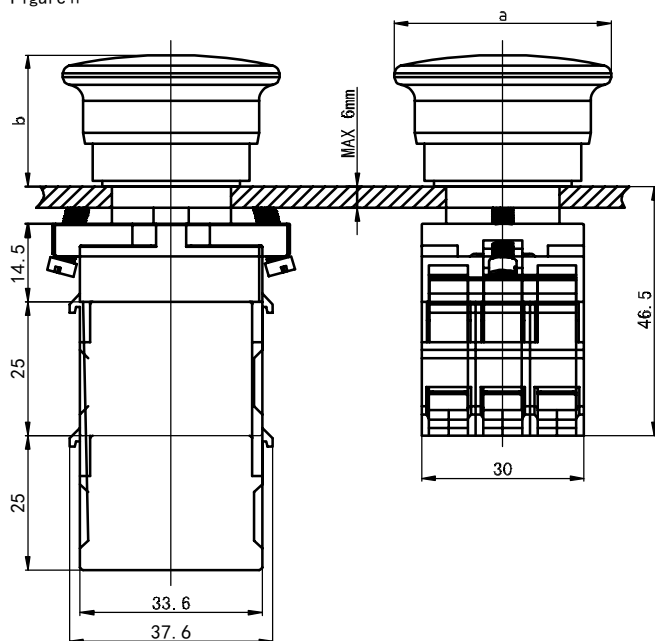


Figure IV

