

# CCC, CE

## Emergency & Mushroom Switch

LA39-B series

**QUISURE**

*Keep quick, Make sure*

ISO9001:2015

QUALITY GUARANTEED

### Model definition

La39 -     /

Separated into A<sub>1</sub>A<sub>2</sub>A<sub>3</sub> B<sub>1</sub>B<sub>2</sub>B<sub>3</sub> C<sub>1</sub>C<sub>2</sub>C<sub>3</sub> according to the different actuators and holders

The code and serial number of the pushpushbutton code are issued by Shanghai Electrical Apparatus Research Institute.

[1] Num of NO; [2] Num of NC; [3] Auxiliary model

| Letter | Meaning                        | Letter | Meaning                                   | Letter | Meaning                                     |
|--------|--------------------------------|--------|-------------------------------------------|--------|---------------------------------------------|
|        | Normal Pushbutton              | Z      | Emergency stop Pushbutton                 | XS     | Short-handle three-position selector switch |
| D      | Illuminated Pushbutton         | ZY     | Key-reset emergency stop pushbutton       | CX     | Long-handle two-position selector switch    |
| T      | Maintained Pushbutton          | Y      | Two-position key switch                   | CXS    | Long-handle three-position selector switch  |
| M      | Mushroom Pushbutton            | YS     | Three-position key switch                 |        |                                             |
| MT     | Maintained mushroom Pushbutton | X      | Short-handle two-position selector switch |        |                                             |

[4] Color code of the Pushbutton, action function and pull-out position of the selector switch and key switch

| Red | Green | Yellow | Blue | White | Black |
|-----|-------|--------|------|-------|-------|
| r   | g     | y      | b    | w     | k     |

| Action function |             |                  | Key pull-out position  |                          |                         |
|-----------------|-------------|------------------|------------------------|--------------------------|-------------------------|
| f               | fu          | ffu              | a                      | ao                       | au                      |
| Left reset      | Right reset | Left Right reset | Pull out from the left | Pull out from the middle | Pull out from the right |

[5] Voltage code of the indicator

| Code         | 21      | 22  | 23  | 24  | 25  | 26   | 27   | 28   | 31         | 32   |
|--------------|---------|-----|-----|-----|-----|------|------|------|------------|------|
| Power Supply | AC · DC |     |     |     |     |      |      | DC   | 50-60Hz AC |      |
| Voltage      | 6V      | 12V | 24V | 36V | 48V | 110V | 127V | 220V | 220V       | 380V |

6 Humid thermal type is added with “TH”

Technical Data

|                                      |                                                                                                                                                                                                                          |                                                    |
|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Rated Capacity                       | Snap-action type AC-15 220V/2.5A 380V/1.5A 660V/0.8A                                                                                                                                                                     | DC-13 24V/3.6A 48V/3A 110V/1A 220V/0.4A 440V/0.25A |
|                                      | Slow-action type AC-15 220V/6A 380V/4A 660V/2A                                                                                                                                                                           | DC-13 24V/6A 48V/3A 110V/1A 220V/0.5A 440V/0.25A   |
| Contact resistance                   | silver alloy contact≤50mΩ                                                                                                                                                                                                |                                                    |
| Rated impulse withstand voltage Uimp | AC 2500V 50Hz·1min                                                                                                                                                                                                       |                                                    |
| Mechanical endurance                 | Momentary Pushbutton≥3×10 <sup>6</sup> times, selector switch≥30×10 <sup>4</sup> times, key switch≥5×10 <sup>4</sup> times, emergency stop Pushbutton≥5×10 <sup>4</sup> times                                            |                                                    |
| Electric life                        | ≥60×10 <sup>4</sup> times                                                                                                                                                                                                |                                                    |
| Conventional thermal current         | I <sub>th</sub> 10A                                                                                                                                                                                                      |                                                    |
| Rated insulation voltage             | U <sub>i</sub> AC660V                                                                                                                                                                                                    |                                                    |
| Ambient temperature                  | -25℃ ~ +55℃                                                                                                                                                                                                              |                                                    |
| Protection class of the front part   | Defaulted as IP54. Please mark “-IP65” after the model when ordering the products if IP65 is required; the key button is IP40.<br>The flat head circular button of LA39-A /B type can be equipped with F1 to become IP67 |                                                    |

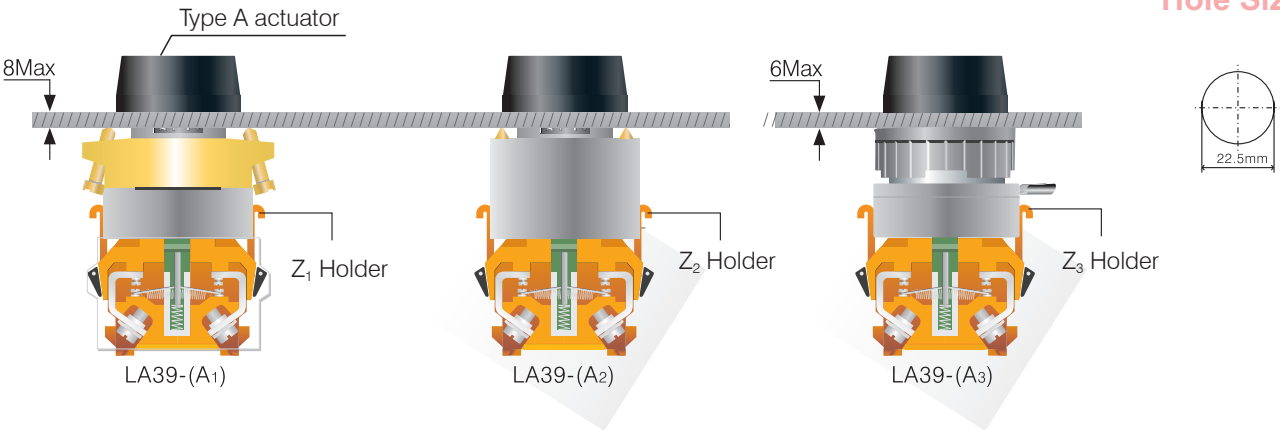
Component Materials

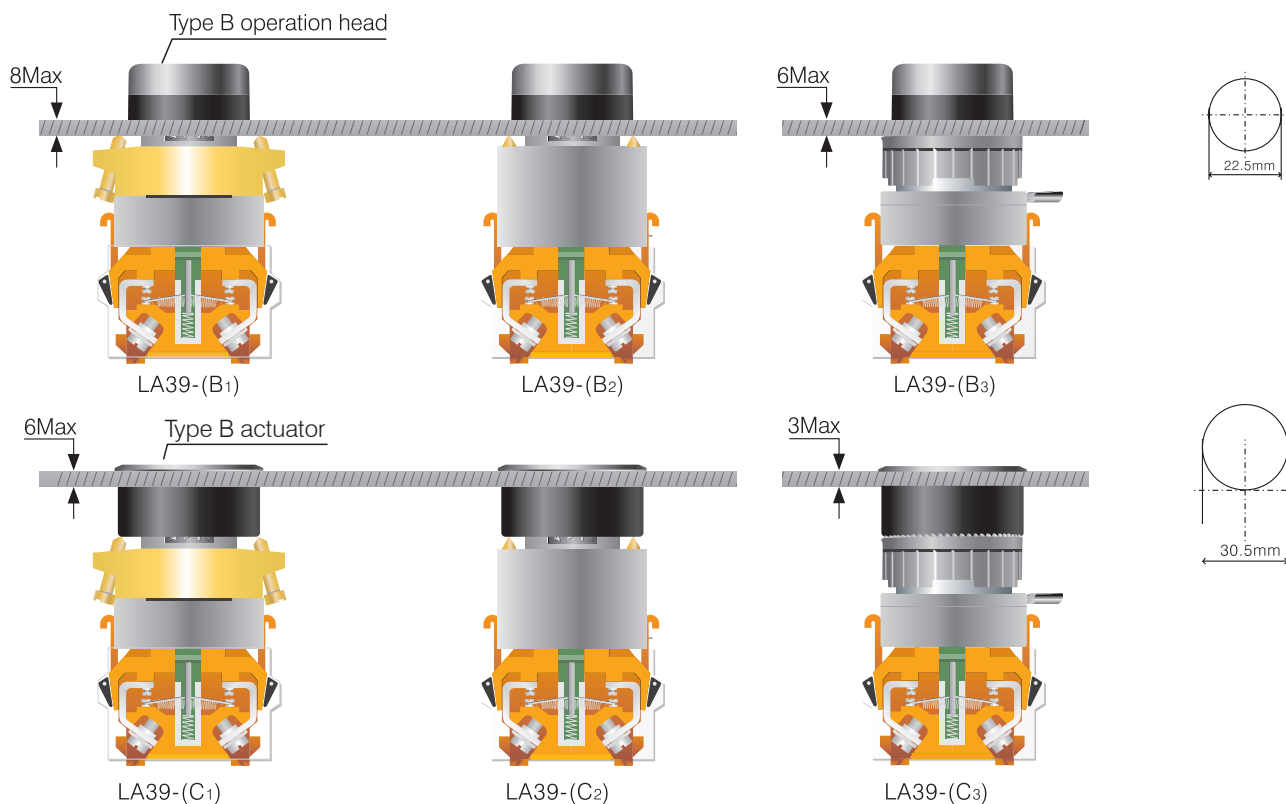
| Outer Ring of Actuator | Holder       | Actuator | Contact | Switch Shell | Contact Chip |
|------------------------|--------------|----------|---------|--------------|--------------|
| AL Black               | Zn or PBT.PA | PC       | AgNi    | PC           | Cu           |

Standards

IEC 60947/GB 14048.5

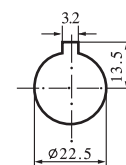
Hole Size





### Features:

1. LA39-(A<sub>1</sub>B<sub>1</sub>C<sub>1</sub>): have distinctive visual profile with elegant lines. The inclined screws are used for installation and fixation, which meets European and American strict, solid and reliable project design philosophy.
2. LA39-(A<sub>2</sub>B<sub>2</sub>C<sub>2</sub>): have clear visual arrangement. The high-strength PBT plastic parts are combined with the straight screws for fixation, which not only continues the stable and solid feature of A1B1C1, but also considers the manufacturing cost. It is the simplified type of A1B1C1 to provide the multiple economic options to the users.
3. LA39-(A<sub>3</sub>B<sub>3</sub>C<sub>3</sub>): The nuts are used for fixation, simple and easy, which can reduce the installation difficulty and the work load of the users. The installation reliability may be reduced due to the influence of ambient temperature. It is suggested that such installation mode shall not be used when the selector switches and key switches which have switching work status are used. The selector switches cannot be used when C3 is selected. The retainer ring shall be installed when A3 and B3 choose the selector switches. The hole opening size is shown on the right figure.



# CCC, CE

## Emergency & Mushroom Switch

LA39-B series

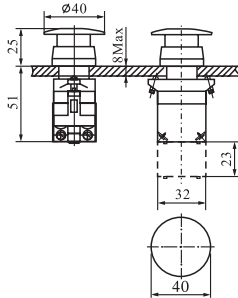
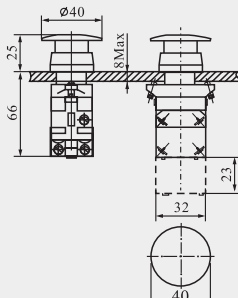
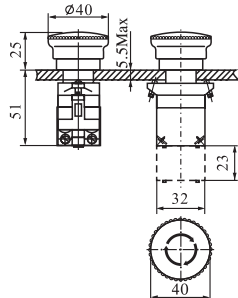
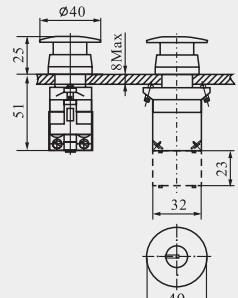
**QUISURE**

Keep quick, Make sure

ISO9001:2015

QUALITY GUARANTEED

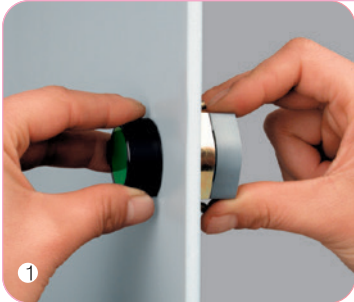
### Model List

| Name                                   | Type                                                                                                                         | Work Status                                              | Model                                                                                                                                                                                                                                                                                                                                                                                           | Color                                                  | Lamp Voltage                                                                                                                                                      | Appearance dimension                                                                  |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Mushroom Pushbutton                    | <br>Note: $\varnothing 40 \varnothing 60$   | Momentary<br><br>Maintained                              | LA39-B <sub>2</sub> -  M/ <br>LA39-B <sub>2</sub> -  MT/    | opaque<br>red-r<br>green-g<br>yellow-y<br>black-k      |                                                                                                                                                                   |    |
| Illuminated Mushroom Pushbutton        | <br>Note: $\varnothing 40 \varnothing 60$   | Momentary<br><br>Maintained                              | LA39-B <sub>2</sub> -  MD/ <br>LA39-B <sub>2</sub> -  MTD/  | transparent<br>red-r<br>green-g<br>yellow-y<br>black-k | LED LS<br>21-AC.DC 6V<br>22-AC.DC 12V<br>23-AC.DC 24V<br>24-AC.DC 36V<br>25-AC.DC 48V<br>26-AC.DC 110V<br>27-AC.DC 127V<br>28-DC 220V<br>31-AC 220V<br>32-AC 380V |   |
| Emergency Stop Pushbutton              | <br>Note: $\varnothing 40 \varnothing 60$ | Press to lock,<br>Twist<br>clockwise to<br>reset         | LA39-B <sub>2</sub> -R  Z/                                                                                                                                                                                                | opaque<br>red-r                                        |                                                                                                                                                                   |  |
| Key to Reset Emergency Stop Pushbutton | <br>Note: $\varnothing 40$                | Press to lock,<br>Twist the key<br>clockwise<br>to reset | LA39-B <sub>2</sub> -R  ZY/                                                                                                                                                                                               | opaque<br>red-r                                        |                                                                                                                                                                   |  |

### Description:

-  before the oblique line shall be filled with the number of NO and NC contacts.
  -  after the oblique line shall be filled with the color,  shall be filled with the voltage class of the light.
  - The light source of the illuminated pushbutton shall all be high-bright pure LED.
  - If Z<sub>1</sub> and Z<sub>3</sub> holders are required during ordering, B<sub>2</sub> in the model can be changed to B<sub>1</sub> or B<sub>3</sub>.  
Note: please add "-60" after the model if  $\varnothing 60$  mushroom actuator is required. No mark is required when it is  $\varnothing 40$ .
- The emergency stop pushbutton shall be used with slow-action type base.

How to install?



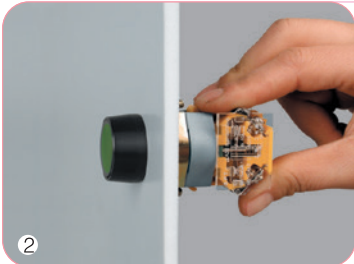
Insert the actuator into the installation hole in the front of the panel and rotate it into the holder. Then tighten the fixing screws on both ends evenly (no excessive force is allowed. The maximum torque is 25N-cm). If the panel is made of other non-metal materials such as plastic, a mounting plate can be backed on the panel (refer to accessory F5) before installation. When the diameter of the installation hole is 25mm, a piece of Ø25 mounting plate can be backed on the panel (refer to accessory F6) before installation.

For the Pushbutton with Z<sub>2</sub> holder, disassemble the switching elements with the holder together.

For the Pushbutton with Z<sub>2</sub> holder, disassemble the switching elements before installing the holder.

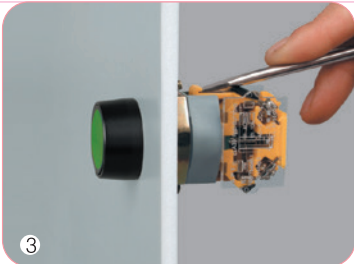
For the Pushbutton with Z<sub>3</sub> holder, disassemble the switching elements first. Insert the holder into the actuator and then fasten the nuts on the holder after turning the holder clockwise.

Note: if the Pushbutton is blocked after installation, adjust the two fixing screws on the holder to keep the same tightness.



Buckle the switching elements directly. The actuator symbol can be installed directly in the front (normally, it has been installed before out of the factory). When the illuminated pushbutton is installed, buckle the lampholder first and switching elements successively.

Note: after installation, check if the buckle of the switching elements is completely locked.



Remove the switching elements or lampholder: remove the locked assemblies freely and easily by lifting the buckle of the locking system with a screwdriver.

Hint: the white point of the short handle and the tip of the long handle shall be upward during the selector switch installation.

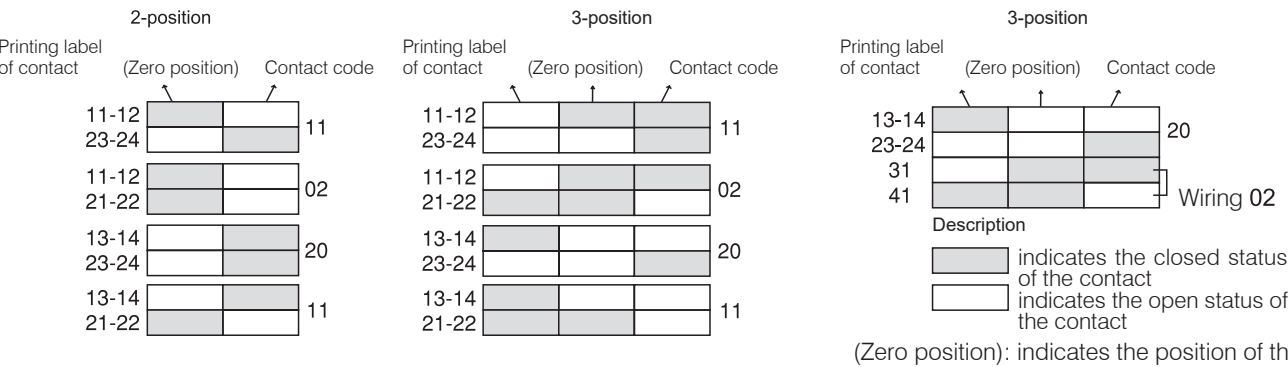
Hole Size

| Type AB Normal Pushbuttons, Illuminated Pushbuttons, Key switches and selector switches              | Type A.B Mushroom Pushbuttons and Long-handle selector switches | Type C, Normal Pushbuttons, Illuminated Pushbuttons, Key Pushbuttons and selector switches | Type C Mushroom Pushbuttons and Long-handle selector switches |
|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------|
| <p>Note: the minimum size shall be 35×50 when Z<sub>3</sub> holder is selected for installation.</p> |                                                                 |                                                                                            |                                                               |

Printing Label of Contact

The figures of the contact wiring terminal are expressed by two digits, “1” at tens indicates the 1<sup>st</sup> pair of contacts on the first pitch of switching element, and “2” at tens indicates the 2<sup>nd</sup> pair of contacts on the first pitch of switching element. “1 and 2” at units indicates the two wiring terminals of the NCcontact, and “3 and 4” at units indicates the two wiring terminals of NOcontact.

Functional Diagram for Switching Elements of selector switches and Key switches



# CCC, CE

## Emergency & Mushroom Switch

LA39-B series

**QUISURE**

*Keep quick, Make sure*

ISO9001:2015

QUALITY GUARANTEED

### Accessories

| Name                | Type                                                                                | Model | Material        | Applications                                                                                                                                                                                  |
|---------------------|-------------------------------------------------------------------------------------|-------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protective cap      |    | F1    | Silicone        | It is installed on the Pushbutton actuator to resist the water and dust. The protection class reaches IP67.                                                                                   |
| Guard Cover         |    | F2    | Stainless steel | It is installed on the Pushbutton actuator to prevent bumping and misoperation.                                                                                                               |
| Protective Cover    |    | F3-1  | Plastic         | It is installed on the actuator of the flat round pushbutton to prevent bumping and misoperation. It can be sealed off.                                                                       |
|                     |   | F3-2  | Plastic         | Plastic It is installed on the actuator of the short-handle selector switch, illuminated selector switch and key switch to prevent bumping and misoperation. It can be sealed off.            |
|                     |  | F3-3  | Plastic         | It is installed on the actuator of Ø40 mushroom pushbutton, Ø40 emergency stop pushbutton, and key-reset emergency stop pushbutton to prevent bumping and misoperation. It can be sealed off. |
| Joint Guard Cover   |  | F4    | Plastic         | It is installed behind the wiring screws of the switching element to prevent electric shock.                                                                                                  |
| 22mm Mounting Plate |  | F5    | Iron            | The mounting plate shall be provided to improve the strength when the box panel is made of plastic.                                                                                           |
| 25mm Mounting Plate |  | F6    | Iron            | This mounting plate shall be provided when the hole size on the panel is Ø25.                                                                                                                 |

# CCC, CE

## Emergency & Mushroom Switch

LA39-B series



| Name                            | Type                                                                                | Model                                                                    | Material       | Applications                                                                                               |
|---------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------|----------------|------------------------------------------------------------------------------------------------------------|
| 30mm Diameter<br>–altering Ring |    | F7                                                                       | Plastic        | This Diameter –altering Ring shall be provided when the hole size on the panel is Ø30.                     |
| 30mm Diameter<br>– altering Nu  |    | F8                                                                       | Aluminum alloy | It is used for the panel with hole size of Ø30 and also can achieve the effect of an ultrathin pushbutton. |
| Round<br>inscription label      |   | F9                                                                       | Plastic        | It is installed in the transparent pushbutton chip of the round Pushbutton as the symbol indication.       |
| Square<br>inscription label     |  | F10                                                                      | Plastic        | It is installed in the transparent pushbutton chip of the square Pushbutton as the symbol indication.      |
| Label holder                    |  | F11-10<br>Written Area:<br>25×10mm<br>F11-18<br>Written Area:<br>25×18mm | Plastic        | It is hung on the Pushbutton or indicator as the symbol indication or literal description.                 |
| Label Plate                     |  | F12 (Round)<br>F12a (Square)                                             | Plastic        | It is hung on the Pushbutton or indicator as the symbol indication or literal description.                 |

# CCC, CE

## Emergency & Mushroom Switch

LA39-B series



| Name                                | Type                                                                                | Model   |     | Material | Applications                                                                                                                                                                                                                       |
|-------------------------------------|-------------------------------------------------------------------------------------|---------|-----|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Warning Ring                        |    | F13-60  | Ø60 | ABS      | It is used for emergency stop pushbuttons                                                                                                                                                                                          |
|                                     |                                                                                     | F13-90  | Ø90 |          |                                                                                                                                                                                                                                    |
| Yellow Guard Ring                   |    | F14a-40 | Ø40 | ABS      | It is used to highlight the visible caution and protect the mushroom pushbutton to prevent bumping and misoperation. (Note: F14a-40 cannot be used for those emergency stop pushbutton models which require resetting by rotating) |
|                                     |                                                                                     | F14a-60 | Ø60 |          |                                                                                                                                                                                                                                    |
|                                     |   | F14b-60 | Ø60 |          |                                                                                                                                                                                                                                    |
|                                     |                                                                                     | F14b-90 | Ø90 |          |                                                                                                                                                                                                                                    |
| Diameter –altering Nut of Indicator |  | F15-25  | Ø25 | ABS      | Ø22mm indicator can be installed on the panel with the hole size of Ø25 or Ø30mm when it is used.                                                                                                                                  |
|                                     |                                                                                     | F15-30  | Ø30 |          |                                                                                                                                                                                                                                    |
| Tightening Wrench of Indicator      |  | F16     | Ø22 | PC       | It can improve the installation quality and reduce the work load of the labors.                                                                                                                                                    |
| Symbol Cap of Indicator             |  | F18     |     | POM      | It is used for the symbol printing or literal description of the indicator.                                                                                                                                                        |

# CCC, CE

## Emergency & Mushroom Switch

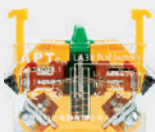
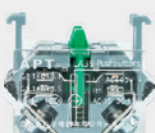
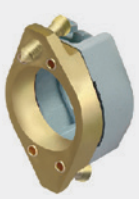
LA39-B series

**QUISURE**

*Keep quick, Make sure*

ISO9001:2015

QUALITY GUARANTEED

| Name          | Type                                                                                                     | Model                           | Material | Applications                                                                                                                                                                    |
|---------------|----------------------------------------------------------------------------------------------------------|---------------------------------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Blanking plug |                         | F19    Ø22                      | ABS      | It is used to block the reserved holes or redundant holes.                                                                                                                      |
| Switch Seat   | <br>(quick-action type) | C01    C20<br>C10    C11<br>C02 | PC       | It is installed on the end of the button to increase or reduce the contacts. The two digits in the model indicate the number of the normally open and normally closed contacts. |
|               | <br>(slow-action type)  | S01    S20<br>S10    S11<br>S02 | PC       | It is installed on the end of the button to increase or reduce the contacts. The two digits in the model indicate the number of the normally open and normally closed contacts. |
| Lamp holder   |                       | D/ ■ ■ ■                        | PA       | It is installed between the middle seat and base and used for the buttons with light. Model ■ ■ ■ indicates the color and ■ ■ indicates the voltage level code.                 |
| Holder        |                       | Z <sub>1</sub>                  | Zn+PBT   | It is used to fix the button.                                                                                                                                                   |
| Holder        |                       | Z <sub>2</sub>                  | PBT      | It is used to fix the button.                                                                                                                                                   |
| Holder        |                       | Z <sub>3</sub>                  | PA       | It is used to fix the button.                                                                                                                                                   |

**QuiSure - Your Electrical Partner**

Bring China's leading electrical products to the world.

RFQ: rfq@quisure.com

Support: support@quisure.com

Website: <https://quisure.com>

# CCC, CE

## Emergency & Mushroom Switch

LA39-B series

**QUISURE**

*Keep quick, Make sure*

ISO9001:2015

QUALITY GUARANTEED

| Name                             | Type          | Model                                     |                                           | Description                                          |
|----------------------------------|---------------|-------------------------------------------|-------------------------------------------|------------------------------------------------------|
| Key Pushbuttons                  | (A)  (C)      | Two-position                              | LA39-A-Y<br>LA39-C-Y                      | Type (C) key pushbuttons are special for the trains. |
|                                  |               | Three-position                            | LA39-A-YS<br>LA39-C-YS                    |                                                      |
| Mushroom Pushbuttons             | (A)  (B)  (C) | Normal pushbuttons                        | LA39-A-M/□<br>LA39-B-M/□<br>LA39-C-M/□    | The color is filled in the  after the oblique line.  |
|                                  |               | Maintained pushbuttons                    | LA39-A-MT/<br>LA39-B-MT/<br>LA39-C-MT/    |                                                      |
| Illuminated Mushroom Pushbuttons | (A)  (B)  (C) | Normal pushbuttons                        | LA39-A-MD/<br>LA39-B-MD/<br>LA39-C-MD/    | The color is filled in the  after the oblique line.  |
|                                  |               | Maintained pushbuttons                    | LA39-A-MTD/<br>LA39-B-MTD/<br>LA39-C-MTD/ |                                                      |
| Emergency Stop Pushbuttons       | (A)  (B)  (C) | LA39-A-Z/<br>LA39-B-Z/<br>LA39-C-Z/       |                                           | The color is filled in the  after the oblique line.  |
| Key Emergency Stop Pushbuttons   | (A)  (B)  (C) | LA39-A-ZY/R<br>LA39-B-ZY/R<br>LA39-C-ZY/R |                                           |                                                      |
|                                  |               |                                           |                                           |                                                      |