LA39-E Pushbutton

LA39-E series Ø16 Pushbutton are featured as clever design, good visual appearance, and exquisite body, simple and easy installation as well as reliable contact. They are the best choice for the users requiring miniaturized and intensive control of the panel.

Visual Appearance

The actuators of the indicators and illuminated pushbuttons have bright color with soft and distinguished light, including a variety of colors such as red, green, yellow, blue and white for option. This series of Pushbuttons have the complete forms and types. Their actuator shapes include round, square and rectangular types, which can greatly satisfy the demands of the users.

Structural Features

This series of Pushbuttons consist of two systems – the threaded sleeve part that constitutes the actuator operation mechanism and the base part that constitutes the contact actuation mechanism. The connection of all structures is the internationally advanced no-fastener and buckle Maintained connection structural form with convenient installation and dismantling, safe and reliable. The anti-rotation structure is used to ensure correct pushbutton installation positioning and prevent looseness.

Contacts

The base part has one NOand one NCor two NOand two NCcontacts. It is designed with contact self-cleaning mechanism and is a single-break Momentary switch. The contacts together with the contact chip are completely gold plated, which is a practical guarantee for the reliable contact and stable electric performance.

Types and Specifications

LA39-E series Pushbuttons have the complete types and specifications, normally including the normal pushbuttons, illuminated pushbuttons, pushbuttons with function symbol, two-position and three-position knobs (selection knobs), two-position and three-position key pushbuttons, mushroom pushbuttons, emergency stop pushbuttons, Maintained pushbuttons, buzzers, and indicators etc. Moreover, the normal pushbuttons, illuminated pushbuttons and pushbuttons with function symbol equipped with the accessory F-I or F-II can prevent the misoperation of the pushbuttons.

Symbols

The various types of marks or signs (symbols, letters and characters etc.) can be provided according to the requirements of the users' operation instructions.

Standards

IEC 60947 /GB 14048.5

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Application

LA39-E series Pushbuttons have complete functions and can fully meet the control requirements of the domestic and foreign digital and program controlled devices as well as electronic and electric apparatus. They are widely used as auxiliary parts of control circuits, signal and interlock etc. in the various fields such as AC50Hz (60Hz) Voltage AC/DC 220V machine tools, textile, marine, aviation, automobile, tobacco, power, telecommunications and medical devices etc.

Model and Meanings

LA39-E □□□ / □□

Voltage Class Code

LED						
Voltage	AC/DC 6V	AC/DC 12V	AC/DC 24V	AC/DC 110V	DC 220V	AC 220V
Code	21	22	23	26	28	31

Color Code

red	green	yellow	blue	white	black
r	g	y	b	w	k

Actuator Shape

Round if no symbol	square	rectangular
	F	J

Actuator Shape

Normal pushbuttons if no symbol	Illuminated pushbuttons	Mushroom pushbuttons	Two-position knobs	Three-position knobs
	D	M	X	XS

Two-position key pushbuttons	Three-position key pushbuttons	Self-locking pushbuttons	Emergency stop pushbuttons	Pushbuttons with symbol
Y	YS	T	Z	S

Number of Contacts

One normally open and one normally closed	Two normally open and two normally closed
11	22

Installation outer diameter of the pushbutton is Ø16mm

The design serial number is issued by Shanghai Electrical Apparatus Research Institute

The pushbutton code is issued by Shanghai Electrical Apparatus Research Institute

Technical Parameters

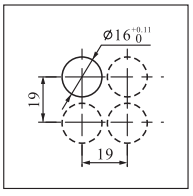
Work Temperature	-25℃～+55℃
Work Humidity	45～85%RH
Contact Resistance	≤50mΩ
Insulation Resistance	≥100MΩ
Rated Impulse Withstand Voltage (Uimp)	2000V AC
Mechanical endurance	10×10^5 times for normal pushbuttons 10×10^4 times for selector switches 5×10^4 times for emergency stop pushbuttons
Electrical endurance	AC-15 100,000 times (1,200 times/hour)
	DC-13 50,000 times (1,200 times/hour)
Protection Class of Actuator	IP40 Those with "TH" mark can work normally under the humid tropic environment.
Action Travel	1.5～2.0mm

Rated Work condition

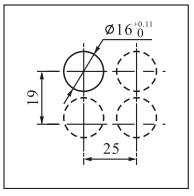
Rated Insulation Voltage Ui		250V		
Conventional Thermal Current Ith		5A		
Application Category	Rated Work Voltage Ue	24V	110V	220V
AC-15	Rated Work Current Ie	2A	1A	0.5A
DC-13		0.7A	0.2A	0.1A

Installation Hole Sizes

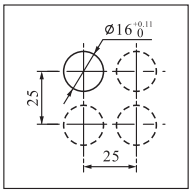
Round/Square Actuator Hole



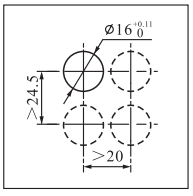
Rectangular Actuator Hole



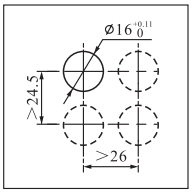
Mushroom Actuator Hole



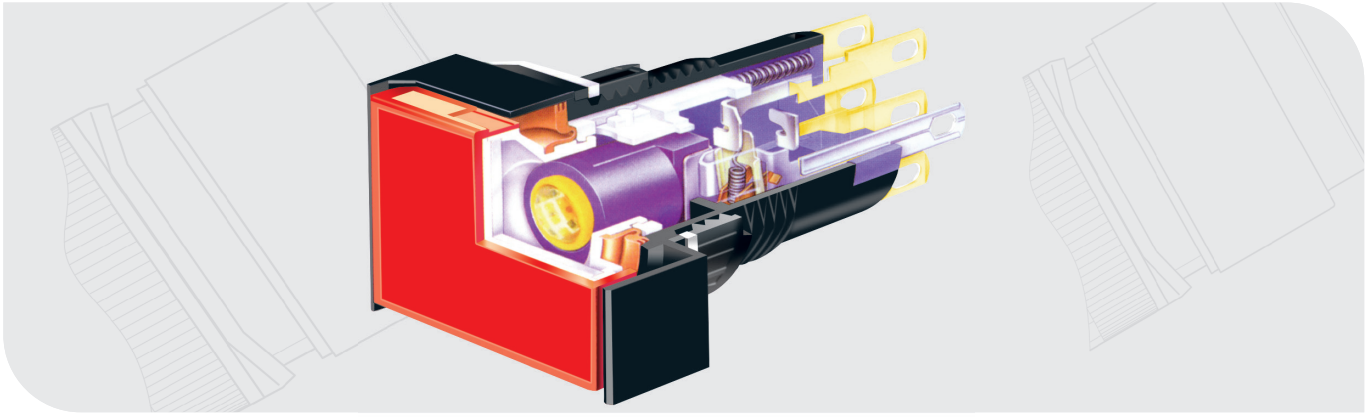
Hole for Actuator with Installation Guard Cover F-I



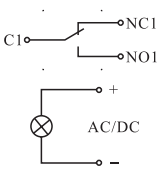
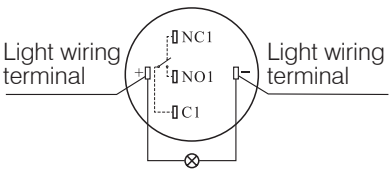
Hole for Actuator with Installation Guard Cover F-II

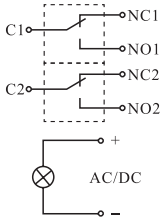
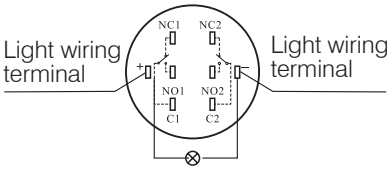


Sectional View of Control Components

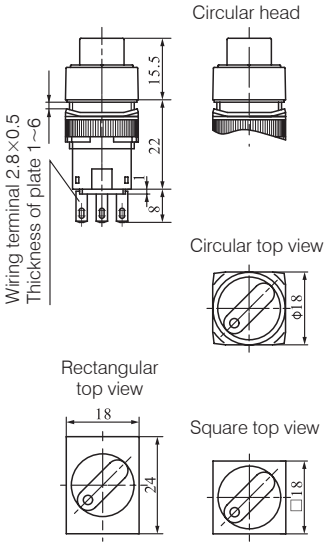
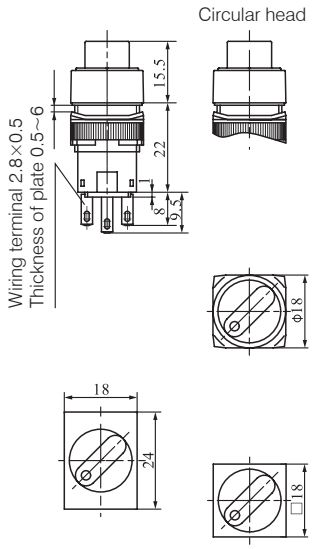


Sectional View of Control Components

One NOand one normally closed	Wiring diagram
	

Two NOand two normally closed	Wiring diagram
	

Model Selection

Name	Type	Work Status	Contacts	Model	Color	Lamp Voltage	Appearance dimension
Selector switch (Round)		L R 90° Two-position holding	11	LA39-E11X/□	red-r green-g yellow-y blue-b white-w black-k		
			22	LA39-E22X/□			
		L C R 45° 45° Three-position holding	22	LA39-E22XS/□			
Selector switch (Square)		L R 90° Two-position holding	11	LA39-E11XF/□			
			22	LA39-E22XF/□			
		L C R 45° 45° Three-position holding	22	LA39-E22XSF/□			
Selector switch (Rectangular)		L R 90° Two-position holding	11	LA39-E11XJ/□			
			22	LA39-E22XJ/□			
		L C R 45° 45° Three-position holding	22	LA39-E22XSJ/□			
Illuminated selector switch (Square)		L R 90° Two-position holding	11	LA39-E11XD/□▨	red-r green-g yellow-y blue-b white-w	21-AC.DC 6V 22-AC.DC 12V 23-AC.DC 24V 26-AC.DC 110V 28-AC.DC 220V 31-AC 220V	
			22	LA39-E22XD/□▨			
		L C R 45° 45° Three-position holding	22	LA39-E22XSD/□▨			
luminated selector switch (Square)		L R 90° Two-position holding	11	LA39-E11XDF/□▨			
			22	LA39-E22XDF/□▨			
		L C R 45° 45° Three-position holding	22	LA39-E22XSDF/□▨			
Illuminated selector switch (Rectangular)		L R 90° Two-position holding	11	LA39-E11XDJ/□▨			
			22	LA39-E22XDJ/□▨			
		L C R 45° 45° Three-position holding	22	LA39-E22XSDJ/□▨			

Description:

" □ " in the column is indicated with color, and " ▤ " is indicates with the voltage class code.

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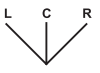
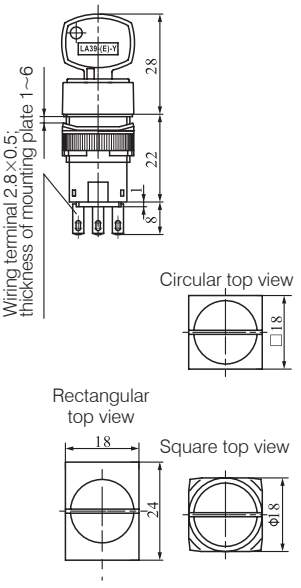
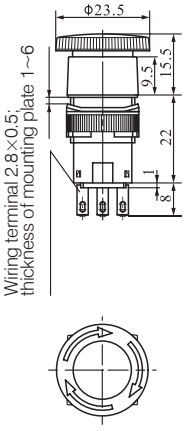
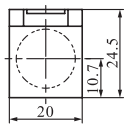
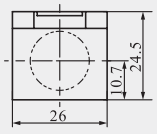
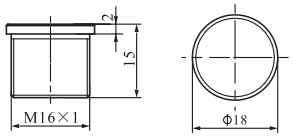
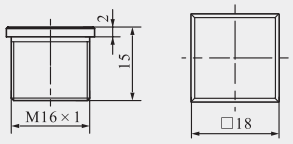
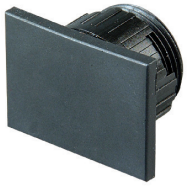
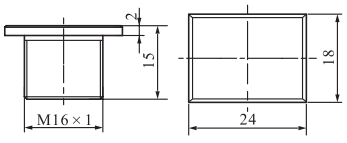
Name	Type	Work Status	contacts	Model	Color	Lamp Voltage	Remarks	Appearance dimension
Key switch (Round)		L R 90° Two-position maintained	11	LA39-E11Y/▥	red-r green-g yellow-y blue-b white-w black-k		For two-position key buttons, the two positions that the key is located are called: left (L) and right (R)z For three-position key buttons, the three positions that the key is located are called: left (L), center (C) and right (R) 	
			22	LA39-E22Y/▥				
		L C R 45° 45° Three-position holding	22	LA39-E22YS/▥				
Key switch (Square)		L R 90° Two-position maintained	11	LA39-E11YF/▥				
			22	LA39-E22YF/▥				
		L C R 45° 45° Three-position holding	22	LA39-E22YSF/▥				
Key Pushbutton (Rectangular)		L R 90° Two-position maintained	11	LA39-E11YJ/▥				
			22	LA39-E22YJ/▥				
		L C R 45° 45° Three-position maintained	22	LA39-E22YSJ/▥				
Emergency Pushbutton		Press to lock Rotate right to reset	11	LA39-E11Z/□	red-r			
			22	LA39-E22Z/□				
Mushroom Pushbutto		Momentary	11	LA39-E11M/□	red-r green-g yellow-y blue-b white-w black-k			
			22	LA39-E22M/□				
		Maintained	11	LA39-E11MT/□				
			22	LA39-E22MT/□				
Illuminated Mushroom Pushbutton		Momentary	11	LA39-E11MD/□ ▤	red-r green-g yellow-y blue-b white-w	21-AC.DC 6V 22-AC.DC 12V 23-AC.DC 24V 26-AC.DC 110V 28-AC.DC 220V 31-AC 220V		
			22	LA39-E22MD/□ ▤				
		Maintained	11	LA39-E11MTD/□ ▤				
			22	LA39-E22MTD/□ ▤				

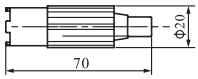
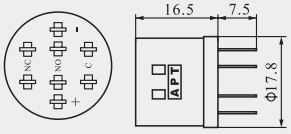
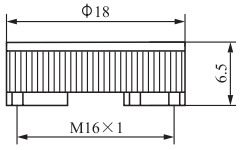
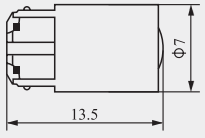
Description:

" ▥ " is indicated with the position that the key can be pulled out: left (L), center (C), right (R)

" □ " in the column of model is indicated with color, and " ▥ "is indicated with the voltage class code.

Name	Type	Model	Description	Function	Size
Guard Cover		F- I	It is used for round and square actuators	Prevent misoperaiton	
Guard Cover		F- II	It is used for rectangular actuators	Prevent misoperaiton	
Blanking plug		F-III	Plug the blank holes on the panel (round actuators)	For decoration	
Blanking plug		F-IV	Plug the blank holes on the panel (square actuators)	For decoration	
Blanking plug		F- V	Plug the blank holes on the panel (rectangular actuators)	For decoration	

LA39-E Series Pushbutton Accessories

Name	Type	Model	Description	Function	size
Fastening Wrench		F-Ⅵ	Assembling and disassembling tool	Assemble and disassemble the pushbuttons and light beads	
Wiring socket		F-Ⅶ	It is closely plugged in the rear of LA39-EØ16 series products	Avoid being directly welded to the wiring terminal of the pushbutton	
Fastening Nut		F-Ⅷ F-Ⅸ	Plastic material metal material	For fastening Ø16 pushbuttons and indicators	
LED Light Bead		F-D2/□▤	□ is indicated with color, ▤ is indicated with voltage code	The light source in the illuminated pushbuttons	

Description:

1. The switch wiring shall avoid being welded as much as possible. It is suggested that the internationally common used plug bush (2.8×0.5mm) shall be used and the jacket shall be installed.
2. If the welding is required for the wiring:
   A. Hand welding 25W, within 3 seconds.
   B. Auto welding 240℃, within 3 seconds.
   No external force shall be applied within 1 minute after being welded and then the jacket shall be installed. Do not use any solvent for welding in order to prevent it from entering the inside of the switch and damaging the products.
3. The Pushbuttons shall be hand operated. It is prohibited to use any other tool for operation!