



SHANGHAI YONGXING ELECTRONIC SWITCH CO., LTD.



SHANGHAI YONGXING ELECTRONIC

LA133 Series Model And Implication

Model

LA133 — 1 • 2 / 3 4 5

Button code is issued by
Shanghai Electric Research
Institution and used only by
Shanghai YongXing
Electronic Switch Co.,Ltd.

· Code of full-face colour








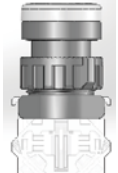

· Voltage code of indicator for illuminated switch. Some special voltage switch is available on request.

· Contact code

· Code for product feature

· Code for push button head & Bracket house

1 Code for push button head & Bracket house

Series Code	LA133-A1/a1	Series Code	LA133-B1	Series Code	LA133-E1/e1
Argentate		B1 Argentate & Black		E1 Argentate	
Black				e1 Black	
Series Code	LA133-A2/a2	Series Code	LA133-B2	Series Code	LA133-E2/e2
A2 Argentate		B2 Argentate & Black		E2 Argentate	
a2 Black				e2 Black	
Series Code	LA133-A3/a3	Series Code	LA133-B3	Series Code	LA133-E3/e3
A3 Argentate		B3 Argentate & Black		E3 Argentate	
a3 Black				e3 Black	

Features:

1. LA133-(A1、a1、B1、E1、e1): Outline clear-cut appearance, graceful lines. Install and Fix by inclined-screw, Succeed to design description for EAO Switzerland, accord to occident strict and soundness of the engineering design concept

2. LA133-(A2、a2、B2、E2、e2): Well-bedded appearance, Fixed by high-strength plastic PBT production and Straight screw combination, not only inherited the A1、a1、B1、E1、e1 stable characteristics of a solid, but also take into account the cost of manufacturing, it is A1、a1、B1、E1、e1 simple form, it

**2** Code for product feature

Code	Description	Code	Description
P	Momentary action pushbutton	T	Raised lens Pushbutton
PS	Maintained action actuator	TS	Maintained action actuator Raised Pushbutton
PD	Illuminated pushbutton actuator	TD	Illuminated Raised lens Pushbutton
PDS	Illuminated maintained action pushbutton actuator	TDS	Illuminated Maintained action actuator Raised lens Pushbutton
X2S	Short level 2-position maintained action, selector switch	XL2S	Long level 2-position maintained action selector switch
X3S	Short level 3-position selector switch	XL3S	Long level 3-position selector switch
X3	Short level 3-position return action selector switch	XL3	Long level 3-position return action selector switch
X3SR	Short level 3-position left return action, right maintained action selector switch	XL3SR	Long level 3-position left return action, right maintained action selector switch
X3SL	Short level 3-position left Maintained action, right return action selector switch	XL3SL	Long level 3-position left Maintained action, right return action selector switch
XD24S	2-position 45° illuminated maintained action selector switch	XD3S	3-position illuminated maintained action selector switch
XD24	2-position 45° illuminated return action selector switch	XD3SR	3-position illuminated left return action, right maintained action selector switch
XD2S	2-position 90° illuminated maintained action selector switch	XD3SL	3-position illuminated left maintained action, right return action selector switch
XD3	3-position illuminated return action keylock switch		

Code	Description	Code	Description
M	Mushroom-head pushbutton actuator	Y2S	2-position maintained action keylock switch
MS	Mushroom pushbutton with latching	Y3S	3-position keylock switch
MD	Illuminated mushroom-head pushbutton actuator	Y3	3-position return action keylock switch
MDS	Illuminated Maintained action mushroom-head pushbutton actuator	Y3SR	3-position left return action, right maintained action keylock switch
J	Emergency stop pushbutton	Y3SL	3-position, left Maintained action right action keylock switch

3 Contact code

Description

Code		Description	Code		Description
Snap-action switching element	Slow-make switching element		Snap-action switching element	Slow-make switching element	
K10	H10	1NO	K40	H40	4NO
K01	H01	1NC	K04	H04	4NC
K20	H20	2NO	K11	H11	1NO&1NC
K02	H02	2NC	K12	H12	1NO&2NC
K30	H30	3NO	K21	H21	2NO&1NC
K03	H03	3NC	K22	H22	2NO&2NC
K13	H13	1NO&3NC	K31	H31	3NO&1NC



K 型
Snap-action switching element



H 型
Slow-make switching element

4 Voltage code of indicator for illuminated switch

Illumination	LED(Light-emitting Diode)		
Power Supply	DC • AC	AC	FD
Voltage	6V 12V 24V 36V 48V 110V 220V 380V	110V 220V 380V	380V

Note: Special Voltage Can Be Made

5 Code of full-face colour

Code	R	G	Y	W	S	B	J
Description	Red	Green	Yellow	White	Blue	Black	Flat Metal Buttons

Parts material

Bezel of head	Bracket	Shell of button head	Contact point	Bracket house	Contact panel
AL	Zn or PBT	PA	AgSnO ₂ In ₂ O ₃	PC	Cu

Usage

LA133 series of pushbutton for AC50HZ or 60HZ, voltage rage AC from 600V to DC400V of CNC machine, and Mechanical, Electrical, Telecommunications, Shipbuilding, Metallurgy, Chemical switch of electrical control devices, which use as control illumination & interlocking switch etc.



◆ Environmental conditions

Operating temperature	-25°C ~ +55°C	Installation group	III Class
Degree of pollution	Level 3	Installation height	≤2000m
Vibration	10 ~ 2000Hz • 1mm • 15g	Relative humidity	≤98%
Protection degree	IP40 (Usually usage if not noted in order) IP65 (Should be noted in order) Can be reach IP67 if use Protective membranes for some pushbuttons		

◆ Electrical characteristics

Rated insulation Voltage: AC660V

Rated Thermal Current: 10A

Max. insulation voltage: 2500V/min

Usage Category: AC-15, DC-13

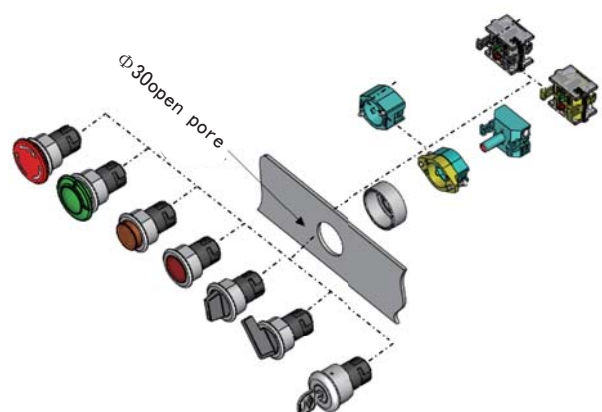
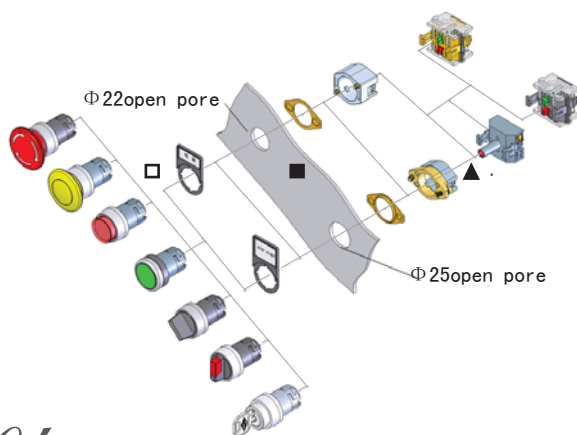
Usage Category	Connection Block UiV	working rate voltage UeV	working rate current IeA	Rated Thermal Current IthA
AC-15	660	220 660	6 2	10
DC-13	660	110 220	1 0.6	10


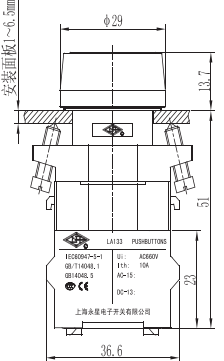

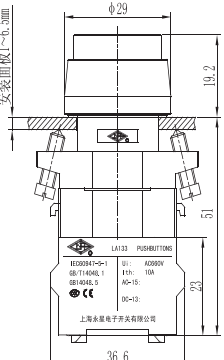

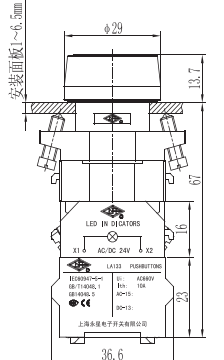

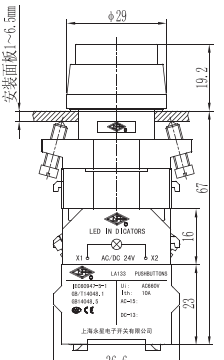
◆ Mechanical lifetime

structural style	mechanical life (cycles)	operation frequency (cycle/h)
Pushbutton, Mushroom-head pushbutton & illuminated pushbutton actuator	1 million	1200
Rotary Switch, Keylock switches & Maintained action actuator	0.3 million	120

◆ Electrical lifetime

Usage Category	Electrical lifetiom(cycles)	Operation frequency (cycle/h)
AC-15	0.6 million	1200
DC-13	0.25million	1200


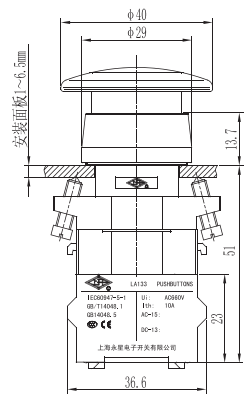

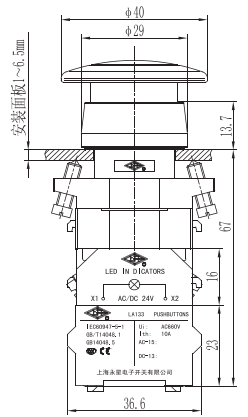

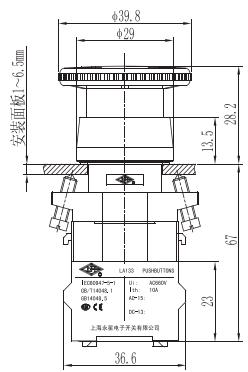
Assembly diagram

Name	Pattern	Working	Model	Color	Voltage	Dimension
pushbutton		Momentary Maintained	LA133-A1.P/□▲ LA133-A1.PS/□▲	<div>● R</div> <div>● G</div> <div>● Y</div> <div>○ W</div> <div>● S</div> <div>● B</div>		
Raised lens pushbutton		Momentary Maintained	LA133-A1.T/□▲ LA133-A1.TS/□▲	<div>● R</div> <div>● G</div> <div>● Y</div> <div>○ W</div> <div>● S</div> <div>● B</div>		
Illuminated pushbutton		Momentary Maintained	LA133-A1.PD/□■▲ LA133-A1.PDS/□■▲	<div>● R</div> <div>● G</div> <div>● Y</div> <div>○ W</div> <div>● S</div>	DC 6V、12V、 24V、36V、 48V、110V、 220V AC 110V、220V、 380V FD 380V	
Illuminated raised lens pushbutton		Momentary Maintained	LA133-A1.TD/□■▲ LA133-A1.TDS/□■▲	<div>● R</div> <div>● G</div> <div>● Y</div> <div>○ W</div> <div>● S</div>	DC 6V、12V、 24V、36V、 48V、110V、 220V AC 110V、220V、 380V FD 380V	

◆ Description


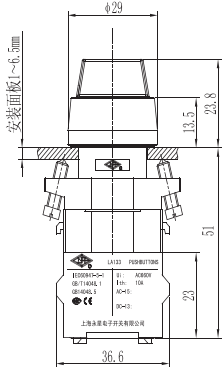

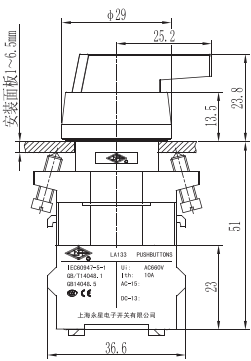

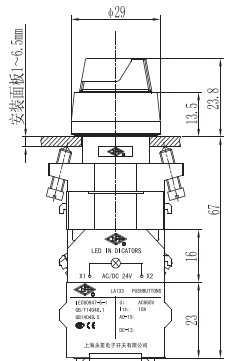

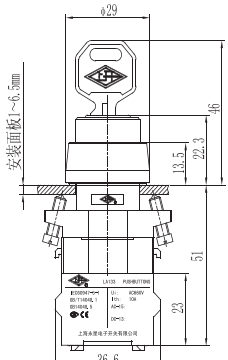
1. Contact Code is filled in □, voltage in ■, color code in ▲.
2. Use bright & solid color of LED for Illuminated Pushbutton.
3. A1 can be changed into A2 when L2 bracket is necessary on request.
4. A can be changed into a when black pushbutton is necessary on request.



Name	Pattern	Working	Model	Color	Voltage	Dimension
Mushroom pushbutton		Momentary Maintained	LA133-A1.M/□▲ LA133-A1.MS/□▲	● R ● G ● Y ○ W ● S ● B		
Illuminated mushroom pushbutton		Momentary Maintained	LA133-A1.MD/□■▲ LA133-A1.MDS/□■▲	● R ● G ● Y ○ W ● S	DC • AC 6V、12V、 24V、36V、 48V、110V、 220V AC 110V、220V、 380V FD 380V	
Emergency stop pushbutton		Maintained when pressing button, return after clockwise rotation	LA133-A1.J/□▲	● R ● Y		

◆ Description

1. Contact Code is filled in □, voltage in ■, color code in ▲.
2. Use bright & solid color of LED for Illuminated Pushbutton.
3. A1 can be changed into A2 when L2 bracket is necessary on request.
4. A can be changed into a when black pushbutton is necessary on request.

Name	Pattern	Model		Color	Voltage	Dimension
Short lever rotary selector		Two-position	0 90° LA133-A1.X2S/□▲	● R ● G ● Y ● S		
		Three-position	45° 0 45° LA133-A1.X3S/□▲ 45° 0 45° LA133-A1.X3/□▲ 45° 0 45° LA133-A1.X3SR/□▲ 45° 0 45° LA133-A1.X3SL/□▲			
Long lever rotary selector		Two-position	0 90° LA133-A1.XL2S/□▲	● R ● G ● Y ● S		
		Three-position	45° 0 45° LA133-A1.XL3S/□▲ 45° 0 45° LA133-A1.XL3/□▲ 45° 0 45° LA133-A1.XL3SR/□▲ 45° 0 45° LA133-A1.XL3SL/□▲			
Illuminated rotary		Two-position	0 90° LA133-A1.XD2S/□■▲ 0 45° LA133-A1.XD24S/□■▲ 0 45° LA133-A1.XD24/□■▲	● R ● G ● Y ○ W ● S	DC • AC 6V、12V、 24V、36V、 48V、110V、 220V AC 110V、220V、 380V FD 380V	
		Three-position	45° 0 45° LA133-A1.XD3S/□■▲ 45° 0 45° LA133-A1.XD3/□■▲ 45° 0 45° LA133-A1.XD3SR/□■▲ 45° 0 45° LA133-A1.XD3SL/□■▲			
Keylock switch		Two-position	0 90° LA133-A1.Y2S/□		Key in 0 can be removed, if want take out in other locations, should be indicated on the orders	
		Three-position	45° 0 45° LA133-A1.Y3S/□ 45° 0 45° LA133-A1.Y3/□ 45° 0 45° LA133-A1.Y3SR/□ 45° 0 45° LA133-A1.Y3SL/□			

◆ Description


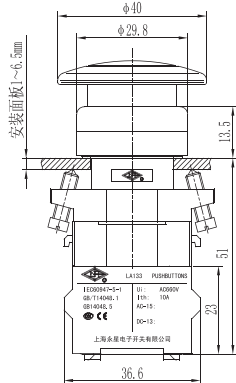

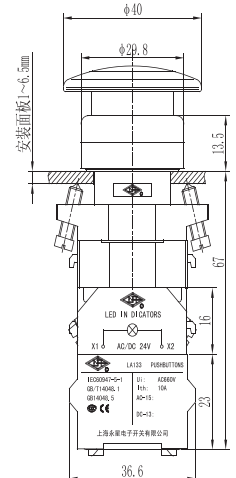

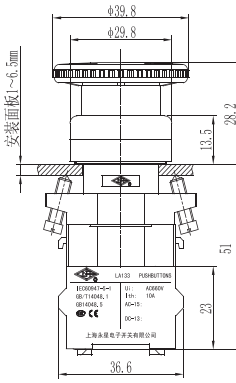
1. Contact Code is filled in □, voltage in , color code in
2. Use bright & solid color of LED for Illuminated Pushbutton. .
3. A1 can be changed into A2 when L2 bracket is necessary on request.
4. A can be changed into a when black pushbutton is necessary on request.



Name	Pattern	Working	Model	Color	Voltage	Dimension
Pushbutton		Momentary Maintained	LA133-B1.P/□▲ LA133-B1.PS/□▲	● R ● G ● Y ○ W ● S ● B		
Raised lens pushbutton		Momentary Maintained	LA133-B1.T/□▲ LA133-B1.TS/□▲	● R ● G ● Y ○ W ● S ● B		
Illuminated pushbutton		Momentary Maintained	LA133-B1.PD/□■▲ LA133-B1.PDS/□■▲	● R ● G ● Y ○ W ● S	DC • AC 6V、12V、 24V、36V、 48V、110V、 220V AC 110V、220V、 380V FD 380V	
Illuminated raised lens pushbutton		Momentary Maintained	LA133-B1.TD/□■▲ LA133-B1.TDS/□■▲	● R ● G ● Y ○ W ● S	DC • AC 6V、12V、 24V、36V、 48V、110V、 220V AC 110V、220V、 380V FD 380V	

◆ Description


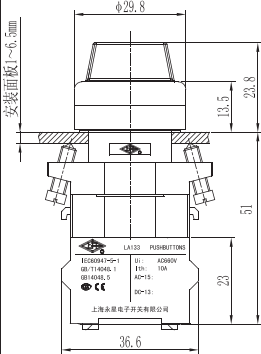

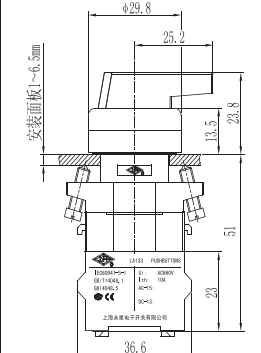

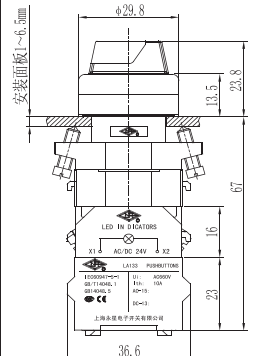

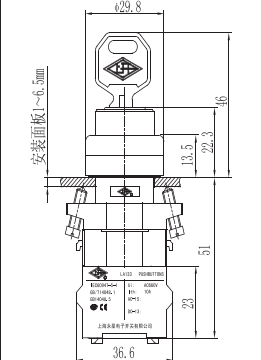
1. Contact Code is filled in □, voltage in ■, color code in ▲.
2. Use bright & solid color of LED for Illuminated Pushbutton.
3. B1 can be changed into B2 when L2 bracket is necessary on request.

Name	Pattern	Working	Model	Color	Voltage	Dimension
Mushroom pushbutton		Momentary Maintained	LA133-B1.M/□▲ LA133-B1.MS/□▲	● R ● G ● Y ○ W ● S ● B		
Illuminated mushroom pushbutton		Momentary Maintained	LA133-B1.MD/□■▲ LA133-B1.MDS/□■▲	● R ● G ● Y ○ W ● S	DC • AC 6V、12V、 24V、36V、 48V、110V、 220V AC 110V、220V、 380V FD 380V	
Emergency stop pushbutton		Maintained when pressing button, return after clockwise rotation	LA133-B1.J/□▲	● R ● Y		

◆ Description


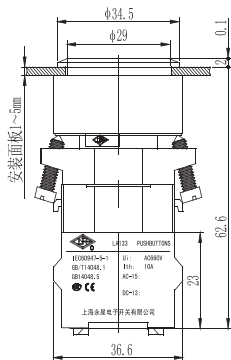

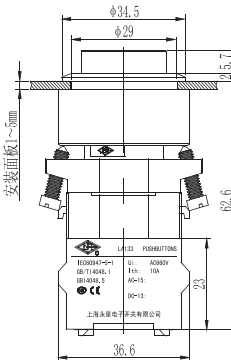

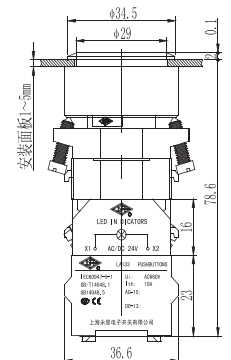

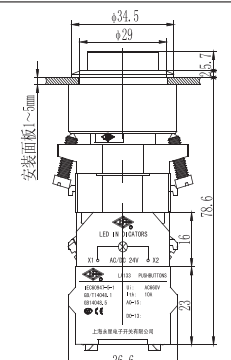
1. Contact Code is filled in □, voltage in ■, color code in ▲.
2. Use bright & solid color of LED for Illuminated Pushbutton.
3. B1 can be changed into B2 when L2 bracket is necessary on request.



Name	Pattern	Model		Color	Voltage	Dimension
Short lever rotary selector		Two-position	0 90° LA133-B1.X2S/□▲	● R ● G ● Y ● S		
		Three-position	45° 0 45° LA133-B1.X3S/□▲			
			45° 0 45° LA133-B1.X3/□▲			
			45° 0 45° LA133-B1.X3SR/□▲			
Long lever rotary selector		Two-position	0 90° LA133-B1.XL2S/□▲	● R ● G ● Y ● S		
		Three-position	45° 0 45° LA133-B1.XL3S/□▲			
			45° 0 45° LA133-B1.XL3/□▲			
			45° 0 45° LA133-B1.XL3SR/□▲			
Illuminated rotary		Two-position	0 90° LA133-B1.XD2S/□■▲	● R ● G ● Y ○ W ● S	DC • AC 6V、12V、 24V、36V、 48V、110V、 220V AC 110V、220V、 380V FD 380V	
		Three-position	0 45° LA133-B1.XD24S/□■▲			
			0 45° LA133-B1.XD24/□■▲			
			45° 0 45° LA133-B1.XD3S/□■▲			
Keylock switch		Two-position	0 90° LA133-B1.Y2S/□		Key can be removed when it is on "0" other option should be noted when it is necessary on request	
		Three-position	45° 0 45° LA133-B1.Y3S/□			
			45° 0 45° LA133-B1.Y3/□			
			45° 0 45° LA133-B1.Y3SR/□			
			45° 0 45° LA133-B1.Y3SL/□			

◆ Description

- 1.Contact Code is filled in □, voltage in ■, color code in ▲
2. Use bright & solid color of LED for Illuminated Pushbutton.
3. B1 can be changed into B2 when L2 bracket is necessary on request.

Name	Pattern	Working	Model	Color	Voltage	Dimension
pushbutton		Momentary Maintained	LA133-E1.P/□▲ LA133-E1.PS/□▲	● R ● G ● Y ○ W ● S ● B		
Raised lens pushbutton		Momentary Maintained	LA133-E1.T/□▲ LA133-E1.TS/□▲	● R ● G ● Y ○ W ● S ● B		
Illuminated pushbutton		Momentary Maintained	LA133-E1.PD/□■▲ LA133-E1.PDS/□■▲	● R ● G ● Y ○ W ● S	DC • AC 6V、12V、 24V、36V、 48V、110V、 220V AC 110V、220V、 380V FD 380V	
Illuminated raised lens pushbutton		Momentary Maintained	LA133-E1.TD/□■▲ LA133-E1.TDS/□■▲	● R ● G ● Y ○ W ● S	DC • AC 6V、12V、 24V、36V、 48V、110V、 220V AC 110V、220V、 380V FD 380V	

◆ Description


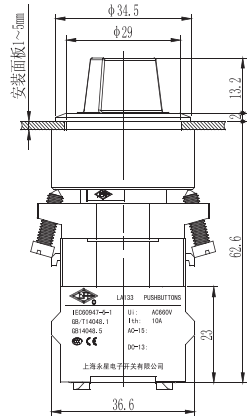

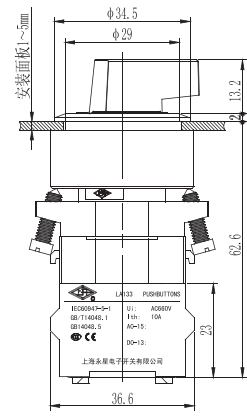

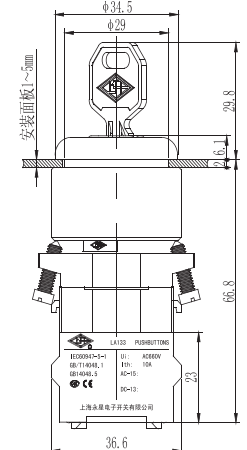
1. Contact Code is filled in □, voltage in ■, color code in ▲.
2. Use bright & solid color of LED for Illuminated Pushbutton.
3. E1 can be changed into E2 when L2 bracket is necessary on request.
4. A can be changed into a when black pushbutton is necessary on request.



Name	Pattern	Working	Model	Color	Voltage	Dimension
Mushroom pushbutton		Momentary Maintained	LA133-E1.M/□▲ LA133-E1.MS/□▲	● R ● G ● Y ○ W ● S ● B		
Illuminated mushroom pushbutton		Momentary Maintained	LA133-E1.MD/□■▲ LA133-E1.MDS/□■▲	● R ● G ● Y ○ W ● S ● B	DC • AC 6V、12V、 24V、36V、 48V、110V、 220V AC 110V、220V、 380V FD 380V	
Emergency stop pushbutton		Maintained when pressing button, return after clockwise rotation	LA133-E1.J/□▲	● R ● Y		
Indicator		Illuminated	LA133-E1.D/■▲	● R ● G ● Y ○ W ● S	DC • AC 6V、12V、 24V、36V、 48V、110V、 220V AC 110V、220V、 380V FD 380V	

◆ Description

- 1.Contact Code is filled in □,voltage in ■,color code in ▲.
- 2.Use bright & solid color of LED for Illuminated Pushbutton.
- 3.E1 can be changed into E2 when L2 bracket is necessary on request.
- 4.A can be changed into a when black pushbutton is necessary on request.

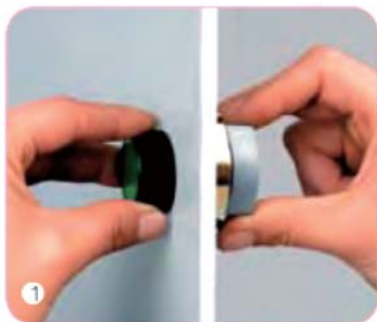
Name	Pattern	Model		Color	Voltage	Dimension
Short lever rotary selector		Two-position	0 90° LA133-E1.X2S/□▲	<div> <div>● R</div> <div>● G</div> <div>● Y</div> <div>● S</div> </div>		
		Three-position	45° 0 45° LA133-E1.X3S/□▲ 45° 0 45° LA133-E1.X3/□▲ 45° 0 45° LA133-E1.X3SR/□▲ 45° 0 45° LA133-E1.X3SL/□▲			
Long lever rotary selector		Two-position	0 90° LA133-E1.XL2S/□▲	<div> <div>● R</div> <div>● G</div> <div>● Y</div> <div>● S</div> </div>		
		Three-position	45° 0 45° LA133-E1.XL3S/□▲ 45° 0 45° LA133-E1.XL3/□▲ 45° 0 45° LA133-E1.XL3SR/□▲ 45° 0 45° LA133-E1.XL3SL/□▲			
Keylock switch		Two-position	0 90° LA133-E1.Y2S/□		Key in 0 can be removed, if want take out in other locations, should be indicated on the orders	
		Three-position	45° 0 45° LA133-B1.Y3S/□ 45° 0 45° LA133-B1.Y3/□ 45° 0 45° LA133-B1.Y3SR/□ 45° 0 45° LA133-B1.Y3SL/□			

◆ Description

1. Contact Code is filled in □, voltage in ■, color code in ▲.
2. Use bright & solid color of LED for Illuminated Pushbutton.
3. E1 can be changed into E2 when L2 bracket is necessary on request.
4. A can be changed into a when black pushbutton is necessary on request.

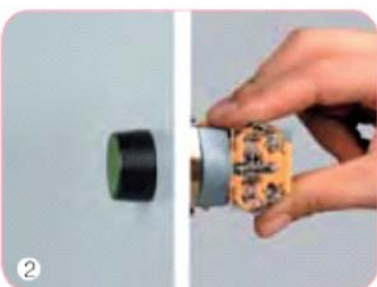
Mounting instruction

◆ LA133-A Series



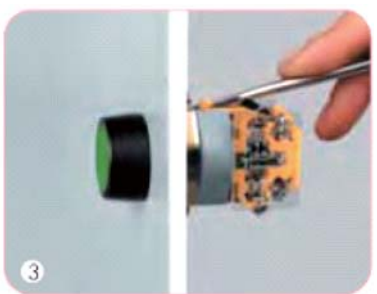
1. Insert the operator in the mounting hole from the front of panel, then bracket from the back of panel. Fasten the screws (not too strong, max. torque is 25N-cm). When the panel is plastic and other non-metal material, F1 can be put at the back of the panel. When the mounting hole is 25mm, F2 can be mounted together with bracket. For FL1 type, the contact block can be mounted together with bracket. For FL2 type, the contact block should be disassembled, then assemble the bracket.

Note: If it doesn't work smoothly after mounting, please adjust both tightening screws to keep balance.



2. Contact block can be directly fastened, the symbol parts can be mounted in the front of panel. Please fasten lamp holder before the contact block as mounting illuminated buttons.

Note: Please check the buckles of contact block after mounting.



3. Disassembly the contact block and lamp holder, please screwdriver to lift the buckles of the mounting system. The mounted parts can be easily disassembled.

◆ Contact labelling

A&B series normal pushbutton, illuminated pushbutton, key selector and selector

A&B series mushroom pushbutton & long lever rotary selector

E series normal pushbutton, illuminated pushbutton, key selector and selector

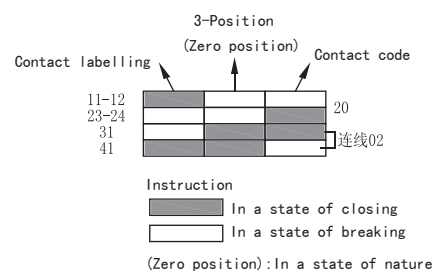
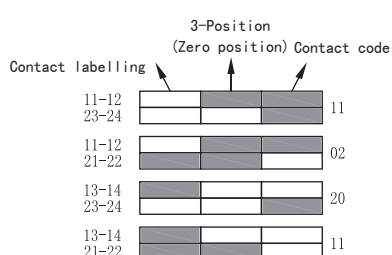
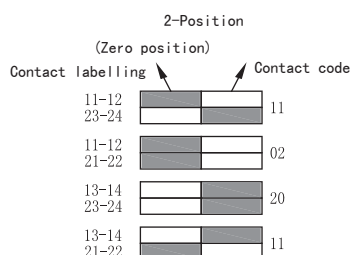
E series mushroom pushbutton & long lever rotary selector

◆ Mounting hole size

E, mushroom & long-handle rotary pushbutton.

A, B, illuminated, key & rotary pushbutton.	A, B, mushroom & long-handle rotary pushbutton	E, illuminated, key & rotary pushbutton.	E, mushroom & long-handle rotary pushbutton.

◆ Function diagram of selectors and key selectors



Name	Pattern	Model	Material	Instruction
Bracket		LA133-FL1	Zn+PBT	For fixing pushbutton
		LA133-FL2	PBT	For fixing pushbutton
Contact block	Snap-action 	LA133-FC-K10 LA133-FC-K01 LA133-FC-K11 LA133-FC-K02 LA133-FC-K20	PC	Screw terminal, snap-action with silver self-cleaning contacts. 2-digit figure in the model express NO & NC quantity of contacts.
	Slow-make 	LA133-FC-H10 LA133-FC-H01 LA133-FC-H11 LA133-FC-H02 LA133-FC-H20	PC	Screw terminal, snap-action with self-cleaning contacts. 2-digit figure in the model express NO&NC quantity of contacts.
Lamp element		LA133-FL/■▲	PA	Installed between bracket and contact block for illuminated pushbutton. State colour in ■ and voltage category code in ▲.
Small Nameplate		LA133-FT1	Plastic	Hang on pushbutton or indicator symbol or explanation.
Big Nameplate		LA133-FT2	Plastic	Hang on pushbutton or indicator for symbol or explanation.



Name	Pattern	Model	Material	Application
φ22 Mounting ring		LA133-F1	Fe	Installed on plastic panel to strengthen mounting.
φ22 Panel plug		LA133-F3	ABS	Fill up the redundant panel cut-outs making it seem more beautiful.
Protective membrane		LA133-F4	silicon gel	Always on the head of operators. Waterproof and dustproof, IP67
Emergency stop Warning plate		LA133-F5	ABS	Installed behind the emergency-off button as an eye-catcher.
Protective cover		LA133-F6	PC	Protective cover for round pushbutton. Preventing collision & wrong operation. Can be locked.
Rotary protective cover		LA133-F7	PC	Preventing collision & wrong operation. Can be locked.
Pushbutton box [Enclosure]		1hole : YBOX-1 2holes : YBOX-2 3holes : YBOX-3 4holes : YBOX-4	ABS	Cased the switch or illumination according to customers' requirements.