

## LAS1 Series A Type Pushbutton Switches

### Characteristic

#### Specs

Having three head shape: round ( $\Phi 18\text{mm}$ ), square ( $18 \times 18\text{mm}$ ) and rectangular ( $18 \times 24\text{mm}$ ), containing pilot lamps, pushbuttons, illuminated push buttons, selector switches, key-lock switches, buzzer and emergency switches. The normal diameter of the installation hole is  $\Phi 16\text{mm}$ , and some type can be installed in  $\Phi 22\text{mm}$  hole easily with the diameter changing circle.

#### Functions

The product has stable property, small contact resistance, strong insulation resistance, anti-vibration and so on. It meets to standards of IEC60947-5-1, GB14048.5 etc.

#### Structure

The switch have the advantage of fast-break and self-cleaning, and each of them contains 1 NO and 1 NC terminal. Every pushbutton also can possess from one to two switch units.

#### Protective Degree

Its protective degree is IP40, IP65, some of type can reach IP67 with the seal cover.

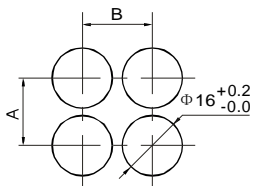
### Lamp Ratings

Lamp Type	AC LED Lamp (Standard)			Neon Lamp		
	AC/DC6V	AC/DC12V	AC/DC24V	AC110V	AC220V	
Rated Voltage	AC/DC110V		AC/DC220V			
Cover Color:	R	G	Y	O	B	W
Life	About 40,000 hours			About 20,000 hours		

Note: the lamp contains a current-limiting resistor inside and doesn't need external connection.

DC LED lamp, dual-color LED lamp and other voltages can be customized.

### Installation Dimensions



Category	A	B
Round	$\geq 18\text{mm}$	$\geq 18\text{mm}$
Square	$\geq 18\text{mm}$	$\geq 18\text{mm}$
Rectangular	$\geq 18\text{mm}$	$\geq 24\text{mm}$
Mushroom	$\geq 24\text{mm}$	$\geq 24\text{mm}$
Big square	$\geq 24\text{mm}$	$\geq 24\text{mm}$
Big rectangular	$\geq 18\text{mm}$	$\geq 24\text{mm}$

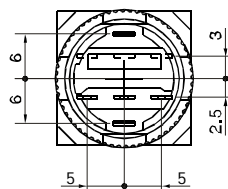
### Switch Ratings

Thermal Current I <sub>th</sub>	5A		
Rated Voltage	24V	125V (110V)	250V (220V)
Direct Current	1A	0.2A	0.1A
Alternating Current	P.F=1	5A	3A
	P.F=0.7	3A	2A

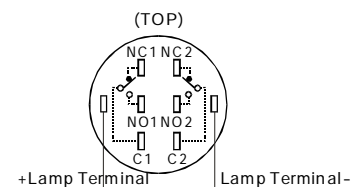
### Specifications

Operating Temperature	-25°C ~ +55°C (no freezing)	
Operating Humidity	45 ~ 85%RH (no condensation)	
Contact Material	- silver - silver alloy - gold-clad silver, cladding thickness is 3 μm	
Contact Resistance	$\leq 50\text{M}\Omega$	
Insulation Resistance	$\geq 100\text{M}\Omega$	
Dielectric strength	Between contact and lamp terminals: 2000V, AC 50Hz, 1 min	
	Between terminal of the same pole: 1000V, AC 50Hz, 1 min	
	Between terminal of different pole: 2000V, AC 50Hz, 1 min	
Vibration Resistance	50Hz, Amplitude 1.2mm p-p	
Shock Resistance	$\geq 10\text{g}$	
Life	Mechanical	Momentary Type: 1,000,000 times Alternate and Selector Type: 500,000 times Key-lock and Emergency Type: 200,000 times
	Electrical	$\geq 50,000$ times
	Terminal	Diameter of welded wire: $2 \times 0.8\text{mm}$ Area of copper wire: $0.75\text{mm}^2$ max Connecting link: $2.8 \times 0.5\text{mm}$
	Solder Heat Resistance	230°C (no more than 3 second)
Operating Travel	(Pushbuttons) about 3mm	

### Bottom View



### Terminal Arrangement





### Implication of Type

LAS1-A	★	-	□	■	/	◇	◆	/	△	/	▲	/	◎
Code of series	The front shape: Y round F square J rectangular M mushroom DF big square DJ big rectangular	Contact Structure: 11 1NO1NC 22 2NO2NC	Code name of derivative products: D pilot lamp Z alternate type X selector type Y key-lock type TS emergency B buzzer type No letter means momentary	◇: expresses selector and key-lock series: 2 two position 3 three position ◆: expresses key-lock retention position	color: R red G green Y yellow O orange B blue W white N black	Lamp Voltage (Please check the lamp rating)	Protective Degree: P IP65 FP IP67 No letter means IP40						

## LAS1-A Emergency Pushbutton

### Product Cutline

Shape	Contact	Type Number	Remrks
Round 	SPDT	LAS1-AY-11TS/Δ/⊙	 ◎ Protective Degree: IP40, IP65
	DPDT	LAS1-AY-22TS/Δ/⊙	

### Shape and Dimensions

