

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 1NO and 1NC 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.

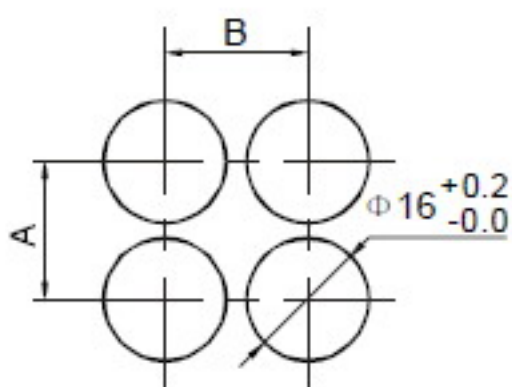
Lamp Ratings

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	$\geq 18\text{mm}$	$\geq 24\text{mm}$

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						

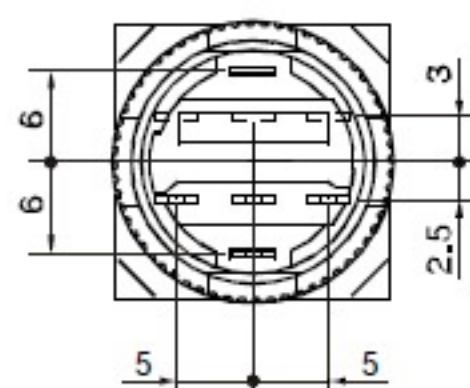
Switch Ratings

Thermal Current I _{th}		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

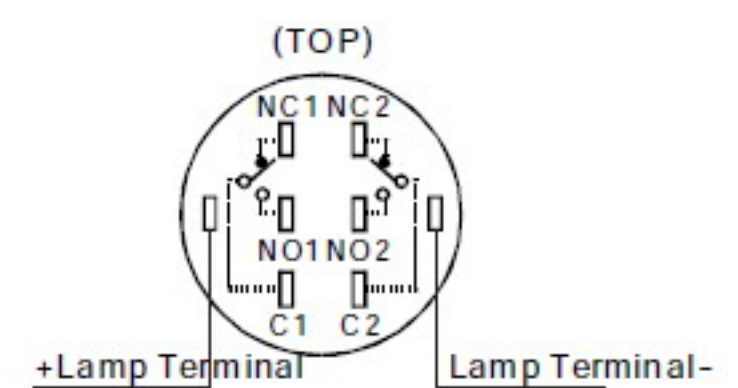
Specifications

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 × 0.8mm Area of copper wire: 0.75mm ² max Connecting link: 2.8 × 0.5mm	
Solder Heat Resistance		230°C (no more than 3 second)	
Operating Travel		(Pushbuttons) about 3mm	

Bottom View






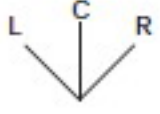
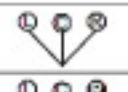
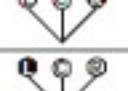
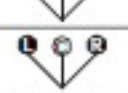
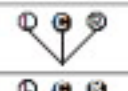
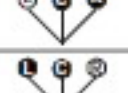
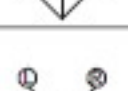






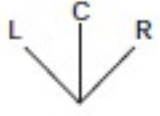
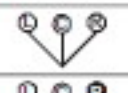
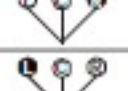
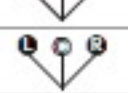
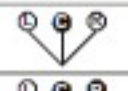
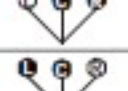
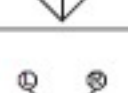




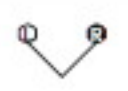

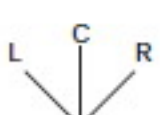
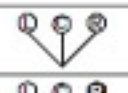
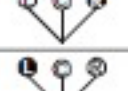

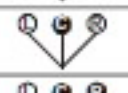
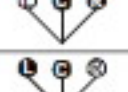




Terminal Arrangement



LAS1-A Key-lock Switches

Product Outline

Shape	Position	Key Retained at Position ●	Contact	Type	Remarks
	 90° 2 Position		SPDT	LAS1-AY-11Y/2A/○	○ Two keys are supplied. ○ All the keys are same. ○ Protective Degree: IP40,IP65
			DPDT	LAS1-AY-22Y/2A/○	
			SPDT	LAS1-AY-11Y/2B/○	
			DPDT	LAS1-AY-22Y/2B/○	
			SPDT	LAS1-AY-11Y/2C/○	
			DPDT	LAS1-AY-22Y/2C/○	
	 45° 3 Position		DPDT	LAS1-AY-22Y/3A/○	
			DPDT	LAS1-AY-22Y/3B/○	
			DPDT	LAS1-AY-22Y/3C/○	
			DPDT	LAS1-AY-22Y/3D/○	
			DPDT	LAS1-AY-22Y/3E/○	
			DPDT	LAS1-AY-22Y/3G/○	
			DPDT	LAS1-AY-22Y/3H/○	
			DPDT	LAS1-AY-22Y/3H/○	
	 90° 2 Position		SPDT	LAS1-AF-11Y/2A/○	
			DPDT	LAS1-AF-22Y/2A/○	
			SPDT	LAS1-AF-11Y/2B/○	
			DPDT	LAS1-AF-22Y/2B/○	
			SPDT	LAS1-AF-11Y/2C/○	
			DPDT	LAS1-AF-22Y/2C/○	
	 45° 3 Position		DPDT	LAS1-AF-22Y/3A/○	
			DPDT	LAS1-AF-22Y/3B/○	
			DPDT	LAS1-AF-22Y/3C/○	
			DPDT	LAS1-AF-22Y/3D/○	
			DPDT	LAS1-AF-22Y/3E/○	
			DPDT	LAS1-AF-22Y/3G/○	
			DPDT	LAS1-AF-22Y/3H/○	
			DPDT	LAS1-AF-22Y/3H/○	
	 90° 2 Position		SPDT	LAS1-AJ-11Y/2A/○	
			DPDT	LAS1-AJ-22Y/2A/○	
			SPDT	LAS1-AJ-11Y/2B/○	
			DPDT	LAS1-AJ-22Y/2B/○	
			SPDT	LAS1-AJ-11Y/2C/○	
			DPDT	LAS1-AJ-22Y/2C/○	
	 45° 3 Position		DPDT	LAS1-AJ-22Y/3A/○	
			DPDT	LAS1-AJ-22Y/3B/○	
			DPDT	LAS1-AJ-22Y/3C/○	
			DPDT	LAS1-AJ-22Y/3D/○	
			DPDT	LAS1-AJ-22Y/3E/○	
			DPDT	LAS1-AJ-22Y/3G/○	
			DPDT	LAS1-AJ-22Y/3H/○	
			DPDT	LAS1-AJ-22Y/3H/○	

Shape and Dimensions

