

LAS1 Series B Type(AH16) Pushbutton Switches

Product Overview

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 pushbuttons, selector switches key-lock switches 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.

Performance

The product has stable property, small contact resistance, strong insulation resistance, anti-vibration and soon. 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 four switch units.

Protective Degree

The standard degree is IP40, some of type can reach IP67 with the seal cover. And the pin insert type can be make in IP65.

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	R	G
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.

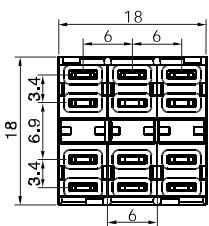
Switch Ratings

Thermal Current Ith		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

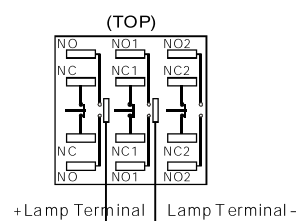
Specifications

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: 0.75mm^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

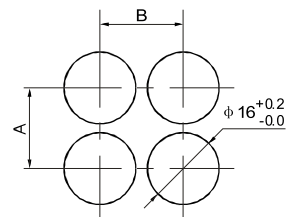


Terminal Arrangement



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	$\geq 32\text{mm}$	$\geq 32\text{mm}$




Implication of Type

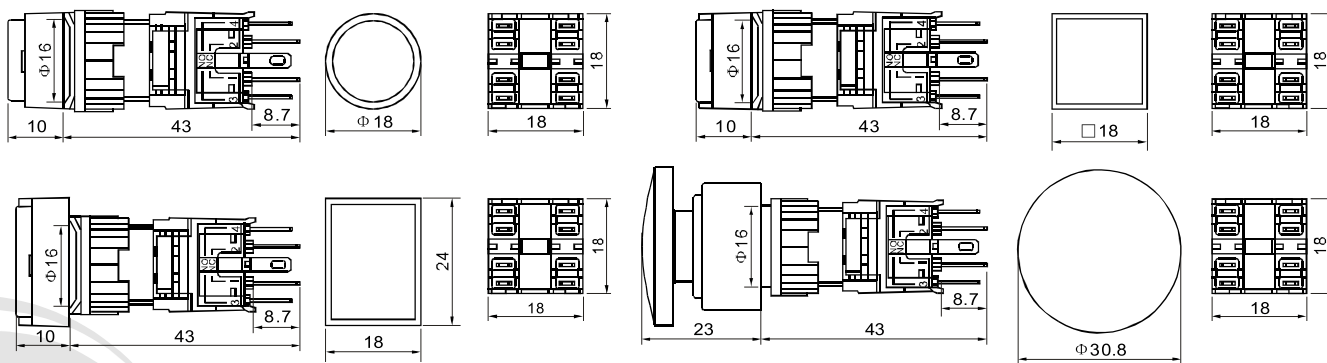
LAS1-B	★	—	□	■	/	◇	◆	/	△	/	▲	/	◎
Code of series	The front shape: Y round F square J rectangular	Contact Structure: 11 1NO1NC 22 2NO2NC 33 3NO3NC	Code name of derivative products: D pilot lamp Z alternate type X selector type Y key-lock type M mushroom type TS emergency type No letter means momentary	◇ The position of selector and key-lock switch: 2 two position 3 three position ◆ the operating type of selector and key-lock switch: 1 Maintain 2 Half return 3 Self return	Color: R red G green Y yellow O orange B blue W white N black	Voltage of the illuminated part is included in the lamp ratings form.	Protective Degree: FP IP67 No letter means IP40						

LAS1-B Pilot Lamp, Pushbuttons & Illuminated Pushbuttons

Product Outline



Shape	Contact	Operation Type	Type Number	Remarks
Round (can be illuminated) 	--	Pilot Lamp	LAS1 - BY - D/Δ/▲/◎	R G Y O B W ◎ Protective Degree: IP40, IP67 ; IP67 should be installed with the seal cover.
	1NO1NC	Momentary	LAS1 - BY - 11/Δ/▲/◎	
		Alternate	LAS1 - BY - 11Z/Δ/▲/◎	
	2NO2NC	Momentary	LAS1 - BY - 22/Δ/▲/◎	
		Alternate	LAS1 - BY - 22Z/Δ/▲/◎	
	3NO3NC	Momentary	LAS1 - BY - 33/Δ/▲/◎	
Alternate		LAS1 - BY - 33Z/Δ/▲/◎		
Square (can be illuminated) 	--	Pilot Lamp	LAS1 - BF - D/Δ/▲/◎	
	1NO1NC	Momentary	LAS1 - BF - 11/Δ/▲/◎	
		Alternate	LAS1 - BF - 11Z/Δ/▲/◎	
	2NO2NC	Momentary	LAS1 - BF - 22/Δ/▲/◎	
		Alternate	LAS1 - BF - 22Z/Δ/▲/◎	
	3NO3NC	Momentary	LAS1 - BF - 33/Δ/▲/◎	
Alternate		LAS1 - BF - 33Z/Δ/▲/◎		
Rectangular (can be illuminated) 	--	Pilot Lamp	LAS1 - BJ - D/Δ/▲/◎	
	1NO1NC	Momentary	LAS1 - BJ - 11/Δ/▲/◎	
		Alternate	LAS1 - BJ - 11Z/Δ/▲/◎	
	2NO2NC	Momentary	LAS1 - BJ - 22/Δ/▲/◎	
		Alternate	LAS1 - BJ - 22Z/Δ/▲/◎	
	3NO3NC	Momentary	LAS1 - BJ - 33/Δ/▲/◎	
Alternate		LAS1 - BJ - 33Z/Δ/▲/◎		
Mushroom 	1NO1NC	Momentary	LAS1 - BM - 11/Δ	R G
		Alternate	LAS1 - BM - 11Z/Δ	
	2NO2NC	Momentary	LAS1 - BM - 22/Δ	
		Alternate	LAS1 - BM - 22Z/Δ	
	3NO3NC	Momentary	LAS1 - BM - 33/Δ	
		Alternate	LAS1 - BM - 33Z/Δ	

Shape and Dimensions



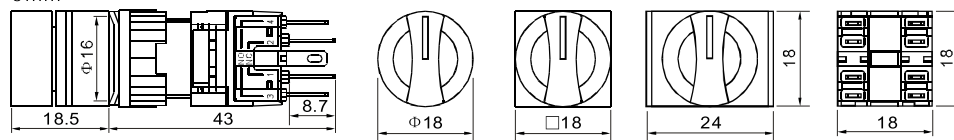
LAS1-B Selector Switches

Product Cutline

Shape	Type	Type Number	Remarks
	 90° 2 position maintain	LAS1 - BY - □X/21	<ul style="list-style-type: none"> ⦿ All the covers are black. ⦿ Can't be used with lamp. ⦿ Can control three circuit outputs.(you can ask us for the circuit diagram if you need)
	 90° 2 position return	LAS1 - BY - □X/23	
	 90° 3 position maintain	LAS1 - BY - □X/31	
	 90° 3 position half return	LAS1 - BY - □X/32	
	 90° 3 position self return	LAS1 - BY - □X/33	
	 90° 2 position maintain	LAS1 - BF - □X/21	
	 90° 2 position return	LAS1 - BF - □X/23	
	 90° 3 position maintain	LAS1 - BF - □X/31	
	 90° 3 position half return	LAS1 - BF - □X/32	
	 90° 3 position self return	LAS1 - BF - □X/33	
	 90° 2 position maintain	LAS1 - BJ - □X/21	
	 90° 2 position return	LAS1 - BJ - □X/23	
	 90° 3 position maintain	LAS1 - BJ - □X/31	
	 90° 3 position half return	LAS1 - BJ - □X/32	
	 90° 3 position self return	LAS1 - BJ - □X/33	













Shape and Dimensions

- ⦿ Panel Thickness 0.5~5mm



LAS1-B Key-lock Switches

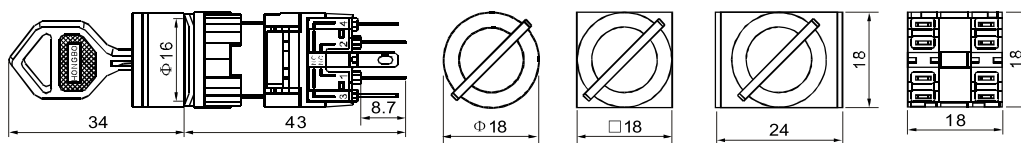
Product Cutline

Shape	Type	Type Number	Remarks
	 90° 2 position maintain	LAS1 - BY - □Y/21	<ul style="list-style-type: none"> ⦿ Two keys are supplied, which can be out in both positions. ⦿ All the keys are same.
	 90° 2 position return	LAS1 - BY - □Y/23	
	 90° 3 position maintain	LAS1 - BY - □Y/31	
	 90° 3 position half return	LAS1 - BY - □Y/32	
	 90° 3 position self return	LAS1 - BY - □Y/33	
	 90° 2 position maintain	LAS1 - BF - □Y/21	
	 90° 2 position return	LAS1 - BF - □Y/23	
	 90° 3 position maintain	LAS1 - BF - □Y/31	
	 90° 3 position half return	LAS1 - BF - □Y/32	
	 90° 3 position self return	LAS1 - BF - □Y/33	

Shape	Type	Type Number	Remarks
	90° 2 position maintain	LAS1 - BJ - □Y/21	<ul style="list-style-type: none"> Two keys are supplied, which can be out in both positions. All the keys are same.
	90° 2 position return	LAS1 - BJ - □Y/23	
	90° 3 position maintain	LAS1 - BJ - □Y/31	
	90° 3 position half return	LAS1 - BJ - □Y/32	
	90° 3 position self return	LAS1 - BJ - □Y/33	

Shape and Dimensions

Panel Thickness 0.5~5mm



LAS1-B Emergency Pushbuttons

Product Outline

Shape	Contact	Type Number	Remarks
A Type(can be illuminated) 	Monopole	LAS1 - BY - 11TSA/△/▲	
	Dipole	LAS1 - BY - 22TSA/△/▲	
	Three - pole	LAS1 - BY - 33TSA/△/▲	
B type 	Monopole	LAS1 - BY - 11TSB/△	
	Dipole	LAS1 - BY - 22TSB/△	
	Three - pole	LAS1 - BY - 33TSB/△	

Shape and Dimensions

Panel Thickness 0.5~5mm

