LAS1 Series A Type Pushbutton Switches

Characteristic

Specs

Having three head shape: round (Φ18mm), square (18×18mm) and rectangular (18×24mm), containing pilot lamps, pushbuttons, illuminated push buttons, selector switches, key-lock switches, buzzer and emergency switchs. The normal diameter of the installation hole is Φ16mm, and some type can be installed in Φ22mm 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

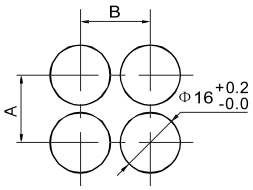
Its protective degree is IP40, IP65, some of type can reach IP67 with the seal cover.

Lamp Ratings

Lamp Type	AC LED Lamp (Standard)			Neon Lamp	
Rated Voltage	AC/DC6V	AC/DC12V	AC/DC24V	AC110V	AC220V
	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.

Installation Dimensions



Category	A	B
Round	≥18mm	≥18mm
Square	≥18mm	≥18mm
Rectangular	≥18mm	≥24mm
Mushroom	≥24mm	≥24mm
Big square	≥24mm	≥24mm
Big rectangular	≥18mm	≥24mm

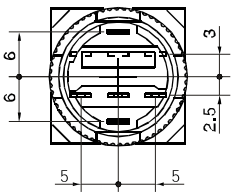
Switch Ratings

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

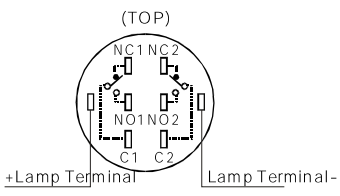
Specifications

Operating Temperature		-25℃ ~ +55℃(no freezing)
Operating Humidity		45 ~ 85%RH(no condensation)
Contact Material		- silver - silver alloy - gold-clad silver, cladding thickness is 3μm
Contact Resistance		≤50MΩ
Insulation Resistance		≥100MΩ
Dielectric strength	Between contact and lamp terminals :	2000V,A C 50Hz,1 min
	Between terminal of the same pole:	1000V,AC 50Hz,1 min
	Between terminal of different pole:	2000V,A C 50Hz,1 min
Vibration Resistance		50Hz,Amplitude 1.2mm p-p
Shock Resistance		≥10g
Life	Mechanical: Momentary Type	1,000,000times
	Mechanical: Alternate and Selector Type	500,000 times
	Mechanical: Key-lock and Emergency Type	200,000 times
	Electrical	≥50,000times
Terminal		Diameter of welded wire:2×0.8mm Area of copper wire:0.75mm2 max Connecting link:2.8×0.5mm
Solder Heat Resistance		230℃(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 selectorand 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 Pilot lamp

Product Cutline

Model Number	LAS1-AY-D/△/▲/◎	LAS1-AF-D/△/▲/◎	LAS1-AJ-D/△/▲/◎
Shape			
Remarks	R G Y O B W		

LAS1-A Pushbuttons,Illuminated Pushbuttons

Product Cutline

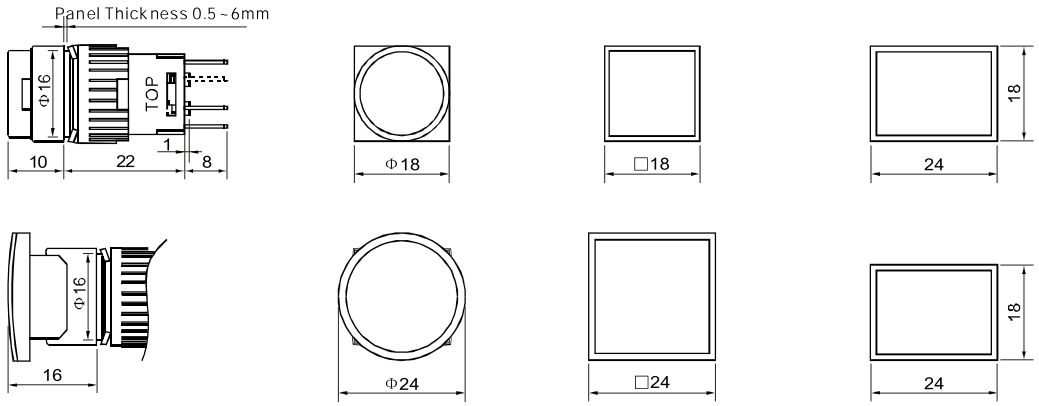
Note:SPDT single-pole double-throw,DPDT double-pole double Throw.

Shape	Contact	Operating Type	Type Number	Remarks
Round(can be illuminated) 	SPDT	Momentary	LAS1-AY-11/△/▲/◎	R G Y O B W N ◎ The black cover can't be used with the illuminated push buttons ◎ Protective Degree: IP40,IP65,IP67; IP67 should be installed with seal covers.
		Alternate	LAS1-AY-11Z/△/▲/◎	
	DPDT	Momentary	LAS1-AY-22/△/▲/◎	
		Alternate	LAS1-AY-22Z/△/▲/◎	
Square(can be illuminated) 	SPDT	Momentary	LAS1-AF-11/△/▲/◎	
		Alternate	LAS1-AF-11Z/△/▲/◎	
	DPDT	Momentary	LAS1-AF-22/△/▲/◎	
		Alternate	LAS1-AF-22Z/△/▲/◎	
Rectangular(can be illuminated) 	SPDT	Momentary	LAS1-AJ-11/△/▲/◎	
		Alternate	LAS1-AJ-11Z/△/▲/◎	
	DPDT	Momentary	LAS1-AJ-22/△/▲/◎	
		Alternate	LAS1-AJ-22Z/△/▲/◎	
Mushroom(can be illuminated) 	SPDT	Momentary	LAS1-AM-11/△/▲/◎	R G Y ◎ Protective Degree: IP40,IP65.
		Alternate	LAS1-AM-11Z/△/▲/◎	
	DPDT	Momentary	LAS1-AM-22/△/▲/◎	
		Alternate	LAS1-AM-22Z/△/▲/◎	

Note: SPDT signal-pole double-throw, DPDT double-pole double-throw.

Shape	Contact	Operating Type	Type Number	Remarks
Big Square(can be illuminated) 	SPDT	Momentary	LAS1-ADF-11/△/▲/◎	R G Y ◎ Protective Degree: IP40, IP65.
		Alternate	LAS1-ADF-11Z/△/▲/◎	
	DPDT	Momentary	LAS1-ADF-22/△/▲/◎	
		Alternate	LAS1-ADF-22Z/△/▲/◎	
Big Rectangular(can be illuminated) 	SPDT	Momentary	LAS1-ADJ-11/△/▲/◎	
		Alternate	LAS1-ADJ-11Z/△/▲/◎	
	DPDT	Momentary	LAS1-ADJ-22/△/▲/◎	
		Alternate	LAS1-ADJ-22Z/△/▲/◎	

Shape and Dimensions

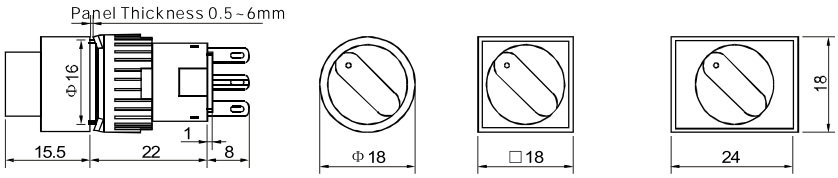


LAS1-A Selector Switches

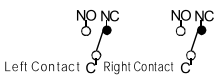
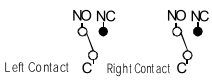
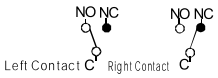
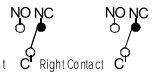
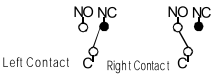
Product Cutline

Shape	Position	Contact	Type Number	Remarks
Round(can be illuminated) 	L R 90° 2 Position	SPDT	LAS1-AY-11X/2/△/▲/◎	R G Y N ◎ The black cover can't be used with the illuminated push buttons ◎ Protective Degree: IP40, IP65.
		DPDT	LAS1-AY-22X/2/△/▲/◎	
	L C R 45° 3 Position	DPDT	LAS1-AY-22X/3/△/▲/◎	
Square(can be illuminated) 	L R 90° 2 Position	SPDT	LAS1-AF-11X/2/△/▲/◎	
		DPDT	LAS1-AF-22X/2/△/▲/◎	
	L C R 45° 3 Position	DPDT	LAS1-AF-22X/3/△/▲/◎	
Rectangular(can be illuminated) 	L R 90° 2 Position	SPDT	LAS1-AJ-11X/2/△/▲/◎	
		DPDT	LAS1-AJ-22X/2/△/▲/◎	
	L C R 45° 3 Position	DPDT	LAS1-AJ-22X/3/△/▲/◎	

Shape and Dimensions



Contact Operation

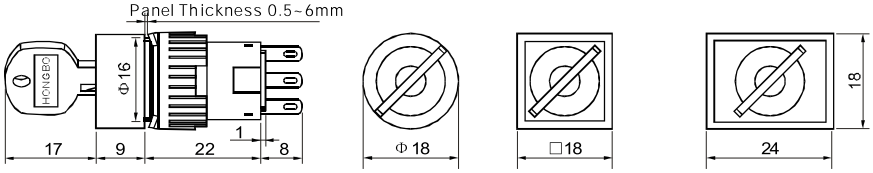
Position	Contact	Operating Position & Contact Operation		
		Left	Center	Right
90° 2 Position	1C			
	2C			
45° 3 Position	2C			

LAS1-A Key-lock Switches

Product Cutline

Shape	Position	Key Retained at Position●	Contact	Type	Remarks
Round 	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/◎	
Square 	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/◎	
rectangular 	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/◎	

Shape and Dimensions

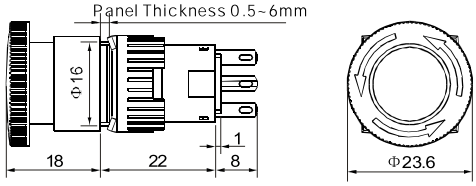


LAS1-A Emergency Pushbutton

Product Cutline

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

Shape and Dimensions

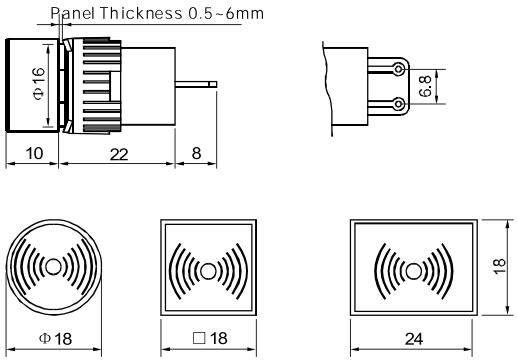


LAS1-A Buzzer Units

Specifications

Operating Temperature	-25℃ ~55℃
Operating Humidity	45-85%RH
Dielectric Strength	1000V
Sound Duration	Continuous, Discontinuous
Rated Sound Pressure & Frequency	75dB(1m)(Rated Voltage) 2300±300Hz
Operating Voltage	6VDC;12VDC;24VDC; 110VAC;220VAC

Shape and Dimensions



Product Cutline

Type Number	LAS1-AY-B/▲	LAS1-AF-B/▲	LAS1-AJ-B/▲
Shape			