

## LAS0 Series Pushbutton Switches

### **Product Overview**

#### **Specs**

LAS0seriesA,B,C,K type pushbutton switches are derivatives of LAS0 series. They are innovated from the original stucture of LAS0 series, which can be installed more easily and firmly and can be operated more reliably and stably. There are three standard diameters of installation hole  $\Phi 22mm$ ,  $\Phi 25mm$  and  $\Phi 30mm$ , can be using wide area.

#### Performance

Using high quality inflaming retarding materials. Switch unit is separated independently and the insulating performance is very well.

The product meets standards of IEC60947 - 5-1,GB14048.5 etc.

#### Structure

The switch unit is slow - break and self - cleaning. It uses modular combination mode and you can combine from one to eight switch units optional, so can make the product meet the requirement of many special control circuits.

#### **Protective Degree**

The standard is IP40 and some types can reach Ip67 with the seal cover.

#### Switch Ratings

Rated Insulation Voltage	Ui: 500V					
ThermalCurrent	Ith:10A					
Rated Voltage	24V 110V 220V 380V 500				500V	
Direct Current	10A	2.2A	1.1A			
Alternating Current P.F=0.7		10A	6A	4A	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 µ m			
	Contact Resistance	≤50mΩ			
	Insulation Resistance	≥100 M Ω			
	Dielectric Strength	3000 V, AC 50Hz			
	Vibration Resistance	50Hz,Amplitude 1.0mm p - p			
	Shock Resistance	≥10g			
Life	Mechanical	Momentary type:≥1,000,000 times; Alternate type and selector type:≥500,000 times Key-lock type and emergency type:≥200,000times			
	Electrical	≥50,000times			
	Terminal	Thread connection, diameter of welded wire: $2\times 1.5$ mm maxConnecting link: $6.3\times 0.8$ mm			
Operating Force		800gf~2200gf,according to the quantity of switch unit			
On another Travel		A,B,C type:about 5.5mm (pushbutton)			
,	Operating Travel	K type:about 3.8mm(pushbutton)			

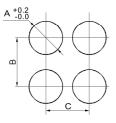
## Lamp Ratings

Lamp Type	AC LED Lamp					ب ب	AC/DC:
Rated	AC/DC 6V	AC/DC 12V	AC/DC110V	AC/DC220V	AC/DC380V	ent	(resistor step-down) a • b
Voltage	AC/DC 24V AC 110V AC 220V AC 380V				/alc		
Rated Current	≤20mA				ļū .	AC: a C D	
Life	40,000 hours				шυ	(capacitor step-down)	
Cover Color	R G Y O B W						Suitable Frequency:50 ~ 60Hz

Note: 1.The lamp contains current - limiting resistor inside and doesn't need connect outside..

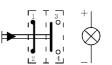
2. The standard is using AC/DC LED lamp, DC LED lamp, dual-color LED lamp and other voltages can be customized.

#### Installation Dimensions



Category	Α	В	С	Remarks
Normal Type	Φ22.5 or Φ25.5 or Φ30.5	≥50	≥35	4 11-21
Selector Type&Key-lock Type		≥50	≥35	1,Unit:mm
Mushroom		≥50	≥42	2, Band C both are the
Big Mushroom		≥70	≥70	minim um size.

## Circuit Diagram



Switch code: 11 1,2 are normal closed; 3,4 are normal opened;

o, rais iloimai opolisa,

The Contact Pair's Close-open State Chart of the Selector Switches and Key-lock Switches

Is the same as Y090 series (see P21)

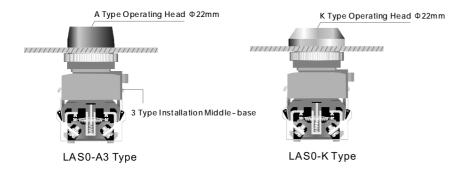
-29-



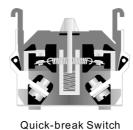
### Structure Charts







## Switch Base Diagram





Slow-break Switch

www.onpow.com



# LAS0 Series A Type Pushbutton Switches

## Implication of Type

Note:The operating head and installation Middle-base of A3 type cann't applicable to A1 and A2 types. The detailed ratings are included in "Product Cutline" .

LASO - A●	* -	_ 🗆		<i>'</i>	/ △	1 🔺	/ ©
Code of series  • expresses specification of installation Middle-base (see "Structure Charts")	The front shape: Y round F square J rectangular	Contact Structure: 11 1NO1NC 22 2NO2NC 33 3NO3NC 44 4NO4NC You can choose combination modes according to your needs; for example If you need slow-break structure*, please add M to the front, :*M11".	Operating type: D pilot lamp Z alternate type X selector type XB lever type Y key-lock type M mushroom type TS emergency type S rectangular type	<ul> <li>◇ expresses selector and key-lock operating position:</li> <li>2 two position</li> <li>3 three position</li> <li>◆ expresses selector and key-lock operating type:</li> <li>1 maintain</li> <li>2 half return</li> <li>3 self return</li> </ul>	Color: R red G green Y yellow O orange B blue W white N black	Lamp Voltage (Please check the lamp rating)	Protective Degree: FP IP67 No letter means IP40

#### Product Cutline

Note: The products in big pictures are all 1 type installation middle-base type; and the small picture is 2 types installation middile-base type.; the 3 type are included in P33.

Sha	pe	Operating Type	Type Number	Dimension	Remarks
Pilot Lamp		Pilot Lamp	LAS0-A1Y-D/△/▲/◎	12.8 43.7	B W Protective Degree: 1P40,IP67 1P67 should be installed with seal cover.
Round (can be illumina	ated)	Momentary	LASO-A1Y-□/△/▲/◎	62	BWN  The black cover can't be used with
		Alternate	LAS0-A1Y-□Z/△/▲/◎	12.8 49.7+(17)	be used with lamp.  Protective Degree: IP40,IP67 IP67 should be installed with seal cover.
Square (can be illumin	ated)	Momentary	LAS0-A1F-□/△/▲	62	RGYO
		Alternate	LAS0-A1F-□Z/△/▲	12.8 49.7+(17)	The black cover can't be used with lamp.
Mushroom (can be illur	minated)	Momentary	LAS0-A1Y-□M/△/▲	6.2 0.2 0.2 0.2 0.2 49.7+(17)	R G  The dimension of head is:  0 40 mm,  0 60 mm
Emergency Pushbutton		Push-lock Turn-reset	LAS0-A1Y-□TS/△	24 49.7	R G

-31-



Note: The products in big pictures are all 1 type installation middle-base type; and the small picture is 2 types installation middle-base type.; the 3 type are included in P33.

the 3 type are included in P33.	O	Type Number	D: '	D
Shape	1 0 31		Dimension	Remarks
Round Selector Switch	90° 2 position maintain	LAS0-A1Y- □X/21/ △	6.2	G R
	90° 2 position return	LAS0-A1Y- □X/23/ △		
	<sup>L</sup> C R 45° 3 position maintain	LAS0-A1Y- □X/31/ △	4	
	L CR 45°3 position half return	ition half return LASO-A1Y- $\square$ X/32/ $\triangle$ 24.5 49.7	, <del>-</del>	N
	L C R 45° 3 position self return	LAS0-A1Y- □X/33/ △	F 1. 1	
Square Selector Switch	<sup>L</sup> 90° 2 position maintain	LAS0-A1F-□X/21/△		
	90° 2 position return	LAS0-A1F- □ X/23/ △	6.2	R
	L C R 45° 3 position maintain	LAS0-A1F-□X/31/△	44	G N
	45°3 position half return	LAS0-A1F- □ X/32/ △	24.5 49.7	N
	L C R 45° 3 position self return	LAS0-A1F- □ X/33/ △	15 16 1	
Round Lever Switch	<sup>L</sup> 90° 2 position maintain	LAS0-A1Y-□XB/21/△		
	90° 2 position return	LAS0-A1Y-□XB/23/△	6.2	R G N
	L C R 45° 3 position maintain	LAS0-A1Y-□XB/31/△	4	
	L C R 45° 3 position half return	LAS0-A1Y-□XB32/△	24.5 49.7	
	L C R 45° 3 position self return	LAS0-A1Y-□XB33/△		
Square Lever Switch	<sup>L</sup> <sup>R</sup> 90° 2 position maintain	LAS0-A1F-□XB21/△		
	90° 2 position return	LAS0-A1F-□XB23/△	6.2	R G N
	L C R 45° 3 position maintain	LAS0-A1F-□XB31/△	4+	
	L CR 45°3 position half return	LAS0-A1F-□XB32/△	24.5 49.7	
	L C R 45° 3 position self return	LAS0-A1F-□XB33/△		
Key-lock Switch	<sup>R</sup> 90° 2 position maintain	LAS0-A1Y- □Y/21		
	90° 2 position return	LAS0-A1Y- □Y/23	6.2	
	<sup>c</sup> R 45° 3 position maintain	LAS0-A1Y- □Y/31	4	<ul><li>Two keys are supplied.</li></ul>
	L CR 45°3 position half return	LAS0-A1Y-□Y/32	23 49.7	
	R 45° 3 position self return	LAS0-A1Y- □Y/33	<del></del>	
Rectangular (can be used with lamp)	Double Head Momentary	LAS0-A1J-□S/▲	6.2 (17) 23 17.1 49.7+(17)	

-32www.onpow.com