

## 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 structure 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  $\Phi 22\text{mm}$ ,  $\Phi 25\text{mm}$  and  $\Phi 30\text{mm}$ , 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				
Thermal Current	Ith:10A				
Rated Voltage	24V	110V	220V	380V	500V
Direct Current	10A	2.2A	1.1A		
Alternating Current P.F=0.7		10A	6A	4A	2A

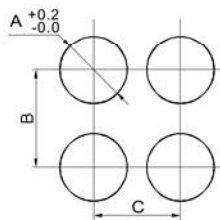
#### Lamp Ratings

Lamp Type	AC LED Lamp					Equivalent Circuit	
Rated Voltage	AC/DC 6V	AC/DC 12V	AC/DC 110V	AC/DC 220V	AC/DC 380V		AC/DC: (resistor step-down)
	AC/DC 24V		AC 110V	AC 220V	AC 380V		
Rated Current	$\leq 20\text{mA}$						AC: (capacitor step-down)
Life	40,000 hours						
Cover Color							
						Suitable Frequency:50 ~ 60Hz	

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

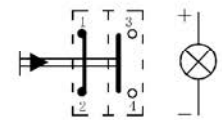
2. The standard is using AC/DC LED lamp,DC LED lamp, dual-color LED lamp and other voltages can be customized.

#### Installation Dimensions



Category	A	B	C	Remarks
Normal Type	$\Phi 22.5$ or $\Phi 25.5$ or $\Phi 30.5$	$\geq 50$	$\geq 35$	1, Unit:mm 2,Band C both are the minimum size.
Selector Type&Key-lock Type		$\geq 50$	$\geq 35$	
Mushroom		$\geq 50$	$\geq 42$	
Big Mushroom		$\geq 70$	$\geq 70$	

#### Circuit Diagram



Switch code : 11

1,2 are normal closed;  
3,4 are normal opened;

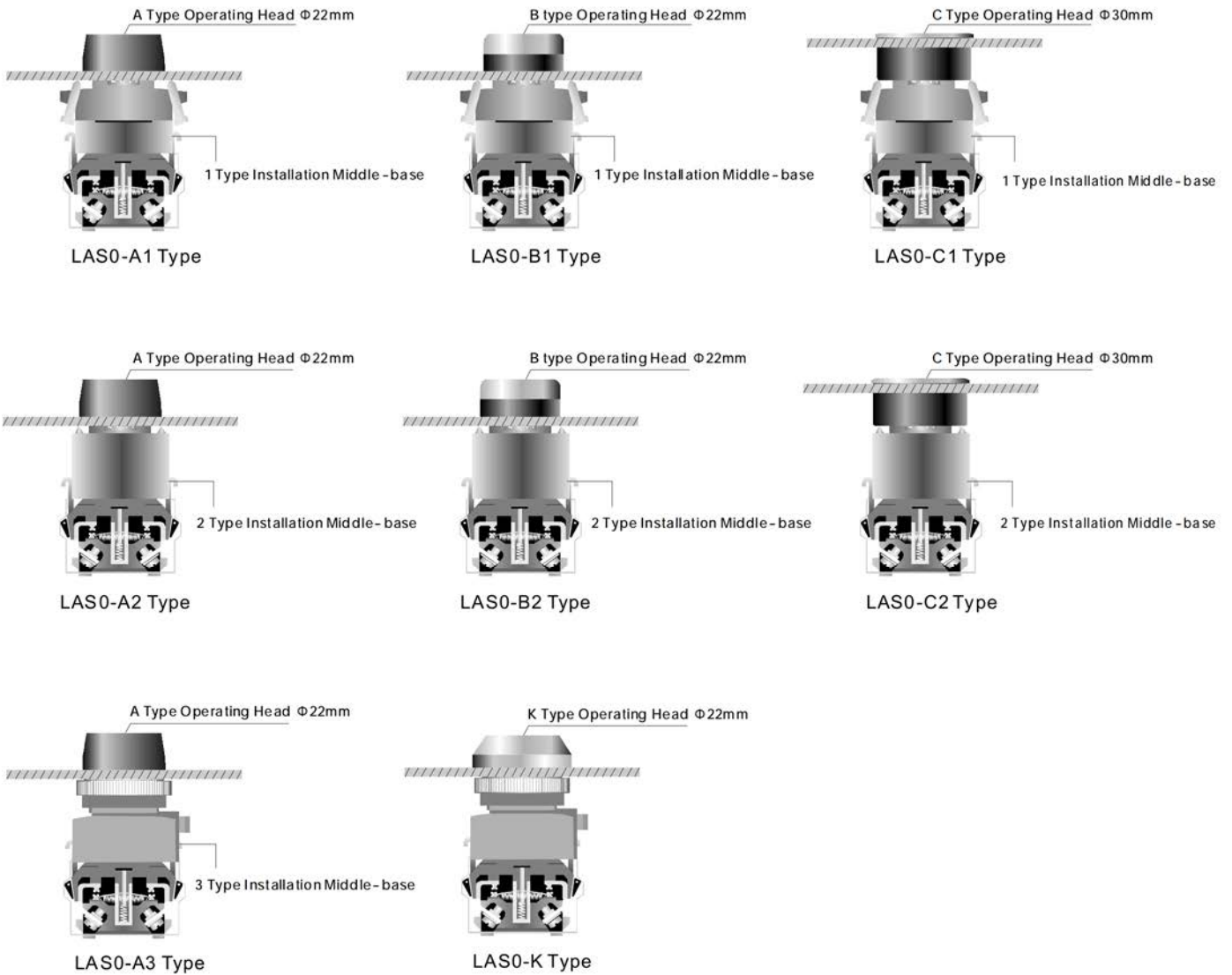
### Specifications

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 $\mu\text{m}$	
Contact Resistance	$\leq 50\text{m}\Omega$	
Insulation Resistance	$\geq 100\text{M}\Omega$	
Dielectric Strength	3000 V, AC 50Hz	
Vibration Resistance	50Hz,Amplitude 1.0mm p-p	
Shock Resistance	$\geq 10\text{g}$	
Life	Mechanical	Momentary type: $\geq 1,000,000$ times; Alternate type and selector type: $\geq 500,000$ times Key-lock type and emergency type: $\geq 200,000$ times
	Electrical	$\geq 50,000$ times
Terminal	Thread connection, diameter of welded wire: 2 $\times$ 1.5mm maxConnecting link:6.3 $\times$ 0.8mm	
Operating Force	800gf-2200gf,according to the quantity of switch units	
Operating Travel	A,B,C type:about 5.5mm(pushbutton)	
	K type:about 3.8mm(pushbutton)	

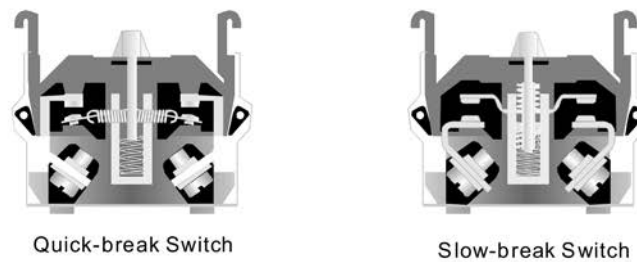
### The Contact Pair's Close-open State Chart of the Selector Switches and Key-lock Switches

⊙ Is the same as Y090 series ( see P21 )

**Structure Charts**



**Switch Base Diagram**



## LAS0 Series A Type Pushbutton Switches

### Implication of Type

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

LAS0 -	A ●	★	-	□	■	/	◇ ◆	/	△	/	▲	/	◎
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	◇ expresses selector and key-lock operating position: 2 two position 3 three position ◆ expresses selector and key-lock operating type: 1 maintain 2 half return 3 self return	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 middle-base type; the 3 type are included in P33.

Shape	Operating Type	Type Number	Dimension	Remarks
Pilot Lamp 	Pilot Lamp	LAS0-A1Y-D/△/▲/◎		 ◎ Protective Degree: IP40, IP67 IP67 should be installed with seal cover.
Round (can be illuminated) 	Momentary	LAS0-A1Y-□/△/▲/◎		 ◎ The black cover can't be used with lamp. ◎ Protective Degree: IP40, IP67 IP67 should be installed with seal cover.
	Alternate	LAS0-A1Y-□Z/△/▲/◎		
Square (can be illuminated) 	Momentary	LAS0-A1F-□/△/▲		 ◎ The black cover can't be used with lamp.
	Alternate	LAS0-A1F-□Z/△/▲		
Mushroom (can be illuminated) 	Momentary	LAS0-A1Y-□M/△/▲		 ◎ The dimension of head is: Ø 40mm, Ø 60mm
Emergency Pushbutton 	Push-lock Turn-reset	LAS0-A1Y-□TS/△		

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.

Shape	Operating Type	Type Number	Dimension	Remarks
	90° 2 position maintain	LAS0-A1Y-□X/21/△		
	90° 2 position return	LAS0-A1Y-□X/23/△		
	45° 3 position maintain	LAS0-A1Y-□X/31/△		
	45° 3 position half return	LAS0-A1Y-□X/32/△		
	45° 3 position self return	LAS0-A1Y-□X/33/△		
	90° 2 position maintain	LAS0-A1F-□X/21/△		
	90° 2 position return	LAS0-A1F-□X/23/△		
	45° 3 position maintain	LAS0-A1F-□X/31/△		
	45° 3 position half return	LAS0-A1F-□X/32/△		
	45° 3 position self return	LAS0-A1F-□X/33/△		
	90° 2 position maintain	LAS0-A1Y-□XB/21/△		
	90° 2 position return	LAS0-A1Y-□XB/23/△		
	45° 3 position maintain	LAS0-A1Y-□XB/31/△		
	45° 3 position half return	LAS0-A1Y-□XB/32/△		
	45° 3 position self return	LAS0-A1Y-□XB/33/△		
	90° 2 position maintain	LAS0-A1F-□XB21/△		
	90° 2 position return	LAS0-A1F-□XB23/△		
	45° 3 position maintain	LAS0-A1F-□XB31/△		
	45° 3 position half return	LAS0-A1F-□XB32/△		
	45° 3 position self return	LAS0-A1F-□XB33/△		
	90° 2 position maintain	LAS0-A1Y-□Y/21		Two keys are supplied.
	90° 2 position return	LAS0-A1Y-□Y/23		
	45° 3 position maintain	LAS0-A1Y-□Y/31		
	45° 3 position half return	LAS0-A1Y-□Y/32		
	45° 3 position self return	LAS0-A1Y-□Y/33		
	Double Head Momentary	LAS0-A1J-□S/▲		