

LAS1-B Pushbutton Switch

Characteristic

LAS1-B series products have complete range, some products have three types of head shape: round, square and rectangular (see details from content page) and each pushbutton could use 1~3 pcs elements(except for pin terminal version), could meet customer's different requirements.

Specs Including pushbutton, signal light, emergency-stop switch, selector switch, key-lock switch, mushroom switch; mounting hole diameter is $\Phi 16\text{mm}$.

Performance Stable function, low contact resistance, strong insulation resistance and anti-vibration etc. Meet the standards of IEC60947-5-1, GB/T14048.5 etc.

Structure The switch element is "double-break fast-motion, self-cleaning". Each element contains 1NO+1NC contacts, each pushbutton could use 3 pcs elements at most.

Protective Degree IP40

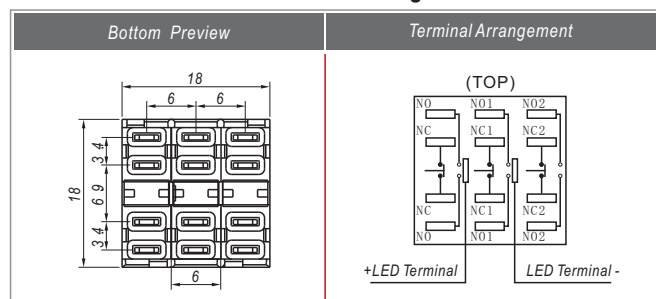


LAS1-B Switch Ratings

Rated Insulation Voltage U_i			250V			
Thermal Current I_{th}			5A Temperature rise can't over the Max. rating current			
Rated Voltage			12V	24V	110V	220V
Rated Current	AC 50/60Hz	Resistive Load	—	—	5A	3A
		Inductive Load	—	—	3A	2A
	DC	Resistive Load	5A	5A	1A	0.5A
		Inductive Load	2A	2A	0.2A	0.1A
Contact Material			Silver Alloy			

Minimum load: 3VAC/DC 5mA (use range depend on operation environment and load type).

Bottom Preview and Terminal Arrangement



Installation Dimension

Type	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	$\geq 24\text{mm}$	$\geq 24\text{mm}$
E-stop Switch	$\geq 32\text{mm}$	$\geq 32\text{mm}$


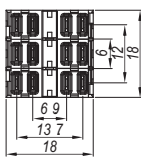
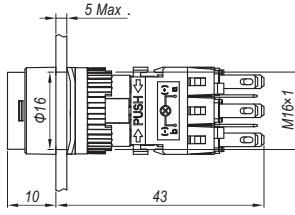
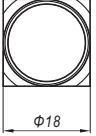

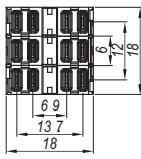
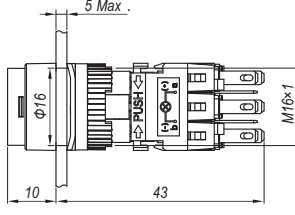
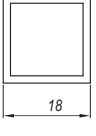

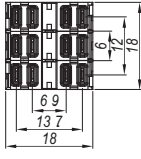
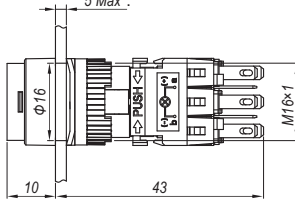
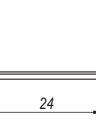

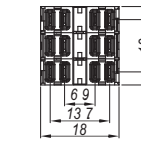
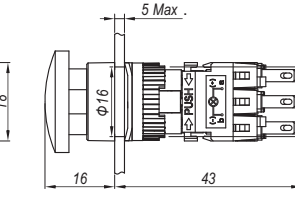
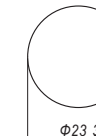

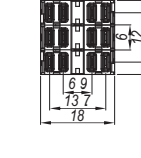
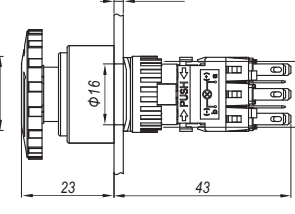


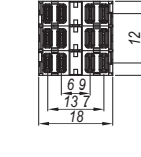
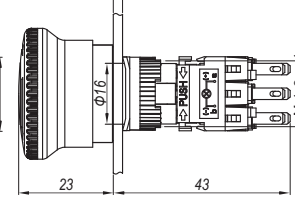

Specification

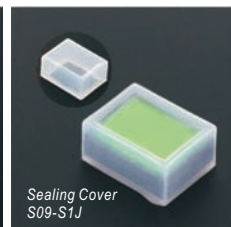
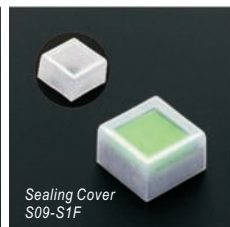
Operating Temperature	-25°C~+55°C (no freezing) Keep good ventilation round the switch.	
Operating Humidity	45~85%RH(no condensation)	
Contact Resistance	$\leq 50\text{m}\Omega$	
Insulation Resistance	$> 100\text{M}\Omega$ (500VDC)	
Rated insulation Voltage	250VAC/DC	
Dielectric Strength	Between contact and LED terminals	2000V, AC 50Hz, 1 min
	Between terminals of the same pole	1500V \leq AC 50Hz, 1 min
	Between terminals of different poles	2000V \leq AC 50Hz, 1 min
Vibration Resistance	50Hz \times amplitude 1.2mm	
Mechanical Life	Momentary Pushbutton	1,000,000 times
	Latching Pushbutton, Selector Switch	500,000 times
	Key-lock Switch	200,000 times
Electrical Life	50,000 times	
Wiring	Diameter of wire:	2 \times 0.8mm max
	Area of copper wire:	0.75mm ²
	Pin Terminal:	2.8 \times 0.5mm
Solder Heat Resistance	320 \times 3s	
Operating Travel	About 3mm	
Operating Force	About 2.8N(1NO1NC) / About 3.5N(2NO2NC) /	
	About 4.7N(3NO3NC)	

Lamp Ratings

LED Life	Current	Allowable Voltage Fluctuation Range	Circuit Diagram
≥ 40000 hours	$\leq 24\text{V}$ about 15mA $\geq 110\text{V}$ about 2mA	DC: $\pm 10\%$ AC: $\pm 20\%$	<p>Use internal resistor and no distinction between positive and negative poles.</p>

LAS1-B Pushbutton Switch

Φ16mm Product Outline	Specification	Dimension		
 <p>Pushbutton (can be illuminated) LAS1-BY-□ ■/△/▲</p>	<p>Contact□ 1NO1NC / 2NO2NC / 3NO3NC Operation Type■ No letter means momentary / Z: Latching Color△ R G Y B W N LED Voltage▲ 6V / 12V / 24V / 220V Protection Degree IP40 Accessory Switch Guard S01 / Sealing Cover S09-S1Y</p>			
 <p>Pushbutton (can be illuminated) LAS1-BF-□ ■/△/▲</p>	<p>Contact□ 1NO1NC / 2NO2NC / 3NO3NC Operation Type■ No letter means momentary / Z: Latching Color△ R G Y B W N LED Voltage▲ 6V / 12V / 24V / 220V Protection Degree IP40 Accessory Switch Guard S01 / Sealing Cover S09-S1F</p>			
 <p>Pushbutton (can be illuminated) LAS1-BJ-□ ■/△/▲</p>	<p>Contact□ 1NO1NC / 2NO2NC / 3NO3NC Operation Type■ No letter means momentary / Z: Latching Color△ R G Y B W N LED Voltage▲ 6V / 12V / 24V / 220V Protection Degree IP40 Accessory Switch Guard S01 / Sealing Cover S09-S1J</p>			
 <p>Mushroom LAS1-BM-□ ■/△</p>	<p>Contact□ 1NO1NC / 2NO2NC / 3NO3NC Operation Type■ No letter means momentary / Z: Latching Color△ R G LED Voltage▲ 6V / 12V / 24V / 220V Protection Degree IP40 Accessory T34-16</p>			
 <p>E-stop Switch (can be illuminated) LAS1-BY-□ TSA/▲</p>	<p>Contact□ 1NO1NC / 2NO2NC / 3NO3NC LED Voltage▲ 6V / 12V / 24V / 220V Protection Degree IP40</p>			
 <p>E-stop Switch Type B LAS1-BY-□ TSB</p>	<p>Contact□ 1NO1NC / 2NO2NC / 3NO3NC Protection Degree IP40</p>			

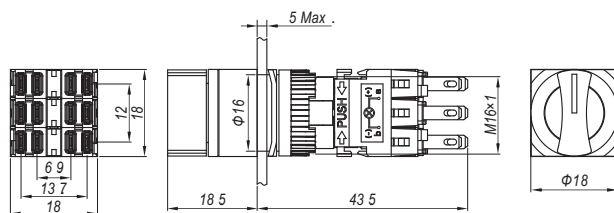


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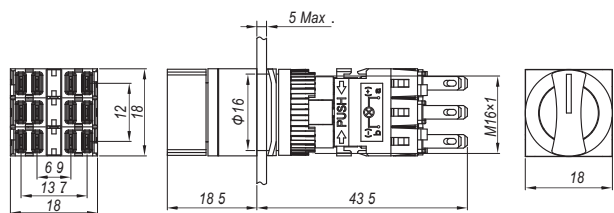
Φ16mm Product Outline Specification Dimension



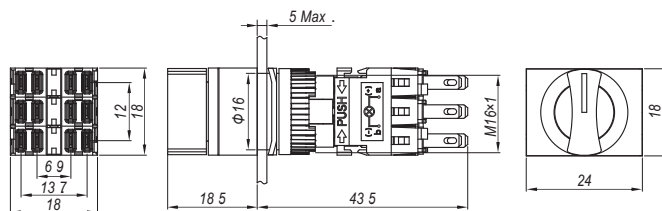
Contact □ 1NO1NC / 2NO2NC / 3NO3NC
 Operation Type ◇◆ Refer to notes
 Protection Degree IP40



Contact □ 1NO1NC / 2NO2NC / 3NO3NC
 Operation Type ◇◆ Refer to notes
 Protection Degree IP40



Contact □ 1NO1NC / 2NO2NC / 3NO3NC
 Operation Type ◇◆ Refer to notes
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Notes

- Operation Position ◇◆
 - 21:
 - 23:
 - 31:
 - 32:
 - 33:


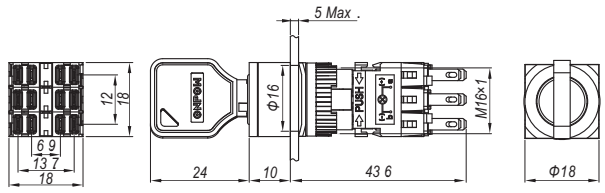

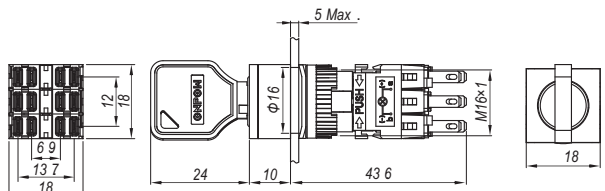

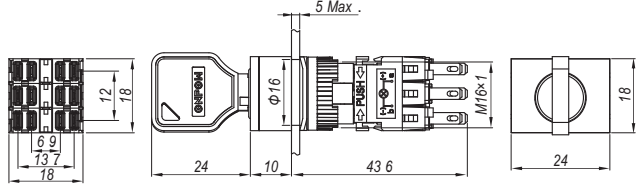
32 is return from right, could customize for return from left
- All caps are black; can't be illuminated; could control 3 circuits output separately

Contact State of Selector and Key-lock Switch

Switch Type / Operation Position	90° 2 Position			90° 3 Position			
	1NO1NC	2NO2NC	3NO3NC	2NO2NC	2NO2NC	2NO2NC	3NO3NC




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
Φ16mm Product Cutline	Specification	Dimension
 Key-lock Switch LAS1-BY-□ Y/◇ ◆	Contact □ 1NO1NC / 2NO2NC / 3NO3NC Operation Type ◇ ◆ Refer to notes Protection Degree IP40	
 Key-lock Switch LAS1-BF-□ Y/◇ ◆	Contact □ 1NO1NC / 2NO2NC / 3NO3NC Operation Type ◇ ◆ Refer to notes Protection Degree IP40	
 Key-lock Switch LAS1-BJ-□ Y/◇ ◆	Contact □ 1NO1NC / 2NO2NC / 3NO3NC Operation Type ◇ ◆ Refer to notes Protection Degree IP40	

Notes


- ⦿ Operation Position




21: L R




23: L R



31: L C R






32: L C R



33: L C R

32 is return from right, could customize for return from left
- ⦿ Provide 2 keys, need rotate into position when using. The keys are removable at each position, also can be customized for maintained at specified position. All keys are same.

Contact State of Selector and Key-lock Switch

Switch Type Operation Position	90° 2 Position			90° 3 Position			
	1NO1NC	2NO2NC	3NO3NC	2NO2NC	2NO2NC	2NO2NC	3NO3NC
	● ● ○ ○	● ● ● ● ○ ○ ○ ○	● ● ● ● ● ● ○ ○ ○ ○ ○ ○	● ● ● ● ○ ○ ○ ○	● ● ● ● ○ ○ ○ ○	● ● ● ● ○ ○ ○ ○	● ● ● ● ● ● ○ ○ ○ ○ ○ ○
				● ● ● ● ○ ○ ○ ○	● ● ● ● ○ ○ ○ ○	● ● ● ● ○ ○ ○ ○	● ● ● ● ● ● ○ ○ ○ ○ ○ ○
	● ● ○ ○	● ● ● ● ○ ○ ○ ○	● ● ● ● ● ● ○ ○ ○ ○ ○ ○	● ● ● ● ○ ○ ○ ○	● ● ● ● ○ ○ ○ ○	● ● ● ● ○ ○ ○ ○	● ● ● ● ● ● ○ ○ ○ ○ ○ ○

