

Characteristic

MR-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 Φ16mm.

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.

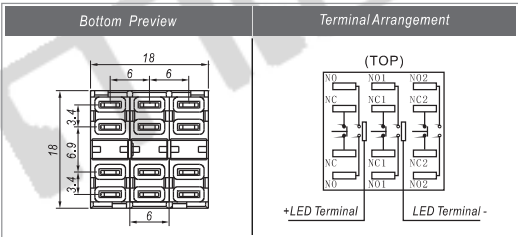
Protective Degree IP40

MR-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	≥18mm	≥18mm
	Square	≥18mm	≥18mm
	Rectangular	≥18mm	≥24mm
	Mushroom	≥24mm	≥24mm
	E-stop Switch	≥32mm	≥32mm

Specification

Operating Temperature		-25℃~+55℃ (no freezing)
Operating Humidity		45~85%RH (no condensation)
Contact Resistance		≤50mΩ
Insulation Resistance		>100MΩ (500VDC)
Rated insulation Voltage		250VAC/DC
Dielectric Strength	Between contact and LED terminals	2000V, AC 50Hz, 1 min
	Between terminals of the same pole	1500VAC 50Hz, 1 min
	Between terminals of different poles	2000VAC 50Hz, 1 min
	Vibration Resistance	50Hz&litude 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: 2×0.8mm max
		Area of copper wire: 0.75mm²
Solder Heat Resistance		Pin Terminal: 2.8/0.5mm
Operating Travel		320j 3s
Operating Force		About 3mm
		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	≤24V about 15mA ≥110V about 2mA	DC: ±10% AC: ±20%	Use internal resistor and no distinction between positive and negative poles.

PART NUMBERS ON THIS DRAWING
MR-LAS1-BF MR-LAS1-BF-X MR-LAS1-BF-Y MR-LAS1-BJ MR-LAS1-BJ-X MR-LAS1-BJ-Y MR-LAS1-BM
MR-LAS1-BY MR-LAS1-BY-TSA MR-LAS1-BY-TSB MR-LAS1-BY-X MR-LAS1-BY-Y

16 MM EMERGENCY STOP SWITCH TYPE B				
MR-LAS1-B SERIES				
PART NO	MR-LAS1-B			
DWG NO	MR-LAS1-B		SHEET 1 OF 4	REV A
UNITS: mm	SCALE: NTS - DO NOT SCALE		SIZE A4	DATE 2026-09-22

Φ16mm Product Outline	Specification	Dimension
Pushbutton(can be illuminated) LAS1-BY-□ ■/△/▲	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	
Pushbutton(can be illuminated) LAS1-BF-□ ■/△/▲	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	
Pushbutton(can be illuminated) MR-LAS1-BJ-□ ■/△/▲	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	
Mushroom MR-LAS1-BM-□ ■/△	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	
E-stop Switch(can be illuminated) MR-LAS1-BY-□ TSA/▲	Contact: 1NO1NC / 2NO2NC / 3NO3NC LED Voltage ▲ 6V / 12V / 24V / 220V Protection Degree IP40	
E-stop Switch Type B MR-LAS1-BY-□ TSB	Contact: 1NO1NC / 2NO2NC / 3NO3NC Protection Degree IP40	

PART NUMBERS ON THIS DRAWING

MR-LAS1-BF MR-LAS1-BF-X MR-LAS1-BF-Y MR-LAS1-BJ MR-LAS1-BJ-X MR-LAS1-BJ-Y MR-LAS1-BM
 MR-LAS1-BY MR-LAS1-BY-TSA MR-LAS1-BY-TSB MR-LAS1-BY-X MR-LAS1-BY-Y

16 MM EMERGENCY STOP SWITCH TYPE B

MR-LAS1-B SERIES

Micro-Ray

PART NO	MR-LAS1-B	SHEET	2 OF 4	REV	A
DWG NO	MR-LAS1-B	SIZE	A4	DATE	2026-09-22
UNITS: mm	SCALE: NTS - DO NOT SCALE				

Φ16mm Product Outline	Specification	Dimension
Selector Switch LAS1-BY-□ X/◇◆	Contact□ 1NO1NC / 2NO2NC / 3NO3NC Operation Type◇◆ Refer to notes Protection Degree IP40	
Selector Switch MR-LAS1-BF-□ X/◇◆	Contact□ 1NO1NC / 2NO2NC / 3NO3NC Operation Type◇◆ Refer to notes Protection Degree IP40	
Selector Switch MR-LAS1-BJ-□ X/◇◆	Contact□ 1NO1NC / 2NO2NC / 3NO3NC Operation Type◇◆ Refer to notes Protection Degree IP40	

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

PART NUMBERS ON THIS DRAWING
MR-LAS1-BF MR-LAS1-BF-X MR-LAS1-BF-Y MR-LAS1-BJ MR-LAS1-BJ-X MR-LAS1-BJ-Y MR-LAS1-BM
MR-LAS1-BY MR-LAS1-BY-TSA MR-LAS1-BY-TSB MR-LAS1-BY-X MR-LAS1-BY-Y

16 MM EMERGENCY STOP SWITCH TYPE B MR-LAS1-B SERIES		Micro-Ray	
PART NO	MR-LAS1-B		
DWG NO	MR-LAS1-B	SHEET 3 OF 4	REV A
UNITS: mm	SCALE: NTS - DO NOT SCALE	SIZE A4	DATE 2026-09-22

Φ16mm Product Outline	Specification	Dimension
Key-lock Switch LAS1-BY-□ Y/◇◆	Contact□ 1NO1NC / 2NO2NC / 3NO3NC Operation Type◇◆ Refer to notes Protection Degree IP40	Technical drawing of the LAS1-BY switch. It includes three views: a front view showing the terminal block with dimensions 12mm (height) and 18mm (width); a side view showing the switch body with dimensions 24mm (width), 10mm (depth), and 43.6mm (length); and a top view showing the circular mounting hole with a diameter of 18mm. The terminal block has a height of 5.9mm and a width of 13.7mm. The switch body has a diameter of 16mm (Φ16) and a maximum height of 5mm (5 Max.). The mounting hole has a diameter of 18mm (Φ18) and a thread of M16x1.
Key-lock Switch LAS1-BF-□ Y/◇◆	Contact□ 1NO1NC / 2NO2NC / 3NO3NC Operation Type◇◆ Refer to notes Protection Degree IP40	Technical drawing of the LAS1-BF switch. It includes three views: a front view showing the terminal block with dimensions 12mm (height) and 18mm (width); a side view showing the switch body with dimensions 24mm (width), 10mm (depth), and 43.6mm (length); and a top view showing the circular mounting hole with a diameter of 18mm (Φ18). The terminal block has a height of 5.9mm and a width of 13.7mm. The switch body has a diameter of 16mm (Φ16) and a maximum height of 5mm (5 Max.). The mounting hole has a diameter of 18mm (Φ18) and a thread of M16x1.
Key-lock Switch LAS1-BJ-□ Y/◇◆	Contact□ 1NO1NC / 2NO2NC / 3NO3NC Operation Type◇◆ Refer to notes Protection Degree IP40	Technical drawing of the LAS1-BJ switch. It includes three views: a front view showing the terminal block with dimensions 12mm (height) and 18mm (width); a side view showing the switch body with dimensions 24mm (width), 10mm (depth), and 43.6mm (length); and a top view showing the circular mounting hole with a diameter of 18mm (Φ18). The terminal block has a height of 5.9mm and a width of 13.7mm. The switch body has a diameter of 16mm (Φ16) and a maximum height of 5mm (5 Max.). The mounting hole has a diameter of 18mm (Φ18) and a thread of M16x1.

Notes

- 21: 
 23: 
 31: 
 32: 
 33: 
- 32 is return from right, could customize for return from left

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
							
							
							

PART NUMBERS ON THIS DRAWING

MR-LAS1-BF MR-LAS1-BF-X MR-LAS1-BF-Y MR-LAS1-BJ MR-LAS1-BJ-X MR-LAS1-BJ-Y MR-LAS1-BM
MR-LAS1-BY MR-LAS1-BY-TSA MR-LAS1-BY-TSB MR-LAS1-BY-X MR-LAS1-BY-Y

16 MM EMERGENCY STOP SWITCH TYPE B

MR-LAS1-B SERIES

PART NO

MR-LAS1-B

DWG NO

MR-LAS1-B

UNITS: mm

SCALE: NTS - DO NOT SCALE

Micro-Ray

SHEET

4 OF 4

REV

A

SIZE

A4

DATE

2026-09-22