

Characteristic

MR-LAS1 series products have complete range, good-looking appearance. Some products have three types of head shape: round, square and rectangular (see details from content page). Have two kinds of switch base: pin terminal and soldering type, 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 1~4 pcs elements (except for pin terminal version).

Protective Degree IP40

Switch Ratings

Rated Insulation Voltage Ui			250V			
Thermal Current Ith			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).

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; ≥ 110V need external resistor.

Bottom Preview

MR-LAS1 Ordinary Type	MR-LAS1 Pin Terminal Type	Switch Structure

Circuit Diagram

4 poles illuminated pushbutton:

Specification

Operating Temperature		-25℃~+55℃(no freezing)
Operating Humidity		Keep good ventilation round the switch. 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, 1min
	Between terminals of the same pole	1500V, AC 50Hz, 1min
	Between terminals of different poles	2000V, AC 50Hz, 1min
Vibration Resistance		50Hz, 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: 2×0.8mm max Area of copper wire: 0.75mm ²
Solder Heat Resistance		320℃ 3s
Operating Force		About 2N(1NO1NC)
Operating Travel		About 3mm

Installation Dimension

Type	A	B
Round	≥ 18mm	≥ 18mm
Square	≥ 18mm	≥ 18mm
Rectangular	≥ 18mm	≥ 24mm
Mushroom	≥ 24mm	≥ 24mm
Big Square	≥ 24mm	≥ 24mm
Big Rectangular	≥ 18mm	≥ 24mm

PART NUMBERS ON THIS DRAWING
MR-LAS1F-11 MR-LAS1F-11X MR-LAS1F-11Y MR-LAS1F-D MR-LAS1J-11 MR-LAS1J-11X MR-LAS1J-11Y
MR-LAS1J-D MR-LAS1M-11 MR-LAS1Y-11 MR-LAS1Y-11X MR-LAS1Y-11Y MR-LAS1Y-D

16 MM PUSH BUTTON		Micro-Ray	
MR-LAS1 SERIES			
PART NO	MR-LAS1		
DWG NO	MR-LAS1	SHEET 1 OF 4	REV A
UNITS: mm	SCALE: NTS - DO NOT SCALE	SIZE A4	DATE 2026-09-22

Φ16mm Product Outline	Specification	Dimension
Signal Light MR-LAS1Y-D/△/▲	LED Color△ R G Y B W LED Voltage▲ 6V / 12V / 24V / 110V / 220V Protection Degree IP40 Accessory Switch Guard S01 / Scutcheon Frame S19 / Sealing Cover S09-S1Y	
Signal Light MR-LAS1F-D/△/▲	LED Color△ R G Y B W LED Voltage▲ 6V / 12V / 24V / 110V / 220V Protection Degree IP40 Accessory Switch Guard S01 / Sealing Cover S09-S1F	
Signal Light LAS1J-D/△/▲	LED Color△ R G Y B W LED Voltage▲ 6V / 12V / 24V / 110V / 220V Protection Degree IP40 Accessory Switch Guard S02 / Sealing Cover S09-S1J	
Pushbutton(can be illuminated) LAS1Y-11■/JC/△/▲	Contact 1NO1NC 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 / Scutcheon Frame S19 / Sealing Cover S09-S1Y / Solder Terminal S21 / PCB Terminal S22	
Pushbutton(can be illuminated) LAS1F-11■/JC/△/▲	Contact 1NO1NC 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 / Solder Terminal S21 / PCB Terminal S22	
Pushbutton(can be illuminated) LAS1J-11■/JC/△/▲	Contact 1NO1NC 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 S02 / Sealing Cover S09-S1J / Solder Terminal S21 / PCB Terminal S22	

PART NUMBERS ON THIS DRAWING

MR-LAS1F-11 MR-LAS1F-11X MR-LAS1F-11Y MR-LAS1F-D MR-LAS1J-11 MR-LAS1J-11X MR-LAS1J-11Y
MR-LAS1J-D MR-LAS1M-11 MR-LAS1Y-11 MR-LAS1Y-11X MR-LAS1Y-11Y MR-LAS1Y-D

16 MM PUSH BUTTON

MR-LAS1 SERIES

Micro-Ray

PART NO

MR-LAS1

DWG NO

MR-LAS1

SHEET

2 OF 4

REV

A

UNITS: mm

SCALE: NTS - DO NOT SCALE

SIZE

A4

DATE

2026-09-22

Φ16mm Product Outline	Specification	Dimension
Selector Switch(can be illuminated) LAS1Y-11X/2/JC/△/▲	Contact 1NO1NC Operation Type 90° 2 Position Maintain Color△ R G N LED Voltage▲ 6V / 12V / 24V / 220V Protection Degree IP40 Accessory Scutcheon Frame S19 / Solder Terminal S21 / PCB Terminal S22	
Selector Switch(can be illuminated) MR-LAS1F-11X/2/JC/△/▲	Contact 1NO1NC Operation Type 90° 2 Position Maintain Color△ R G N LED Voltage▲ 6V / 12V / 24V / 220V Protection Degree IP40 Accessory Solder Terminal S21 / PCB Terminal S22	
Selector Switch(can be illuminated) MR-LAS1J-11X/2/JC/△/▲	Contact 1NO1NC Operation Type 90° 2 Position Maintain Color△ R G N LED Voltage▲ 6V / 12V / 24V / 220V Protection Degree IP40 Accessory Solder Terminal S21 / PCB Terminal S22	
Key-lock Switch LAS1Y-11Y/2/JC	Contact 1NO1NC Operation Type 90° 2 Position Maintain Protection Degree IP40 Accessory Scutcheon Frame S19 / Solder Terminal S21 / PCB Terminal S22	
Key-lock Switch MR-LAS1F-11Y/2/JC	Contact 1NO1NC Operation Type 90° 2 Position Maintain Protection Degree IP40 Accessory Solder Terminal S21 / PCB Terminal S22	
Key-lock Switch MR-LAS1J-11Y/2/JC	Contact 1NO1NC Operation Type 90° 2 Position Maintain Protection Degree IP40 Accessory Solder Terminal S21 / PCB Terminal S22	

PART NUMBERS ON THIS DRAWING
MR-LAS1F-11 MR-LAS1F-11X MR-LAS1F-11Y MR-LAS1F-D MR-LAS1J-11 MR-LAS1J-11X MR-LAS1J-11Y
MR-LAS1J-D MR-LAS1M-11 MR-LAS1Y-11 MR-LAS1Y-11X MR-LAS1Y-11Y MR-LAS1Y-D

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

Φ16mm Product Cutline	Specification	Dimension
Mushroom(can be illuminated) LAS1M-11■/□/△/▲	Contact1NO1NC Operation Type■No letter means momentary / Z: Latching Color△R G Y LED Voltage▲6V / 12V / 24V / 220V Protection DegreeIP40 AccessoryScutcheon Frame S19 / Solder Terminal S21 / PCB Terminal S22	Top view: 7.5, 10, 7.5 Side view: 6 Max., 14, 36.6 Front view: Φ23.5

PART NUMBERS ON THIS DRAWING
MR-LAS1F-11 MR-LAS1F-11X MR-LAS1F-11Y MR-LAS1F-D MR-LAS1J-11 MR-LAS1J-11X MR-LAS1J-11Y
MR-LAS1J-D MR-LAS1M-11 MR-LAS1Y-11 MR-LAS1Y-11X MR-LAS1Y-11Y MR-LAS1Y-D

16 MM PUSH BUTTON MR-LAS1 SERIES		Micro-Ray	
PART NO	MR-LAS1		
DWG NO	MR-LAS1	SHEET 4 OF 4	REV A
UNITS: mm	SCALE: NTS - DO NOT SCALE	SIZE A4	DATE 2026-09-22