

Characteristic

MR-LAS1-A series products have complete range, wide market application, some products have three types of head shape: round, square and rectangular (see details from content page) the structure is used by multi-series products of our company's products, is well received by users. The P(W) type pushbutton and signal light use veneering installation, the front frame is only 2mm higher over panel, is fashionable and goodlooking.

Specs Including pushbutton, signal light, emergency-stop switch, key-lock switch, selector switch and mushroom switch; mounting hole diameter is Φ16mm, Φ22mm, 21X21mm(square) and 21X27mm(rectangular).

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 "fast-motion". Each element contains 1NO+1NC contacts, each pushbutton could use 2 pcs elements at most.

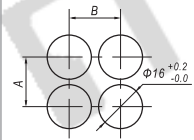
Protective Degree The standard is IP40, some can be customized for IP65.

Switch Ratings

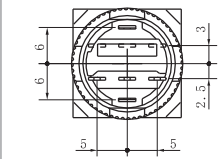
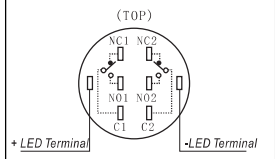
Rated Insulation Voltage U_i			250V			
Thermal Current I_{th}			5A Temperature rise can't over the Max. rating current			
Rated Voltage			12V	24V	110V	220V
Rated Current	AC 50/60Hz	Resistive Load	—	—	1A	0.5A
		Inductive Load	—	—	0.7A	0.5A
	DC	Resistive Load	1A	1A	0.2A	—
		Inductive Load	0.7A	0.7A	0.1A	—
Contact Material			Silver Alloy			

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

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

Bottom Preview and Terminal Arrangement

Bottom Preview	Terminal Arrangement
	

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	2000VAC, 50Hz, 1 min
	Between terminals of the same pole	1500VAC, 50Hz, 1 min
	Between terminals of different poles	2000VAC, 50Hz, 1 min
Mechanical Life	Vibration Resistance	50Hz, amplitude 1.2mm
	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
	Pin Terminal:	2.8×0.5mm
Solder Heat Resistance		320℃ 3s
Operating Travel		About 3mm
Operating Force		About 1.7N(1NO1NC) / About 3N(2NO2NC)

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-ADF MR-LAS1-ADJ MR-LAS1-AF MR-LAS1-AF-B MR-LAS1-AF-D MR-LAS1-AF-X
MR-LAS1-AF-Y MR-LAS1-AJ MR-LAS1-AJ-B MR-LAS1-AJ-D MR-LAS1-AJ-X MR-LAS1-AJ-Y MR-LAS1-AM
MR-LAS1-AY MR-LAS1-AY-B MR-LAS1-AY-D MR-LAS1-AY-DS MR-LAS1-AY-TS MR-LAS1-AY-TSB
MR-LAS1-AY-X MR-LAS1-AY-Y

16 MM PUSH BUTTON MR-LAS1-A SERIES		Micro-Ray	
PART NO	MR-LAS1-A		
DWG NO	MR-LAS1-A	SHEET 1 OF 7	REV A
UNITS: mm	SCALE: NTS - DO NOT SCALE	SIZE A4	DATE 2026-09-22

MR-LAS1-A Series Part Number Description

Button, signal lamp type description: MR-LAS1-A☆★□■○/△/▲/※

Symbol	Symbol Name	Specify
☆	Sort Code	P: standard frame (Φ22mm) / W: silvery frame(Φ22mm) / no letter means ordinary type
★	Head Shape	Y: round / F: square / J: rectangular / DF: big square(only ordinary type) / DJ: big rectangular(only ordinary type)
□	Contact	11:1NO1NC / 22:2NO2NC / no letter means signal light
■	Operation Type	DS: short-body signal light / D:signal light / Z: latching pushbutton / no letter means momentary pushbutton
○	Illumination	T: power symbol / no letter means ordinary type Note: T type is special product, only for round silvery frame; other symbol can be customized
△	Color	R: red / G: green / Y: yellow / B: blue / W: white/ N: black
▲	Voltage	6V / 12V / 24V / 220V / other voltage can be customized(AC/DC LED, internal resistor)
※	Protection Degree	No letter means IP40 / P:IP65

Type specification of knob and key knob: MR-LAS1-A☆★□■/◇◆●/△/▲/※

Symbol	Symbol Name	Specify
☆	Sort Code	P: standard frame (Φ22mm) / W: silvery frame(Φ22mm) / no letter means ordinary type
★	Head Shape	Y: round / F: square / J: rectangular
□	Contact	11:1NO1NC / 22:2NO2NC
■	Operation Type	X: selector switch / Y: key-lock switch
◇	Operation Position	2: two position / 3: three position
◆	Action Type	1:maintain / 3:return
●	Unmovable Position of Key	A:  B:  C:  D:  E:  G:  H: 
△	Color	R:red / G:green / Y:yellow / B:blue / W:white / N:black
▲	Voltage	6V / 12V / 24V / 220V / other voltage can be customized(AC/DC LED, internal resistor)
※	Protection Degree	No letter means IP40 / P: IP65

Type specification of emergency stop button: LAS1-A☆Y-□■/※

Symbol	Symbol Name	Specify
☆	Sort Code	P: standard frame (Φ22mm) / no letter means ordinary type
□	Contact	11:1NO1NC / 22:2NO2NC
■	Operation Type	TS:emergency-stop switch / TSB:type B emergency-stop switch
※	Protection Degree	No letter means IP40 / P:IP65

Note: Pls read product specification, then choose corresponding code from above tables according to different symbols.

PART NUMBERS ON THIS DRAWING

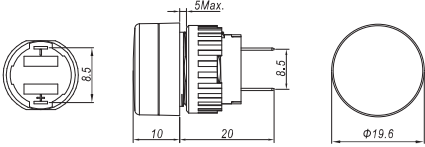
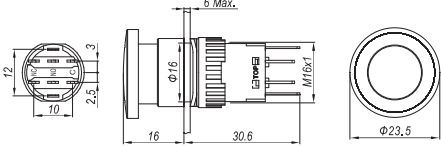
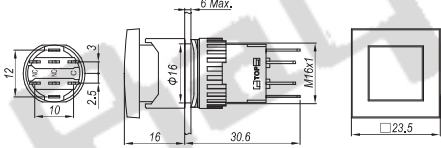
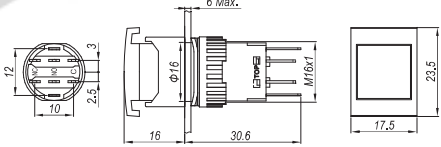
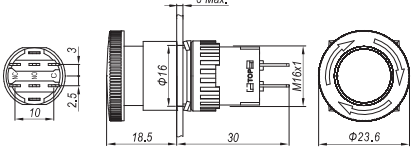
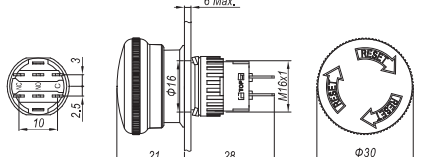
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MR-LAS1-AF-Y MR-LAS1-AJ MR-LAS1-AJ-B MR-LAS1-AJ-D MR-LAS1-AJ-X MR-LAS1-AJ-Y MR-LAS1-AM
MR-LAS1-AY MR-LAS1-AY-B MR-LAS1-AY-D MR-LAS1-AY-DS MR-LAS1-AY-TS MR-LAS1-AY-TSB
MR-LAS1-AY-X MR-LAS1-AY-Y

16 MM PUSH BUTTON		Micro-Ray	
MR-LAS1-A SERIES			
PART NO	MR-LAS1-A		
DWG NO	MR-LAS1-A	SHEET 2 OF 7	REV A
UNITS: mm	SCALE: NTS - DO NOT SCALE	SIZE A4	DATE 2026-09-22

Φ16mm Product Cutline	Specification	Dimension
Signal Light LAS1-AY-D/△/▲/※	LED Color△ R G Y B W LED Voltage▲ 6V / 12V / 24V / 110V / 220V Protection Degree※ No letter means IP40 / P:IP65 Accessory Switch Guard S01 / Scutcheon Frame S19 / Sealing Cover S09-S1Y / Solder Terminal S04 / PCB Terminal S05	
Signal Light LAS1-AF-D/△/▲/※	LED Color△ R G Y B W LED Voltage▲ 6V / 12V / 24V / 110V / 220V Protection Degree※ No letter means IP40 / P:IP65 Accessory Switch Guard S01 / Sealing Cover S09-S1F / Solder Terminal S04 / PCB Terminal S05	
Signal Light LAS1-AJ-D/△/▲/※	LED Color△ R G Y B W LED Voltage▲ 6V / 12V / 24V / 110V / 220V Protection Degree※ No letter means IP40 / P:IP65 Accessory Switch Guard S02 / Sealing Cover S09-S1J / Solder Terminal S04 / PCB Terminal S05	
Pushbutton(can be illuminated) MR-LAS1-AY-□ ■/△/▲/※	Contact□ 11: 1NO1NC / 22: 2NO2NC Operation Type No letter means momentary / Z: Latching Color△ R G Y B W N LED Voltage▲ 6V / 12V / 24V / 110V / 220V Protection Degree※ No letter means IP40 / P:IP65 Accessory Switch Guard S01 / Scutcheon Frame S19 / Sealing Cover S09-S1Y / Solder Terminal S04 / PCB Terminal S05	
Pushbutton(can be illuminated) MR-LAS1-AF-□ ■/△/▲/※	Contact□ 11: 1NO1NC / 22: 2NO2NC Operation Type No letter means momentary / Z: Latching Color△ R G Y B W N LED Voltage▲ 6V / 12V / 24V / 110V / 220V Protection Degree※ No letter means IP40 / P:IP65 Accessory Switch Guard S01 / Sealing Cover S09-S1F / Solder Terminal S04 / PCB Terminal S05	
Pushbutton(can be illuminated) MR-LAS1-AJ-□ ■/△/▲/※	Contact□ 11: 1NO1NC / 22: 2NO2NC Operation Type No letter means momentary / Z: Latching Color△ R G Y B W N LED Voltage▲ 6V / 12V / 24V / 110V / 220V Protection Degree※ No letter means IP40 / P:IP65 Accessory Switch Guard S02 / Sealing Cover S09-S1J / Solder Terminal S04 / PCB Terminal S05	

PART NUMBERS ON THIS DRAWING
MR-LAS1-ADF MR-LAS1-ADJ MR-LAS1-AF MR-LAS1-AF-B MR-LAS1-AF-D MR-LAS1-AF-X
MR-LAS1-AF-Y MR-LAS1-AJ MR-LAS1-AJ-B MR-LAS1-AJ-D MR-LAS1-AJ-X MR-LAS1-AJ-Y MR-LAS1-AM
MR-LAS1-AY MR-LAS1-AY-B MR-LAS1-AY-D MR-LAS1-AY-DS MR-LAS1-AY-TS MR-LAS1-AY-TSB
MR-LAS1-AY-X MR-LAS1-AY-Y

16 MM PUSH BUTTON MR-LAS1-A SERIES		Micro-Ray	
PART NO	MR-LAS1-A		
DWG NO	MR-LAS1-A	SHEET 3 OF 7	REV A
UNITS: mm	SCALE: NTS - DO NOT SCALE	SIZE A4	DATE 2026-09-22

Φ16mm Product Outline	Specification	Dimension
Signal Light LAS1-AY-DS/△/▲/※	LED Color△ RGBYBW LED Voltage▲ 6V / 12V / 24V / 110V / 220V Protection Degree※ No letter means IP40 / P:IP65 Accessory Switch Guard S01 / Scutcheon Frame S19 / Sealing Cover S09-S1Y	
Mushroom(can be illuminated) MR-LAS1-AM-□ ■/△/▲/※	Contact□ 11: 1NO1NC / 22: 2NO2NC Operation Type No letter means momentary / Z: Latching Color△ RGB LED Voltage▲ 6V / 12V / 24V / 110V / 220V Protection Degree※ No letter means IP40 / P:IP65 Accessory Solder Terminal S04 / PCB Terminal S05 / Switch Guard T34-16	
Big Square Pushbutton(can be illuminated) MR-LAS1-ADF-□ ■/△/▲/※	Contact□ 11: 1NO1NC / 22: 2NO2NC Operation Type No letter means momentary / Z: Latching Color△ RGBY LED Voltage▲ 6V / 12V / 24V / 110V / 220V Protection Degree※ No letter means IP40 / P:IP65 Accessory Solder Terminal S04 / PCB Terminal S05	
Big Rectangular Pushbutton(can be illuminated) MR-LAS1-ADJ-□ ■/△/▲/※	Contact□ 11: 1NO1NC / 22: 2NO2NC Operation Type No letter means momentary / Z: Latching Color△ RGBY LED Voltage▲ 6V / 12V / 24V / 110V / 220V Protection Degree※ No letter means IP40 / P:IP65 Accessory Solder Terminal S04 / PCB Terminal S05	
E-stop Switch MR-LAS1-AY-□ TSB/※	Contact□ 11: 1NO1NC / 22: 2NO2NC Protection Degree※ No letter means IP40 / P:IP65 Accessory Solder Terminal S04 / PCB Terminal S05 / Warning Ring S18	
E-stop Switch Type B MR-LAS1-AY-□ TSB/※	Contact□ 11: 1NO1NC / 22: 2NO2NC Protection Degree※ No letter means IP40 / P:IP65 Accessory Solder Terminal S04 / PCB Terminal S05 / Switch Guard T34-16	



PART NUMBERS ON THIS DRAWING
MR-LAS1-ADF MR-LAS1-ADJ MR-LAS1-AF MR-LAS1-AF-B MR-LAS1-AF-D MR-LAS1-AF-X
MR-LAS1-AF-Y MR-LAS1-AJ MR-LAS1-AJ-B MR-LAS1-AJ-D MR-LAS1-AJ-X MR-LAS1-AJ-Y MR-LAS1-AM
MR-LAS1-AY MR-LAS1-AY-B MR-LAS1-AY-D MR-LAS1-AY-DS MR-LAS1-AY-TS MR-LAS1-AY-TSB
MR-LAS1-AY-X MR-LAS1-AY-Y

16 MM PUSH BUTTON MR-LAS1-A SERIES		Micro-Ray	
PART NO	MR-LAS1-A		
DWG NO	MR-LAS1-A	SHEET 4 OF 7	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) LAS1-AY-□ X/◇◆/△/▲/※	Contact: 11: 1NO1NC / 22: 2NO2NC Operation Type◇◆ Color△ R G Y N LED Voltage▲ 6V / 12V / 24V / 110V / 220V Protection Degree※ No letter means IP40 / P:IP65(only for maintain type) Accessory Scoutcheon Frame S19 / Solder Terminal S04 / PCB Terminal S05	
Selector Switch(can be illuminated) LAS1-AF-□ X/◇◆/△/▲/※	Contact: 11: 1NO1NC / 22: 2NO2NC Operation Type◇◆ Color△ R G Y N LED Voltage▲ 6V / 12V / 24V / 110V / 220V Protection Degree※ No letter means IP40 / P:IP65(only for maintain type) Accessory Solder Terminal S04 / PCB Terminal S05	
Selector Switch(can be illuminated) MR-LAS1-AJ-□ X/◇◆/△/▲/※	Contact: 11: 1NO1NC / 22: 2NO2NC Operation Type◇◆ Color△ R G Y N LED Voltage▲ 6V / 12V / 24V / 110V / 220V Protection Degree※ No letter means IP40 / P:IP65(only for maintain type) Accessory Solder Terminal S04 / PCB Terminal S05	

Contact State of Selector and Key-lock Switch	Switch Type	90° 2 Position		45° 3 Position	
	Operation Position	1NO1NC	2NO2NC	2NO2NC	2NO2NC

PART NUMBERS ON THIS DRAWING
MR-LAS1-ADF MR-LAS1-ADJ MR-LAS1-AF MR-LAS1-AF-B MR-LAS1-AF-D MR-LAS1-AF-X
MR-LAS1-AF-Y MR-LAS1-AJ MR-LAS1-AJ-B MR-LAS1-AJ-D MR-LAS1-AJ-X MR-LAS1-AJ-Y MR-LAS1-AM
MR-LAS1-AY MR-LAS1-AY-B MR-LAS1-AY-D MR-LAS1-AY-DS MR-LAS1-AY-TS MR-LAS1-AY-TSB
MR-LAS1-AY-X MR-LAS1-AY-Y

16 MM PUSH BUTTON MR-LAS1-A SERIES		Micro-Ray	
PART NO	MR-LAS1-A		
DWG NO	MR-LAS1-A	SHEET 5 OF 7	REV A
UNITS: mm	SCALE: NTS - DO NOT SCALE	SIZE A4	DATE 2026-09-22

Φ16mm Product Outline	Specification	Dimension
Key-lock Switch MR-LAS1-AY-□ Y/◇◆●/※	Contact: 11: 1NO1NC / 22: 2NO2NC Operation Position◇◆ Unmovable Position of Key● Refer to Notes Protection Degree※ No letter means IP40 / P:IP65(only for maintain type) Accessory Scutcheon Frame S19 / Solder Terminal S04 / PCB Terminal S05	
Key-lock Switch MR-LAS1-AF-□ Y/◇◆●/※	Contact: 11: 1NO1NC / 22: 2NO2NC Operation Position◇◆ Unmovable Position of Key● Refer to Notes Protection Degree※ No letter means IP40 / P:IP65(only for maintain type) Accessory Solder Terminal S04 / PCB Terminal S05	
Key-lock Switch MR-LAS1-AJ-□ Y/◇◆●/※	Contact: 11: 1NO1NC / 22: 2NO2NC Operation Position◇◆ Refer to Notes Protection Degree※ No letter means IP40 / P:IP65(only for maintain type) Accessory Solder Terminal S04 / PCB Terminal S05	

Notes

- : Unmovable Position of Key
No letter means type A
 - ◇◆: Provide 2 keys, need rotate into position when using.
- A: B: C: D: E: G: H:

Contact State of Selector and Key-lock Switch	Switch Type	90° 2 Position		45° 3 Position	
		1NO1NC	2NO2NC	2NO2NC	
	Operation Position				

PART NUMBERS ON THIS DRAWING
MR-LAS1-ADF MR-LAS1-ADJ MR-LAS1-AF MR-LAS1-AF-B MR-LAS1-AF-D MR-LAS1-AF-X
MR-LAS1-AF-Y MR-LAS1-AJ MR-LAS1-AJ-B MR-LAS1-AJ-D MR-LAS1-AJ-X MR-LAS1-AJ-Y MR-LAS1-AM
MR-LAS1-AY MR-LAS1-AY-B MR-LAS1-AY-D MR-LAS1-AY-DS MR-LAS1-AY-TS MR-LAS1-AY-TSB
MR-LAS1-AY-X MR-LAS1-AY-Y

16 MM PUSH BUTTON MR-LAS1-A SERIES		Micro-Ray	
PART NO	MR-LAS1-A		
DWG NO	MR-LAS1-A	SHEET 6 OF 7	REV A
UNITS: mm	SCALE: NTS - DO NOT SCALE	SIZE A4	DATE 2026-09-22

$\Phi 16$ mm Product Outline	Specification	Dimension
Buzzer LAS1-AY-■/▲	Sound Type ■ B: Continuous Buzzer Voltage ▲ 6VDC / 12VDC / 24VDC / 220VAC	
Buzzer LAS1-AF-■/▲	Sound Type ■ B: Continuous Buzzer Voltage ▲ 6VDC / 12VDC / 24VDC / 220VAC	
Buzzer LAS1-AJ-■/▲	Sound Type ■ B: Continuous Buzzer Voltage ▲ 6VDC / 12VDC / 24VDC / 220VAC	

Specification

Operating Temperature	-25℃~+55℃(no freezing), Keep good ventilation round the switch.
Operating Humidity	45~85%RH(no condensation)
Dielectric insulation	1000V
Sound Period	Continuous
Sound Intensity	75dB(1m)(rated voltage)
Sound Frequency	2300±300Hz
Operating Voltage	6VDC;12VDC;24VDC;220VAC

PART NUMBERS ON THIS DRAWING

MR-LAS1-ADF MR-LAS1-ADJ MR-LAS1-AF MR-LAS1-AF-B MR-LAS1-AF-D MR-LAS1-AF-X
MR-LAS1-AF-Y MR-LAS1-AJ MR-LAS1-AJ-B MR-LAS1-AJ-D MR-LAS1-AJ-X MR-LAS1-AJ-Y MR-LAS1-AM
MR-LAS1-AY MR-LAS1-AY-B MR-LAS1-AY-D MR-LAS1-AY-DS MR-LAS1-AY-TS MR-LAS1-AY-TSB
MR-LAS1-AY-X MR-LAS1-AY-Y

16 MM PUSH BUTTON MR-LAS1-A SERIES			
PART NO	MR-LAS1-A		
DWG NO	MR-LAS1-A	SHEET 7 OF 7	REV A
UNITS: mm	SCALE: NTS - DO NOT SCALE	SIZE A4	DATE 2026-09-22