

# HLA • HLC • HLS

## Miniature Rocker Switches



RoHS Compliant

UL CSA

### ■ Features

Economical prices are achieved through out-and-out VA and silver-saving design. Contact stability and high reliability are ensured thanks to the adoption of the seesaw type sliding contact mechanism (patented) (see the figure below) and the switch are usable for a wide range of current capacity from 1 mA to 12 A. In addition, the self-extinguishing phenol resin (UL94V-0) is used for the housing material, thereby ensuring excellent insulation and surge resistance. All models (excluding HLS308A) are **UL** and **CSA** approved for high reliability.

● For the detailed specifications, see Common Specifications on page 632.

### ■ Part Numbering

**HLA**    **1**    **12**    **A**    **12**

Series code    Number of poles    Current    Switching function    Terminal style

Series code	Actuator shape
HLA	
HLC	
HLS	

Fig.	Number of poles
1	1 pole
2	2 poles
3	3 poles

Fig.	Current
08	8A
12	12A

Code		Switching function	
1 pole / 3 poles	2 poles		
<b>A</b>	<b>K</b>	OFF	— ON
<b>D</b>	<b>N</b>	ON	— ON

Fig.	Terminal styles
None	TAB.#187 (t=0.5)
<b>12</b>	Solder Terminal

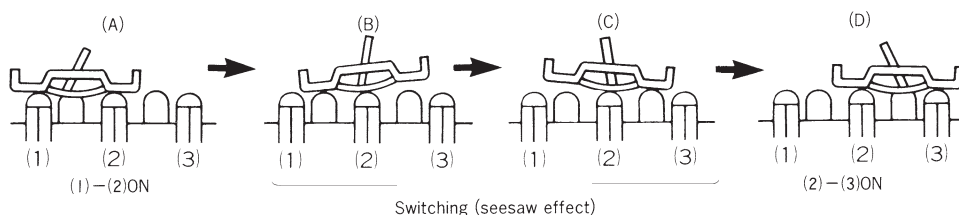
Note: For the overseas standards, see page 325.

### ■ Terminal Styles

1 pole		2 poles	
TAB #187 Style : —	Solder Terminal Style : 12	TAB #187 Style : —	Solder Terminal Style : 12

### ■ Seesaw Type Sliding Mechanism (Patented)

The movable contact moves from (A) to (B) as it wipes the contact surface and, at (B) and (C), the switching feel can be obtained due to the seesaw effect on the common terminal (2). Then, the movable contact moves from (C) to (D) as it wipes the contact surface and, at the point (D), the common terminal (2) and the terminal (3) are turned ON.

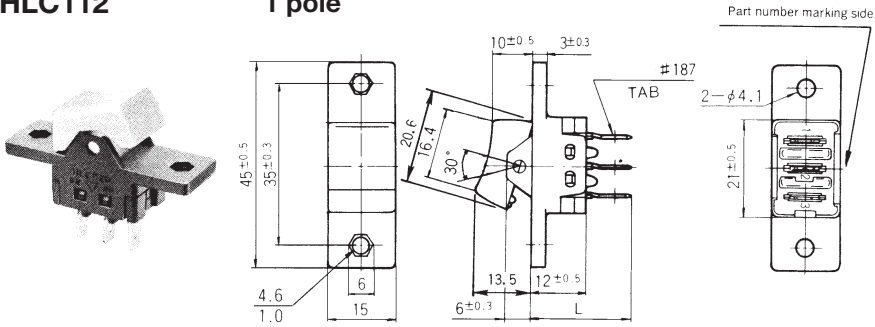




# HLC

## HLC112

### 1 pole



**TAB:#187 Terminal**

Terminal numbers are shown on the bottom of the switch.  
The switching function Type "A" is without terminal number (3).

### Specifications

Rating		Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
<b>HLC112A</b> <b>HLC112D</b>	AC125V 12A Max.	20mΩ Max. (DC2~4V 1A)	AC1500V 1 minute	100MΩ Min. (DC500V)	15,000 cycles
	AC250V 6A Max.				
	AC·DC6V 1mA Min.				

### Dimension L

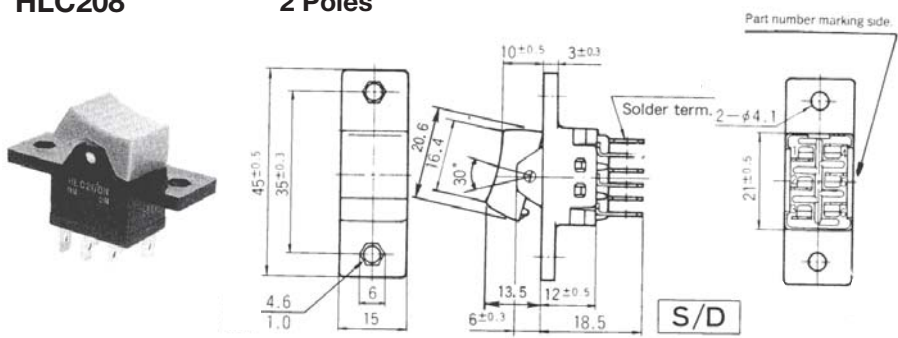
Part No.	Terminal style	TAB:#187	Solder Terminal
<b>HLC112A</b>	■	22	18.5
<b>HLC112D</b>	■	22	18.5

Part No.	Switching function	Viewed from part No. marking side	
<b>HLC112A</b>	■	OFF	ON
Connecting terminals		—	2-1
<b>HLC112D</b>	■	ON	ON
Connecting terminals		2-3	2-1
<b>HLC208K</b>	■	OFF	ON
Connecting terminals		—	2-1 5-4
<b>HLC208N</b>	■	ON	ON
Connecting terminals		2-3 5-6	2-1 5-4

To check the Part No. marked with the ■, refer to List of Part Numbers on Page 325.

## HLC208

### 2 Poles



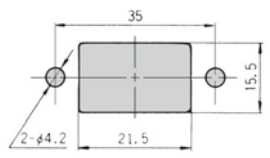
**Solder Terminal**

Terminal numbers are shown on the bottom of the switch.  
The switching function Type "K" is without terminal numbers (3) and (6).

### Specifications

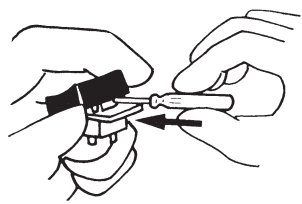
Rating		Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
<b>HLC208K</b> <b>HLC208N</b>	AC125V 8A Max.	20mΩ Max. (DC2~4V 1A)	AC1500V 1 minute	100MΩ Min. (DC500V)	15,000 cycles
	AC250V 5A Max.				
	AC·DC6V 1mA Min.				

### Panel Cut-Out Dimensions



### Mounting the HLC Type Button

The button can be replaced by pressing the button in the direction of the arrow.



### Placing an order

The button of the HLC type comes as an accessory. Choose one from the table on page 328 and specify the color in part number when placing an order.

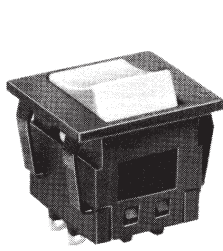


# HLS308

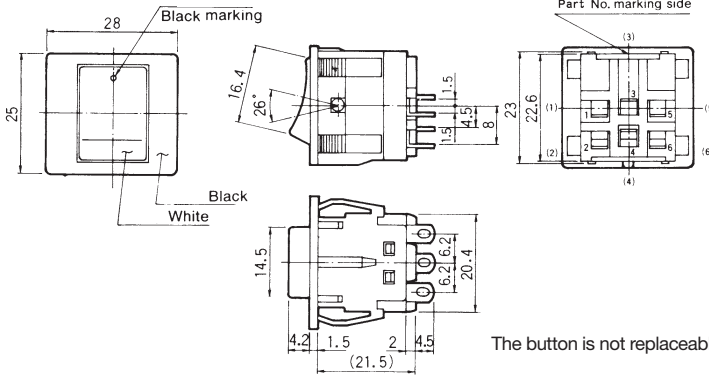
## HLS308

### 3-poles

Terminal numbers are shown on the bottom of the switch.



(Solder terminals)



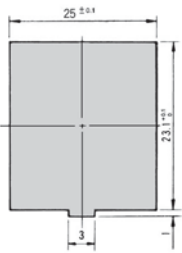
The button is not replaceable (Color: White).

Part No.	Marking	
<b>HLS308A12</b>	ON	OFF
Connecting terminals	1-2 3-4 5-6	—

## Specifications

Rating		Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life	Operating temperature range
Maximum rating	AC125V 8A AC250V 5A	100mΩ Max. (DC2~4V 1A)	AC2000V 1 minute	100MΩ Min. (DC500V)	5,000 cycles	-15~+85°C
Minimum rating	AC·DC6V 1mA					

## Panel Cut-Out Dimensions



Panel thickness : 1~2mm

## Soldering Specifications

Device : Soldering iron  
420°C, Max.; 3 seconds, Max.

## Accessories (For HLC·HLS : Without HLS308)

《Supplied separately》

Accessories	Standard accessories	Optional accessories					
Part name	Button	Button					
Dimensions		<p>Matte finish</p>					
Button color	Part number	Button color	Dot marking	Part number	Button color	Dot marking	Part number
White	<b>140000480738</b>	White	—	<b>140000480739</b>	White	Red	<b>140000480874</b>
Red	<b>140000480628</b>	Red	—	<b>140000480686</b>	White	Black	<b>140000481081</b>
Black	<b>140000480621</b>	Black	—	<b>140000480685</b>	Red	White	<b>140000480711</b>
Gray	<b>140000480629</b>	Gray	—	<b>140000480687</b>	Red	Black	<b>140000480896</b>
Green	<b>140000480631</b>	Green	—	<b>140000480689</b>	Black	White	<b>140000480710</b>
Blue	<b>140000480632</b>	Blue	—	<b>140000480688</b>	Black	Red	<b>140000480650</b>
Yellow	<b>140000480630</b>	Yellow	—	<b>140000480690</b>	Gray	White	<b>140000480741</b>
Brown	<b>140000480633</b>	Yellow	White	<b>140000481511</b>	Gray	Red	<b>140000480800</b>
—	—	Brown	—	<b>140000480691</b>	Gray	Black	<b>140000480865</b>

## A series

Poles	Part number	Switching function	UL (※1)
1 pole	ALE1D-2M4-10-Z	ON -OFF- ON	○
	ALE1D-5M4-10-Z		○
	ALE1E-2M4-10-Z	ON -OFF- ON	○
	ALE1E-5M4-10-Z		○
	ALE1F-2M4-10-Z	ON - (ON)	○
	ALE1F-5M4-10-Z		○
	ALE1G-2M4-10-Z	(ON) -OFF- (ON)	○
	ALE1G-5M4-10-Z		○
	ALE1H-2M4-10-Z	ON -OFF- (ON)	○
	ALE1H-5M4-10-Z		○
2 poles	ALE2D-2M4-10-Z	ON - ON	○
	ALE2D-5M4-10-Z		○
	ALE2N-2M4-10-Z	ON -OFF- ON	○
	ALE2E-2M4-10-Z		○
	ALE2E-5M4-10-Z	ON - (ON)	○
	ALE2P-2M4-10-Z		○
	ALE2F-2M4-10-Z	(ON) -OFF- (ON)	○
	ALE2F-5M4-10-Z		○
	ALE2R-2M4-10-Z	ON -OFF- (ON)	○
	ALE2G-2M4-10-Z		○
	ALE2G-5M4-10-Z	ON -OFF- (ON)	○
	ALE2S-2M4-10-Z		○
	ALE2H-2M4-10-Z	ON -OFF- (ON)	○
	ALE2H-5M4-10-Z		○
	ALE2T-2M4-10-Z		○

## Miniature Rocker Switches

Poles	Part number	Switching function	UL (※1)	CSA (※2)
1 pole	HLA112A	ON-OFF	○	○
	HLA112A12		○	○
	HLC112A		○	○
	HLC112A12		○	○
	HLS112A		○	○
	HLS112A12		○	○
	STE115A10-Z		○	○
	STE115A12-Z		○	○
	HLA208K		ON-OFF	○
HLA208K12	○	○		
HLC208K	○	○		
HLC208K12	○	○		
HLS208K	○	○		
HLS208K12	○	○		

## Miniature Poewr Switches

Poles	Type	Switching function	UL (※1)	CSA (※2)
1 pole	HLA112D	ON-ON	○	○
	HLA112D12		○	○
	HLC112D		○	○
	HLC112D12		○	○
	HLS112D		○	○
	HLS112D12		○	○
	STE115D10-Z		○	○

## Miniature Rocker Switches

Poles	Part number	Switching function	UL (※1)	CSA (※2)	VDE (※4)	SEMKO (※5)	Poles	Part number	Switching function	UL (※1)	CSA (※2)	VDE (※4)	SEMKO (※5)			
1-pole	SLE6A	ON-OFF	○	○	○	○	1-pole	SLE10A	ON-OFF	○	○	○	○			
	SLE6A-5		○	○	○	○		SLE10A-5		○	○	○	○			
	SLE6A-6		○	○	○	○		SLE10A-6		○	○	○	○			
	SLE6A-7		○	○	○	○		SLE10A-7		○	○	○	○			
	SLE6A-8		○	○	○	○		SLE10A-8		○	○	○	○			
	SLE6A2		○	○	○	○		SLE10A2		○	○	○	○			
	SLE6A2-5		○	○	○	○		SLE10A2-5		○	○	○	○			
	SLE6A2-6		○	○	○	○		SLE10A2-6		○	○	○	○			
	SLE6A2-7		○	○	○	○		SLE10A2-7		○	○	○	○			
	SLE6A2-8		○	○	○	○		SLE10A2-8		○	○	○	○			
	SLE6A4		○	○	○	○		SLE10A4		○	○	○	○			
	SLE6A4-5		○	○	○	○		SLE10A4-5		○	○	○	○			
	SLE6A4-6		○	○	○	○		SLE10A4-6		○	○	○	○			
	SLE6A4-7		○	○	○	○		SLE10A4-7		○	○	○	○			
	SLE6A4-8		○	○	○	○		SLE10A4-8		○	○	○	○			
	SLE6A5		○	○	○	○		SLE10A5		○	○	○	○			
	SLE6A5-5		○	○	○	○		SLE10A5-5		○	○	○	○			
	SLE6A5-6		○	○	○	○		SLE10A5-6		○	○	○	○			
	SLE6A5-7		○	○	○	○		SLE10A5-7		○	○	○	○			
	SLE6A5-8		○	○	○	○		SLE10A5-8		○	○	○	○			
	SLE6D		ON-ON	○	○	○		○		SLE10D	ON-ON	○	○	○	○	○
	SLE6D-5			○	○	○		○		SLE10D-5		○	○	○	○	
	SLE6D-6			○	○	○		○		SLE10D-6		○	○	○	○	
	SLE6D-7			○	○	○		○		SLE10D-7		○	○	○	○	
	SLE6D-8			○	○	○		○		SLE10D-8		○	○	○	○	
	SLE6D2			○	○	○		○		SLE10D2		○	○	○	○	
	SLE6D2-5			○	○	○		○		SLE10D2-5		○	○	○	○	
	SLE6D2-6			○	○	○		○		SLE10D2-6		○	○	○	○	
	SLE6D2-7			○	○	○		○		SLE10D2-7		○	○	○	○	
	SLE6D2-8			○	○	○		○		SLE10D2-8		○	○	○	○	
	SLE6D4			○	○	○		○		SLE10D4		○	○	○	○	
	SLE6D4-5			○	○	○		○		SLE10D4-5		○	○	○	○	
SLE6D4-6	○	○		○	○	SLE10D4-6	○	○	○	○						
SLE6D4-7	○	○		○	○	SLE10D4-7	○	○	○	○						
SLE6D4-8	○	○		○	○	SLE10D4-8	○	○	○	○						
SLE6D5	○	○		○	○	SLE10D5	○	○	○	○						
SLE6D5-5	○	○		○	○	SLE10D5-5	○	○	○	○						
SLE6D5-6	○	○		○	○	SLE10D5-6	○	○	○	○						
SLE6D5-7	○	○		○	○	SLE10D5-7	○	○	○	○						
SLE6D5-8	○	○		○	○	SLE10D5-8	○	○	○	○						

(※1) UL File No. E43275

(※4) VDE File No. 120752

(※2) CSA File No. LR38341

(※5) SEMKO File No. 614385