

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

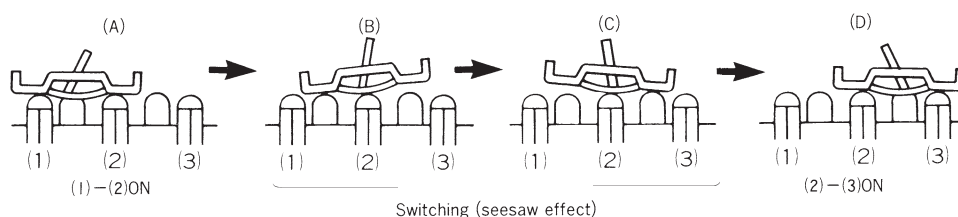
Code	Switching function
A K	OFF — ON
D N	ON — ON

Fig.	Terminal styles
None	TAB.#187 (t=0.5)
12	Solder Terminal

Note: For the overseas standards, see page 325.

■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.

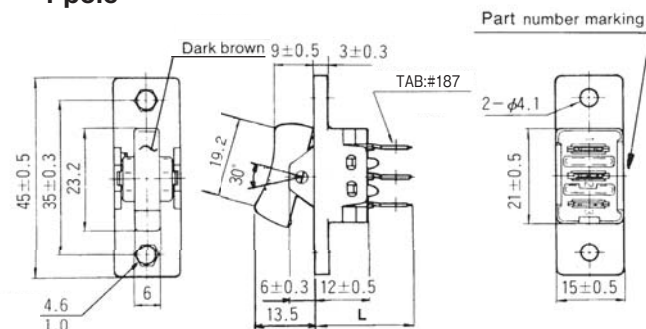


■Terminal Styles

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

HLA112

1 pole



TAB:#187 Terminal

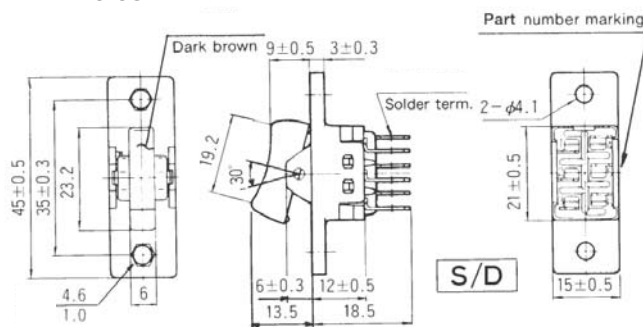
Terminal numbers are shown on the bottom of the switch.
The switching function Type "A" is without terminal number (3).

■ Specifications

Rating		Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
HLA112A HLA112D	AC125V 12A Max. AC250V 6A Max.	20mΩ Max. (DC2~4V 1A)	AC1500V 1 minute	100MΩ Min. (DC500V)	15,000 cycles
	AC·DC6V 1mA Min.				

HLA208

2 Poles



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

■ Specifications

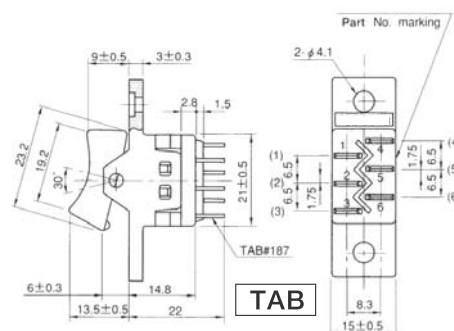
Rating		Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
HLA208K HLA208N	AC125V 8A Max. AC250V 5A Max.	20mΩ Max. (DC2~4V 1A)	AC1500V 1 minute	100MΩ Min. (DC500V)	15,000 cycles
	AC-DC6V 1mA Min.				

■ Dimension L

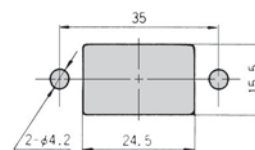
Part No. / Terminal style	TAB:#187	Solder Terminal
HLA112A	22	18.5
HLA112D	22	18.5

Switching function Part No.	Viewed from part No. marking side	
HLA112A ■	OFF	ON
Connecting terminals	—	2—1
HLA112D ■	ON	ON
Connecting terminals	2—3	2—1
HLA208K ■	OFF	ON
Connecting terminals	—	2—1 5—4
HLA208N ■	ON	ON
Connecting terminals	2—3 5—6	2—1 5—4

To check the Part No. marked with the , refer to the List of Part Numbers shown below.



■ Panel Cut-Out Dimension



■ Table of Part Numbers

Series	Switching function	TAB terminals (#187)		Solder terminals		
		1—pole	2—pole	1—pole	2—pole	3—pole
HLA	OFF — ON	★☞HHLA112A	★☞HHLA208K	★☞HHLA112A12	☞HHLA208K12	———
	ON — ON	★☞HHLA112D	★☞HHLA208N	★☞HHLA112D12	★☞HHLA208N12	———
HLC	OFF — ON	☞HHLA112A	☞HHLA208K	★☞HHLA112A12	☆☞HHLA208K12	———
	ON — ON	★☞HHLA112D	★☞HHLA208N	★☞HHLA112D12	★☞HHLA208N12	———
HLS	OFF — ON	☞HHLA112A	☞HHLA208K	☆☞HHLA112A12	☞HHLA208K12	HHLA308A12
	ON — ON	☞HHLA112D	☞HHLA208N	★☞HHLA112D12	☆☞HHLA208N12	———

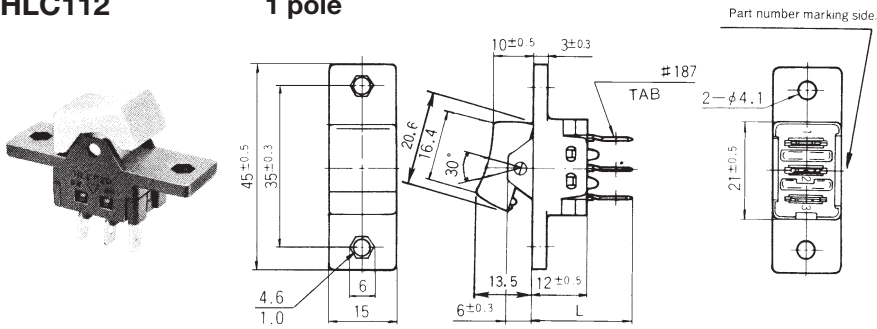
■ Placing an order

The button color of the **HLA** type is brown only. Replacement of button is not possible.

Some products in the List of UL- and CSA-approved Products are not registered yet. Before placing the order, check with our Sales Department.

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
HLC112A HLC112D	AC125V 12A Max.	20mΩ Max. (DC2~4V 1A)	AC1500V 1 minute	100MΩ Min. (DC500V)	15,000 cycles
	AC250V 6A Max.				
	AC-DC6V 1mA Min.				

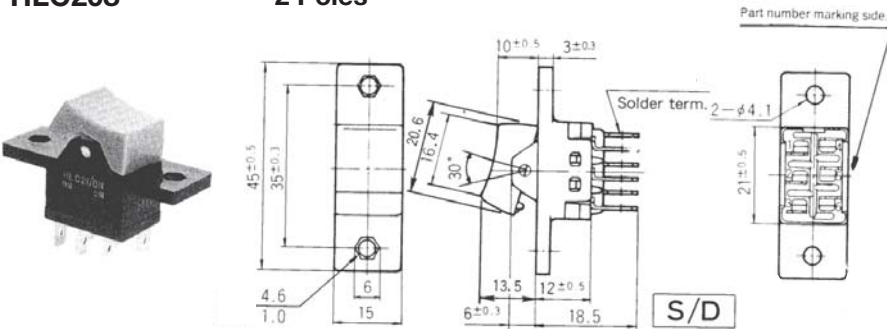
Dimension L

Part No.	Terminal style	TAB:#187	Solder Terminal
HLC112A		22	18.5
HLC112D		22	18.5

Part No.	Switching function	Viewed from part No. marking side	
HLC112A		OFF	ON
Connecting terminals		—	2—1
HLC112D		ON	ON
Connecting terminals		2—3	2—1
HLC208K		OFF	ON
Connecting terminals		—	2—1 5—4
HLC208N		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



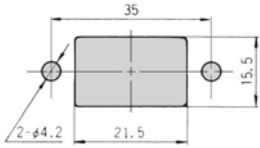
Solder Terminal

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

Specifications

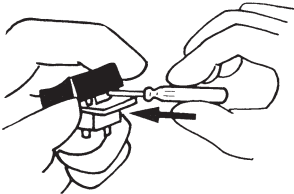
Rating		Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
HLC208K HLC208N	AC125V 8A Max.	20mΩ Max. (DC2~4V 1A)	AC1500V 1 minute	100MΩ Min. (DC500V)	15,000 cycles
	AC250V 5A Max.				
	AC-DC6V 1mA Min.				

Panel Cut-Out Dimensions



Mounting the HLC Type Button

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

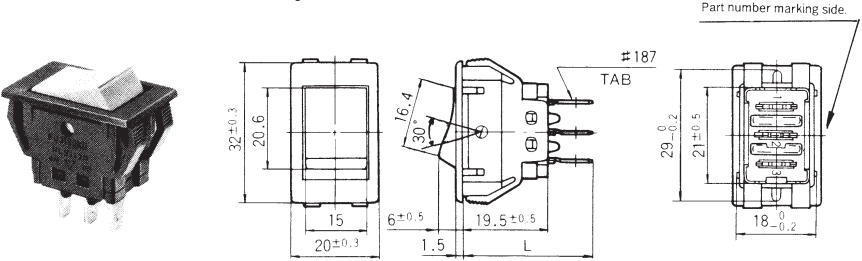


Placing an order

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.

HLS

HLS112 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
HLS112A HLS112D	AC125V 12A Max. AC250V 6A Max.	20mΩ Max. (DC2~4V 1A)	AC1500V 1 minute	100MΩ Min. (DC500V)	15,000 cycles
	AC-DC6V 1mA Min.				

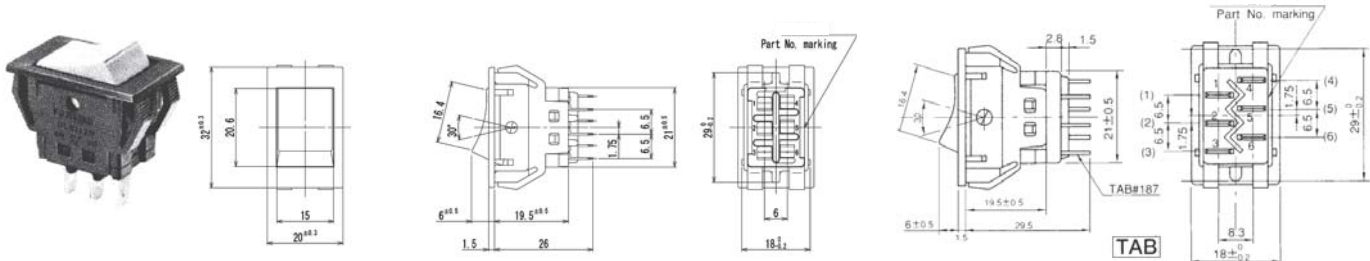
Dimension L

Terminal style	TAB:#187	Solder Terminal
Part No.		
HLS112A	29.5	26
HLS112D	29.5	26

Switching function	Viewed from part No. marking side	
Part No.		
HLS112A	OFF	ON
Connecting terminals	—	2—1
HLS112D	ON	ON
Connecting terminals	2—3	2—1
HLS208K	OFF	ON
Connecting terminals	—	2—1 5—4
HLS208N	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.

HLS208 2 poles



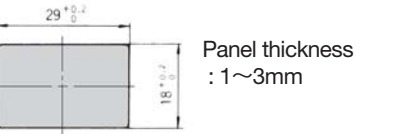
Solder Terminal

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

Specifications

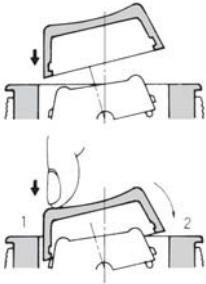
Rating		Initial contact resistance	Dielectric strength	Insulation resistance	Electrical life
HLS208K HLS208N	AC125V 8A Max. AC250V 5A Max.	20mΩ Max. (DC2~4V 1A)	AC1500V 1 minute	100MΩ Min. (DC500V)	15,000 cycles
	AC-DC6V 1mA Min.				

Panel Cut-Out Dimension



Mounting the HLC Type Button

To mount the button, insert the lower-rocker side first, and press in the other side while pressing the button with the ball of a finger. The button is not replaceable once it is mounted.



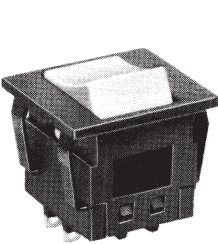
Placing an order

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

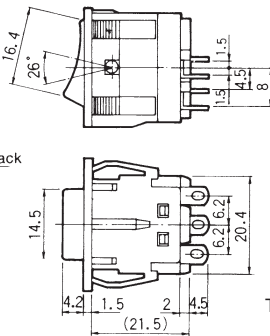
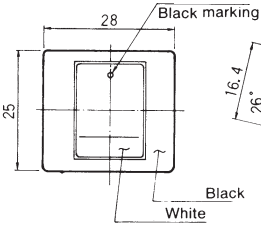
HLS308

HLS308

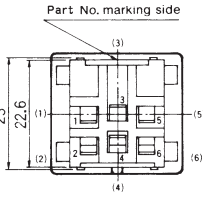
3—poles



(Solder terminals)



Terminal numbers are shown on the bottom of the switch.



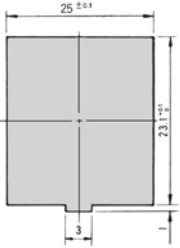
The button is not replaceable (Color: White).

Part No.	Marking	
HLS308A12	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℃
Minimum rating	AC·DC6V 1mA					

Panel Cut-Out Dimensions



Panel thickness : 1~2mm

Soldering Specifications

Device : Soldering iron
420℃, Max.; 3 seconds, Max.

Accessories (For HLC·HLS : Without HLS308)

《Supplied separately》

Accessories	Standard accessories	Optional accessories					
Part name	Button	Button					
Dimensions		 Dot marking with φ2.5 concave					
Button color	Part number	Button color	Dot marking	Part number	Button color	Dot marking	Part number
White	140000480738	White	—	140000480739	White	Red	140000480874
Red	140000480628	Red	—	140000480686	White	Black	140000481081
Black	140000480621	Black	—	140000480685	Red	White	140000480711
Gray	140000480629	Gray	—	140000480687	Red	Black	140000480896
Green	140000480631	Green	—	140000480689	Black	White	140000480710
Blue	140000480632	Blue	—	140000480688	Black	Red	140000480650
Yellow	140000480630	Yellow	—	140000480690	Gray	White	140000480741
Brown	140000480633	Yellow	White	140000481511	Gray	Red	140000480800
—	—	Brown	—	140000480691	Gray	Black	140000480865

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		○
	ALE2E-2M4-10-Z	ON -OFF- ON	○
	ALE2E-5M4-10-Z		○
	ALE2P-2M4-10-Z		○
	ALE2F-2M4-10-Z	ON - (ON)	○
	ALE2F-5M4-10-Z		○
	ALE2R-2M4-10-Z		○
	ALE2G-2M4-10-Z	(ON) -OFF- (ON)	○
	ALE2G-5M4-10-Z		○
	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		○	○
2 poles	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

(※2) CSA File No. LR38341

(※4) VDE File No. 120752

(※5) SEMKO File No. 614385