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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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# S series

Washable miniature toggle switches •  
plain bushing



## DISTINCTIVE FEATURES

- Process sealed
- Front and rear sealing
- Process compatible
- Wave solderable
- Washable



## ENVIRONMENTAL SPECIFICATIONS

- Operating temperature : -20 °C to +85 °C (-4 °F to +185 °F)
- Storage temperature : -40 °C to +85 °C (-40 °F to +185 °F)
- Moisture : The insulating materials employed and the complete seal permit the switches to withstand a 56 days moisture test (IEC 68-2-3).
- Solderability : The switches are tested at 235 °C ( 455 °F) according to IEC 68-2-20 after accelerated aging.



## ELECTRICAL SPECIFICATIONS

- Max. current/voltage rating with resistive load :
  - silver contacts (A) : 4 A 30 VDC
  - gold plated brass contacts (CD) : 0.4 VA 20 VAC or DC
  - gold plated silver contacts (AD) : 4 A 30 VDC (300 mA 30 VDC for gold plating)
- Initial contact resistance : 10 mΩ max.
- Insulation resistance : 1,000 MΩ min.
- Dielectric strength : 1,000 Vrms 50 Hz min.
- Electrical life at full load :

Contacts	Number of cycles	
	2 positions	3 positions
A	40,000	40,000
CD	100,000	50,000
AD	40,000	40,000

The company reserves the right to change specifications without notice.



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## GENERAL SPECIFICATIONS

- Mechanical strength : Terminals are strengthened by a bracket or a ground plate ensuring the rigidity of the switch on the board. Actuator strength is 10 N max.
- Soldering - thermal shock : The switches are especially designed for flow soldering at 260 °C (500 °F) during 5 seconds owing to high temperature polymer parts.



## MATERIALS

- Case and cover : UL94-VO, polyamide, glass filled or PES
- Actuator : brass, nickel plated
- Contacts  
 CD : brass, gold plated  
 A : silver  
 AD : silver, gold plated
- Terminal seal : epoxy

## AGENCY APPROVALS



2 A 250 VAC  
4 A 125 VAC



CECC 96201-006

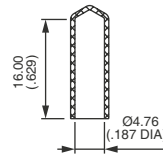


## ELECTRICAL FUNCTIONS



## CAP FOR PCB PROCESSING

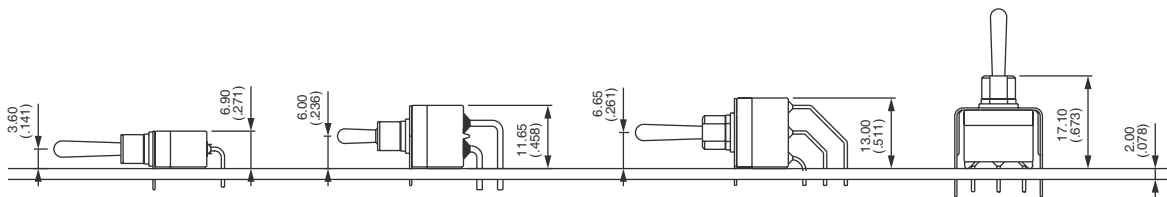
- Provide additional protection during PCB processing.
- Supplied mounted on the switch or separately.
- Material : vinyl



U3012



## PCB MOUNTING

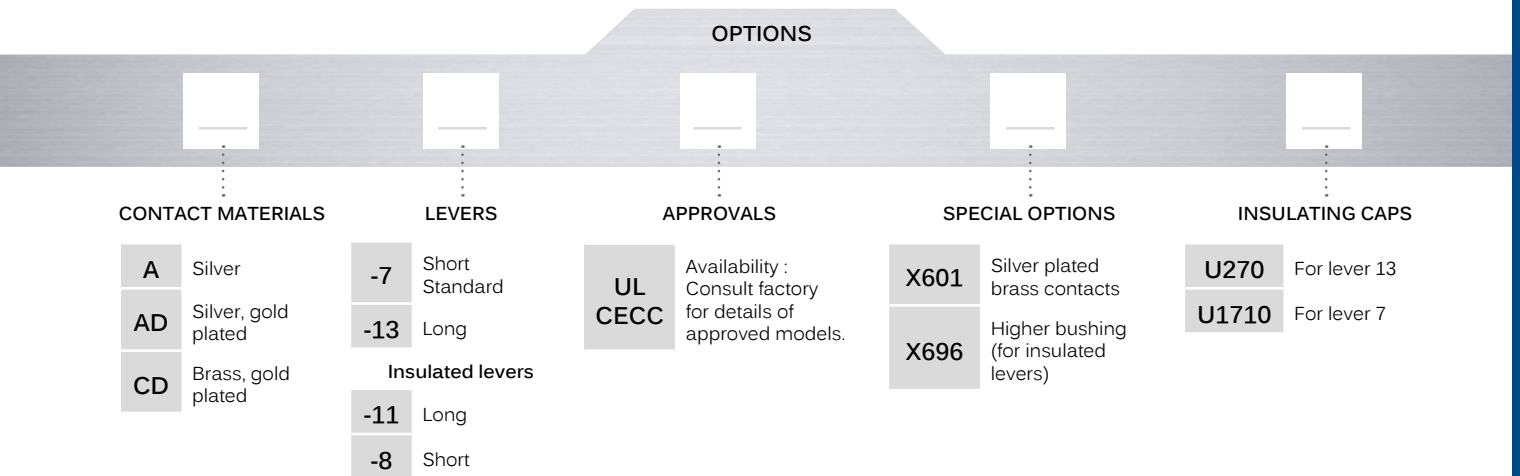
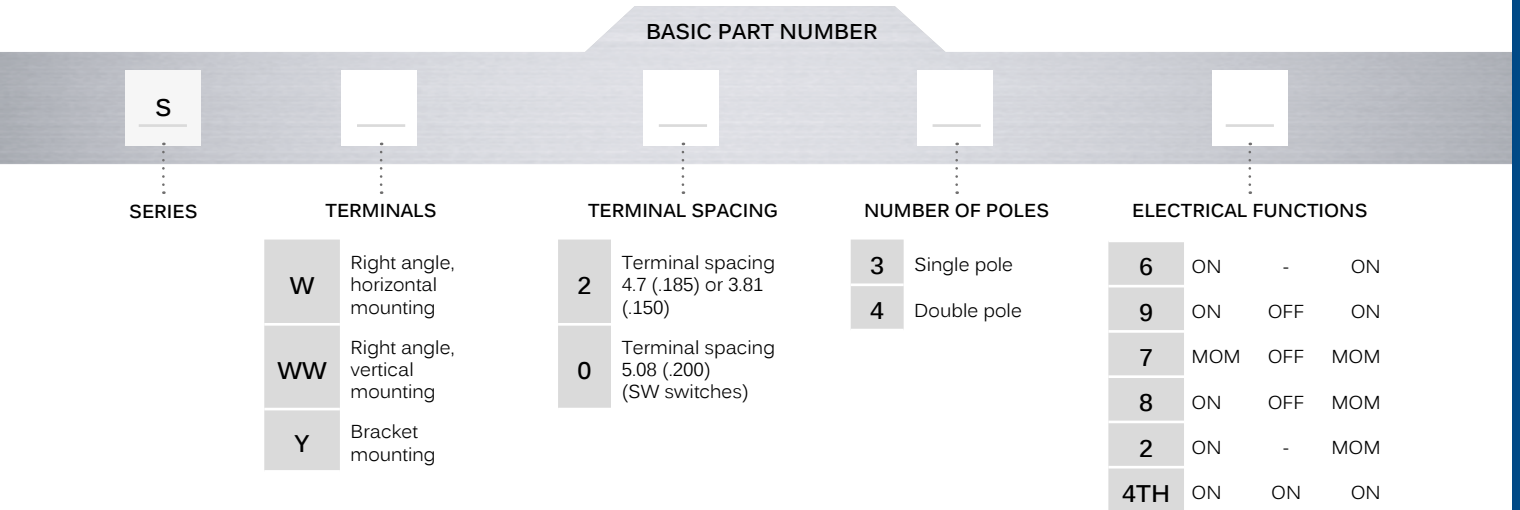


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## BUILD YOUR PART NUMBER



## ABOUT THIS SERIES

On the following pages, you will find successively basic part numbers of switches and options in the same order as in above chart.

**Notice** : please note that not all combinations of above numbers are available. Refer to the following pages for further information.

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## RIGHT ANGLE TERMINALS - HORIZONTAL SPACING 4.7 (.185)



	Single pole	Double pole	III 2-3 5-6	II	I 2-1 4-5
	SW236	SW246	ON	-	ON
	SW239	SW249	ON	OFF	ON
	SW237	SW247	MOM	OFF	MOM
	SW238	SW248	ON	OFF	MOM
	SW232	SW242	ON	-	MOM
		SW244TH*	ON	ON	ON

## RIGHT ANGLE TERMINALS - VERTICAL



	Single pole	Double pole	I 2-3 5-6	II	III 2-1 4-5
	SWW236	SWW246	ON	-	ON
	SWW239	SWW249	ON	OFF	ON
	SWW237	SWW247	MOM	OFF	MOM
	SWW238	SWW248**	ON	OFF	MOM
	SWW232	SWW242**	ON	-	MOM
		SWW244TH*	ON	ON	ON

## BRACKET MOUNTING



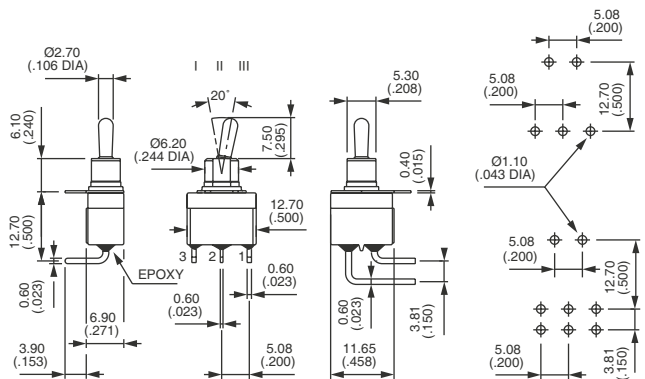
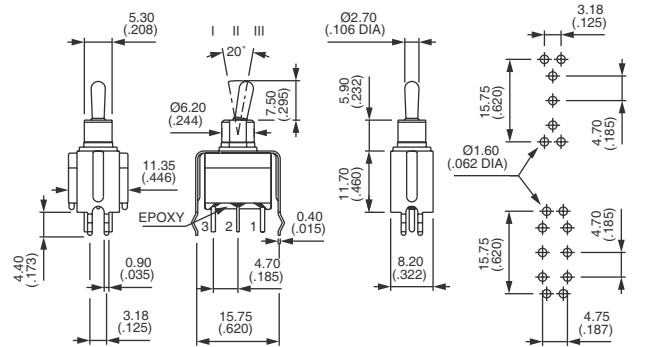
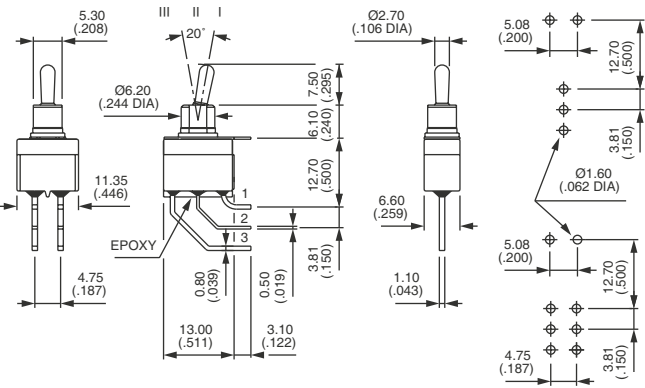
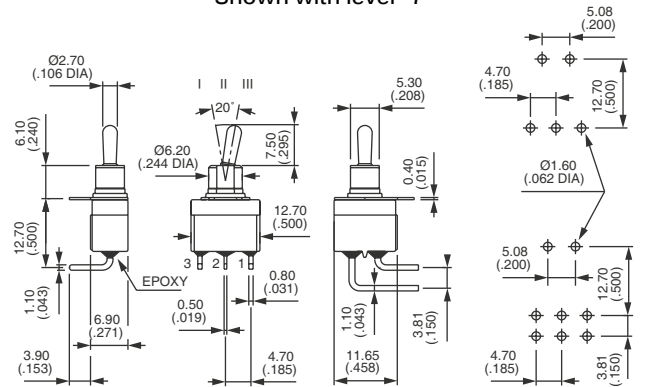
	Single pole	Double pole	I 2-3 5-6	II	III 2-1 4-5
	SY236	SY246	ON	-	ON
	SY239	SY249	ON	OFF	ON
	SY237	SY247	MOM	OFF	MOM
	SY238	SY248	ON	OFF	MOM
	SY232	SY242	ON	-	MOM
		SY244TH*	ON	ON	ON

## RIGHT ANGLE TERMINALS - HORIZONTAL SPACING 5.08 (.200)



	Single pole	Double pole	I 2-3 5-6	II	III 2-1 4-5
	SW036	SW046	ON	-	ON
	SW039	SW049	ON	OFF	ON
	SW037	SW047	MOM	OFF	MOM
	SW038	SW048	ON	OFF	MOM
	SW032	SW042	ON	-	MOM
		SW044TH*	ON	ON	ON

Shown with lever - 7

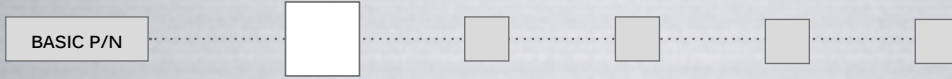


\* Function 4 : SP in DP case - TH connection, see "Technical information" on website.  
 \*\* Functions 2 and 8 : reversed connection available. On request.

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## CONTACT MATERIALS

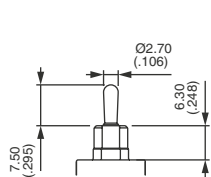


- A Silver
- AD Silver, gold plated
- AC Brass, gold plated

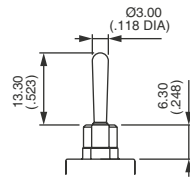
## LEVERS



### METAL LEVERS

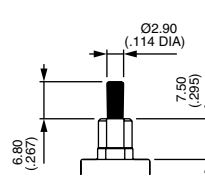


**-7**  
Standard

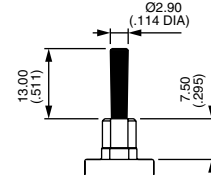


**-13**  
Long

### INSULATED LEVERS



**-8**  
Short



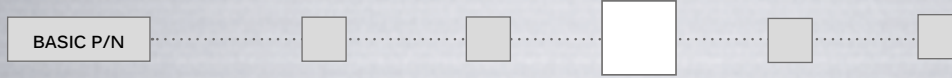
**-11**  
Long

If actuator not specified, we supply former default option -13.

Protected against electrostatic discharges (ESD) up to 12 KV. Black color.

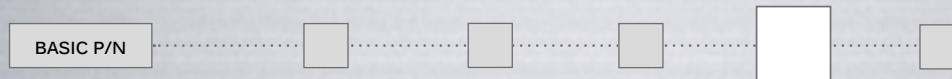
⚠ To combine with option X696.

## SPECIAL OPTIONS



- X601** Silver plated brass contacts  
Lower rating - Minimum quantity : 5,000 pieces per model and shipment.
- X696** Higher bushing 7.50 (.295). Compulsory for insulated levers 11 and 8.

## AGENCY APPROVALS



- UL
- CECC
- Blank No agency approval required.

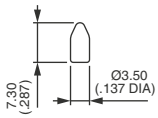
**Availability** : consult factory for details of approved models.

**Marking** : to order switches marked UL or CECC, please complete above box with desired approvals.

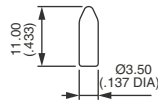
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INSULATING CAPS



**U1710**  
For lever 7



**U270**  
For lever 13

For cap colors, replace "0" with number :

- 1 Blue
- 1/4 Dark blue
- 2 Black
- 3 Green
- 4 Grey
- 5 Yellow
- 6 Red
- 7/1 White
- 9 Orange