

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



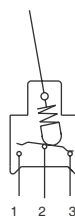
2 A 250 VAC
4 A 125 VAC



CECC 96201-006

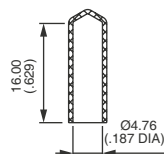


ELECTRICAL FUNCTIONS



CAP FOR PCB PROCESSING

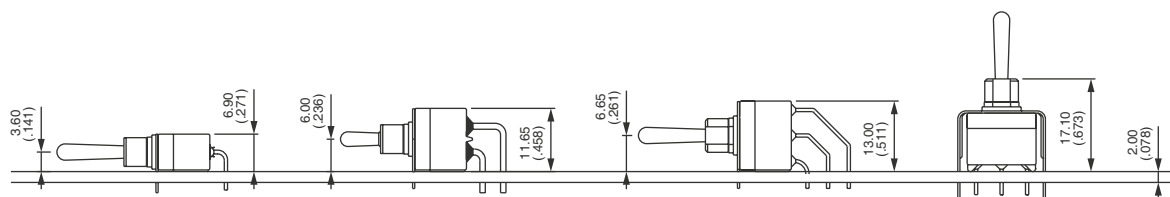
- Provide additional protection during PCB processing.
- Supplied mounted on the switch or separately.
- Material : vinyl



U3012



PCB MOUNTING



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BUILD YOUR PART NUMBER

BASIC PART NUMBER				
SERIES	TERMINALS	TERMINAL SPACING	NUMBER OF POLES	ELECTRICAL FUNCTIONS
S	W Right angle, horizontal mounting WW Right angle, vertical mounting Y Bracket mounting	2 Terminal spacing 4.7 (.185) or 3.81 (.150) 0 Terminal spacing 5.08 (.200) (SW switches)	3 Single pole 4 Double pole	6 ON - ON 9 ON OFF ON 7 MOM OFF MOM 8 ON OFF MOM 2 ON - MOM 4TH ON ON ON
OPTIONS				
CONTACT MATERIALS	LEVERS	APPROVALS	SPECIAL OPTIONS	INSULATING CAPS
A Silver AD Silver, gold plated CD Brass, gold plated	-7 Short Standard -13 Long Insulated levers -11 Long -8 Short	UL CECC Availability : Consult factory for details of approved models.	X601 Silver plated brass contacts X696 Higher bushing (for insulated levers)	U270 For lever 13 U1710 For lever 7



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)



		III 2-3 5-6	II	I 2-1 4-5
Single pole	Double pole			
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



		I 2-3 5-6	II	III 2-1 4-5
Single pole	Double pole			
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



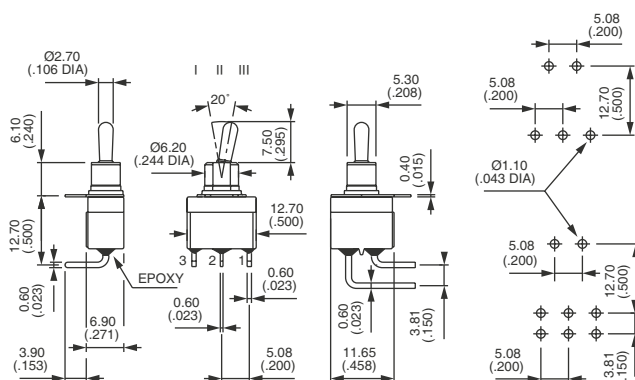
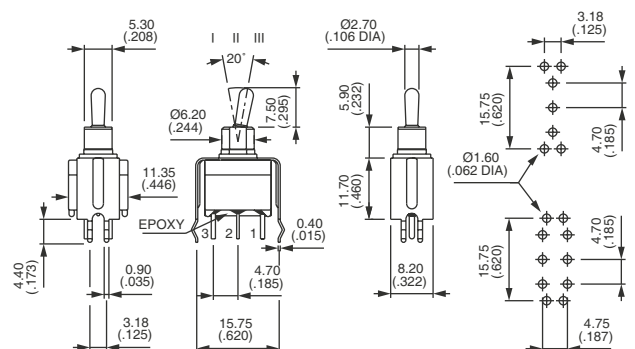
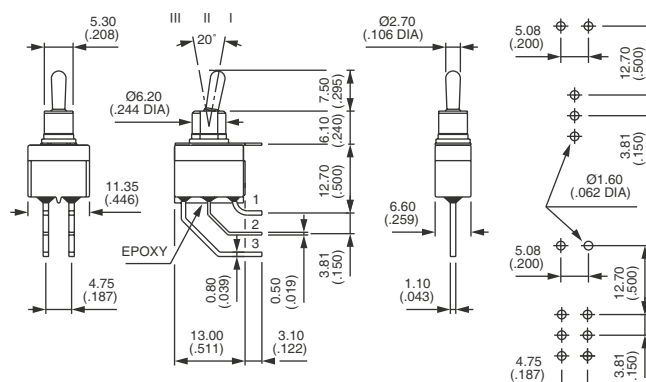
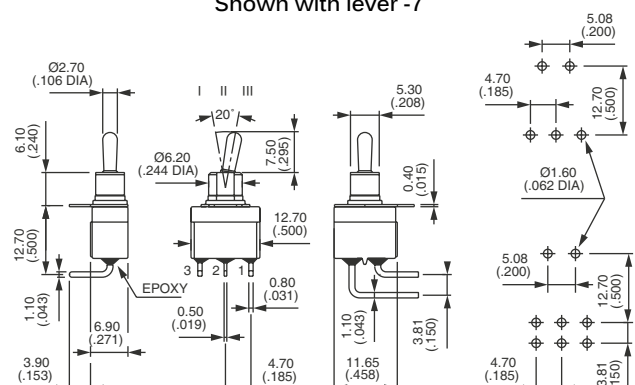
		I 2-3 5-6	II	III 2-1 4-5
Single pole	Double pole			
SY236	SY246	ON	-	ON
SY239	SY249	ON	OFF	ON
SY237	SY247	MOM	OFF	MOM
SY238	SY248	ON	OFF	MOM
SY232	SY242	ON	-	MOM
	SY244TH*	ON	ON	ON

RIGHT ANGLE TERMINALS - HORIZONTAL SPACING 5.08 (.200)



		I 2-3 5-6	II	III 2-1 4-5
Single pole	Double pole			
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

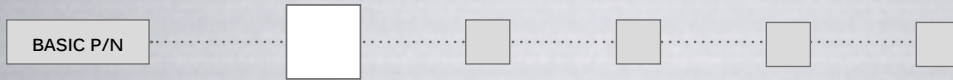


* Function 4 : SP in DP case - TH connection, see "Technical information" on website.
** Functions 2 and 8 : reversed connection available. On request.

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CONTACT MATERIALS

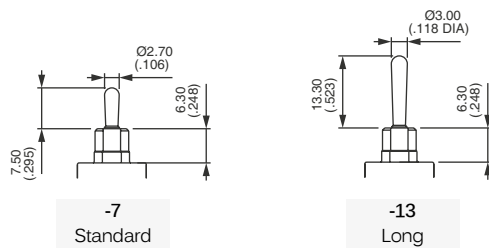


A	Silver
AD	Silver, gold plated
AC	Brass, gold plated

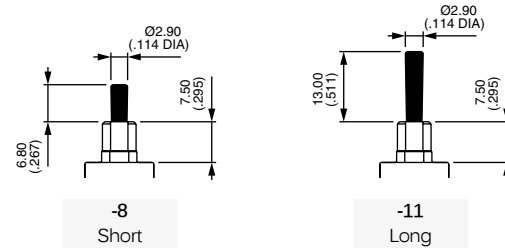
LEVERS



METAL LEVERS



INSULATED LEVERS

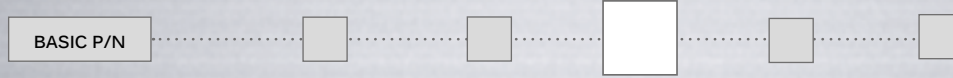


If actuator not specified, we supply former default option -13.

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

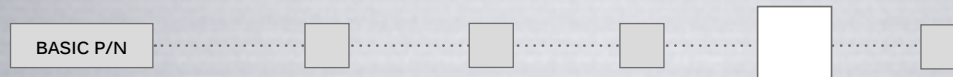
⚠ To combine with option X696.

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



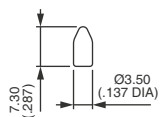
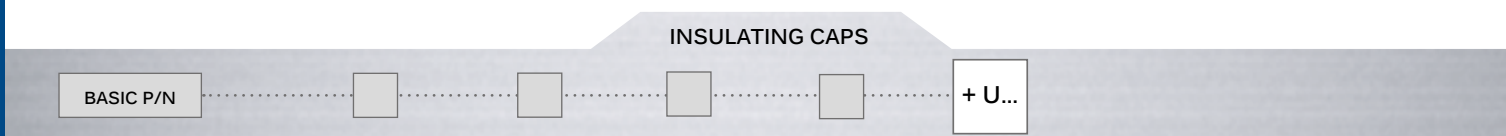
- UL**
- CECC**
- Blank** No agency approval required.

Availability : consult factory for details of approved models.

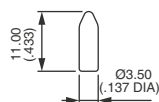
Marking : to order switches marked UL or CECC, please complete above box with desired approvals.

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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 |

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Apem:

[SW232AD13UL](#) [SW236A13](#) [SW236AD7](#) [SW237CD13](#) [SW239A7](#) [SW246A7](#) [SWW232A7](#) [SWW236A13](#)
[SWW236A7](#) [SWW236AD7UL](#) [SWW239A7](#) [SWW246A7](#) [SY236A13](#) [SY246A13](#) [SW232CD7](#) [SW236A7](#)
[SW236AD8X696UL](#) [SW236CD7](#) [SW237CD8X696](#) [SW239CD7](#) [SW246CD7](#) [SW248CD7](#) [SWW236CD7](#)
[SWW237CD7](#) [SWW238CD7](#) [SWW239CD7](#) [SWW246CD7](#) [SWW249CD7](#) [SY232CD7](#) [SY236CD7](#) [SY237CD7](#)
[SY239CD7](#) [SY244THCD7](#) [SY246CD7](#) [SY247CD7](#) [SY239A7X403UL](#) [SWW237A11X696](#) [SY236CD13](#)