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

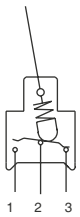
- Case and cover : UL94-VO, polyamide, glass filled or PES
- Actuator : brass, nickel plated
- Contacts
  CD : brass, gold plated
  A : silver
  AD : silver, gold plated
- Terminal seal : epoxy

AGENCY APPROVALS

2 A 250 VAC
4 A 125 VAC

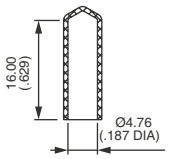
CECC 96201-006

ELECTRICAL FUNCTIONS



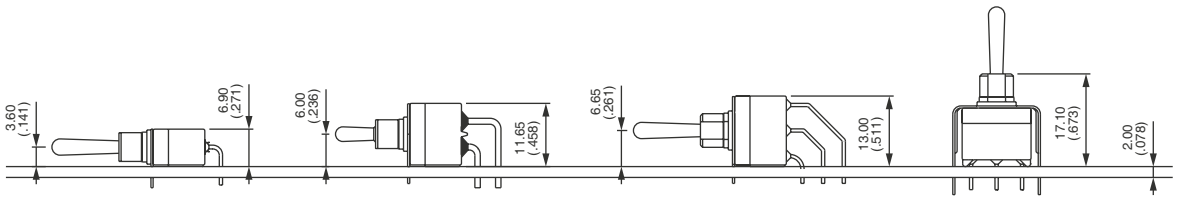
CAP FOR PCB PROCESSING

- 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

S				
SERIES	TERMINALS	TERMINAL SPACING	NUMBER OF POLES	ELECTRICAL FUNCTIONS

TERMINALS

W	Right angle, horizontal mounting
WW	Right angle, vertical mounting
Y	Bracket mounting

TERMINAL SPACING

2	Terminal spacing 4.7 (.185) or 3.81 (.150)
0	Terminal spacing 5.08 (.200) (SW switches)

NUMBER OF POLES

3	Single pole
4	Double pole

ELECTRICAL FUNCTIONS

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

CONTACT MATERIALS

A	Silver
AD	Silver, gold plated
CD	Brass, gold plated

LEVERS

-7	Short Standard
-13	Long

Insulated levers

-11	Long
-8	Short

APPROVALS

UL CECC	Availability : Consult factory for details of approved models.

SPECIAL OPTIONS

X601	Silver plated brass contacts
X696	Higher bushing (for insulated levers)

INSULATING CAPS

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.

S series

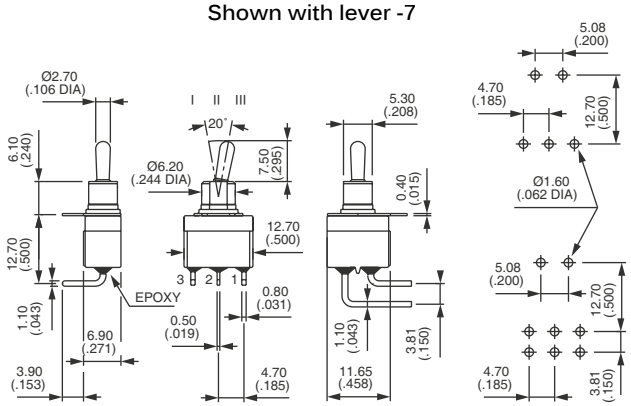
Washable miniature toggle switches • plain bushing

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

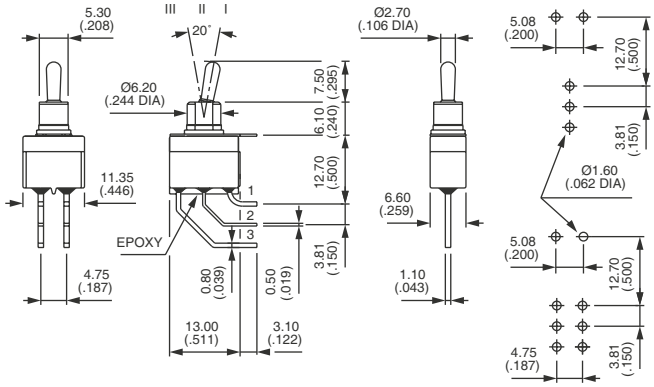
Shown with lever -7



RIGHT ANGLE TERMINALS - VERTICAL



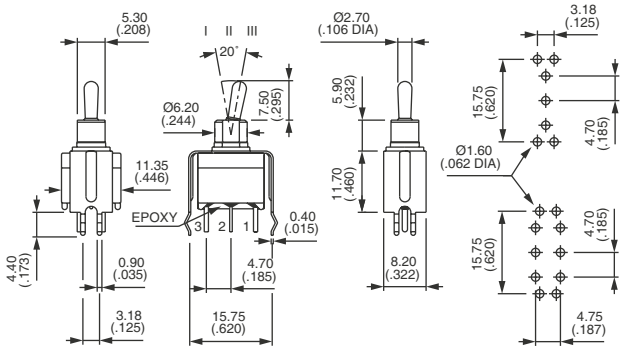
Single pole	Double pole	I 2-3 5-6	II	III 2-1 4-5
SWW236	SWW246	ON	-	ON
SWW239	SWW249	ON	OFF	ON
SWW237	SWW247	MOM	OFF	MOM
SWW238	SWW248**	ON	OFF	MOM
SWW232	SWW242**	ON	-	MOM
	SWW244TH*	ON	ON	ON



BRACKET MOUNTING



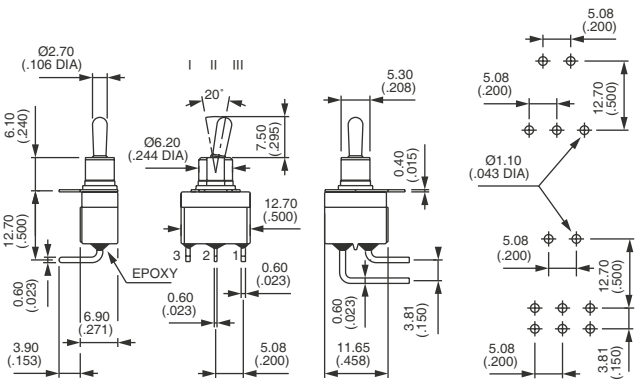
Single pole	Double pole	I 2-3 5-6	II	III 2-1 4-5
SY236	SY246	ON	-	ON
SY239	SY249	ON	OFF	ON
SY237	SY247	MOM	OFF	MOM
SY238	SY248	ON	OFF	MOM
SY232	SY242	ON	-	MOM
	SY244TH*	ON	ON	ON



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



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

S series

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CONTACT MATERIALS

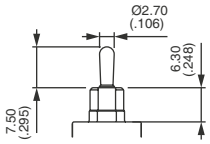
BASIC P/N

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

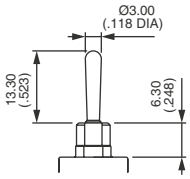
LEVERS

BASIC P/N

METAL LEVERS



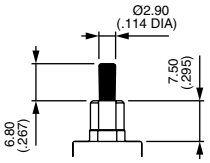
-7
Standard



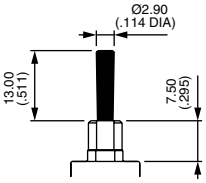
-13
Long

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

INSULATED LEVERS



-8
Short



-11
Long

Protected against electrostatic discharges (ESD) up to 12 KV. Black color.
ⓘ To combine with option X696.

SPECIAL OPTIONS

BASIC P/N

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

BASIC P/N

UL
CECC
Blank No agency approval required.

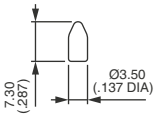
Availability : consult factory for details of approved models.
Marking : to order switches marked UL or CECC, please complete above box with desired approvals.

S series

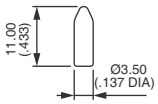
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INSULATING CAPS

BASIC P/N + U...



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 SWW249A7 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