

IP 67  
ACCORDING TO  
EN 60529:1991+A1:2001  
IEC 60529:2001

UL US  
E 187490

RoHS  
compliant

Pb  
lead-free

### SPECIFICATIONS

**CONTACT RATING:** Dependent upon contact material

**MECHANICAL LIFE:** 30,000 make-and-break cycles.

**CONTACT RESISTANCE:** 10 mΩ max. initial @ 2-4VDC  
100mA for both silver and gold plated contacts.

**INSULATION RESISTANCE:** 1,000 MΩ min.

**DIELECTRIC STRENGTH:** 1,000 Vrms min. @sea level.

**OPERATING TEMPERATURE:** -30°C to 85°C.

### MATERIALS

**CASE & BUSHING :** Glass filled nylon 6/6, flame retardant,  
heat stabilized (UL94V-0).

**ACTUATOR:** Nylon, black std. Internal O-ring seal standard  
with all actuators.

**SWITCH SUPPORT:** Brass or steel, tin plated.

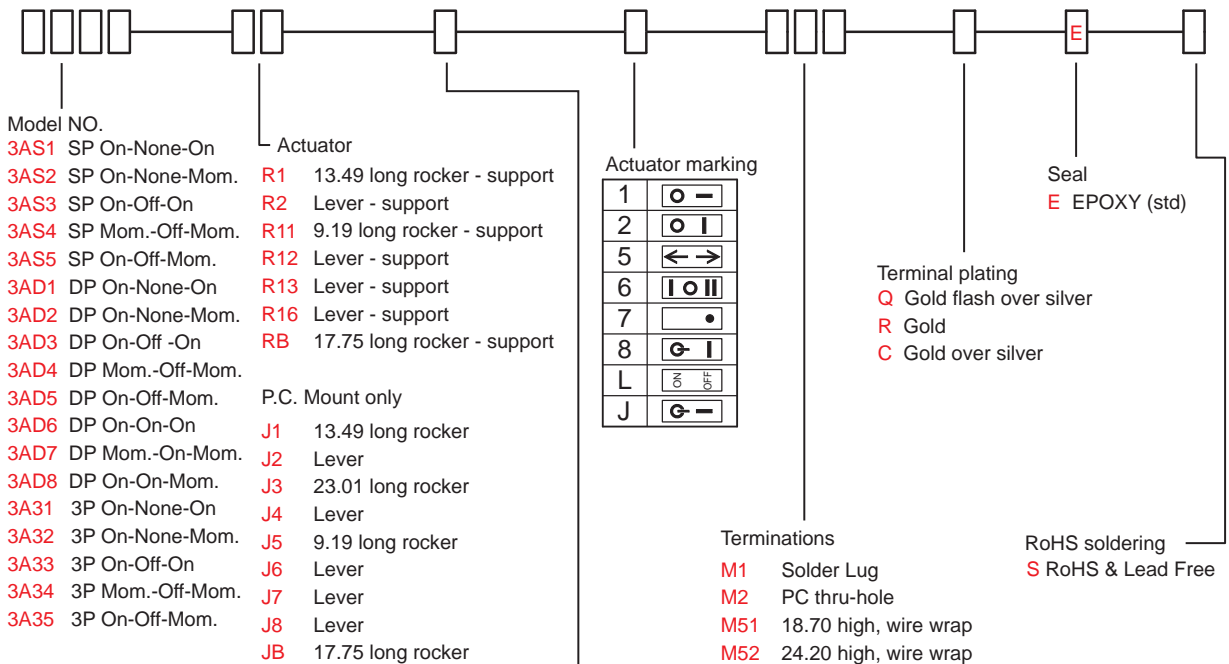
**ACTUATOR PIVOT & MOUNTING BRACKET:** Nylon.

**ACTUATOR PIVOT RETAINER:** Stainless steel.

**TERMINAL/CONTACT:** Silver or gold plated copper alloy.

## HOW TO ORDER

MODEL NO.    ACTUATOR    ACTUATOR COLOR    ACTUATOR MARKING    TERMINATIONS    TERMINAL PLATING    SEAL    RoHS SOLDERING



ITEM NO	COLOR
1	White
2	Black (Std)
3	Red
4	Orange
5	Yellow
6	Green
7	Blue
8	Brown
9	Gray

\* Besides standard color,  
other colors need to check stocks available.



3A  
Rocker Switches

3A Series

Swaled Miniature Rocker & Paddle Switches

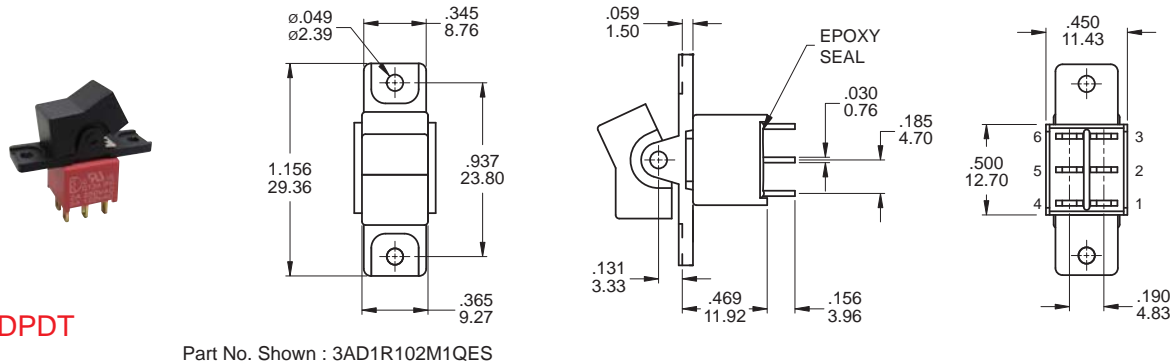
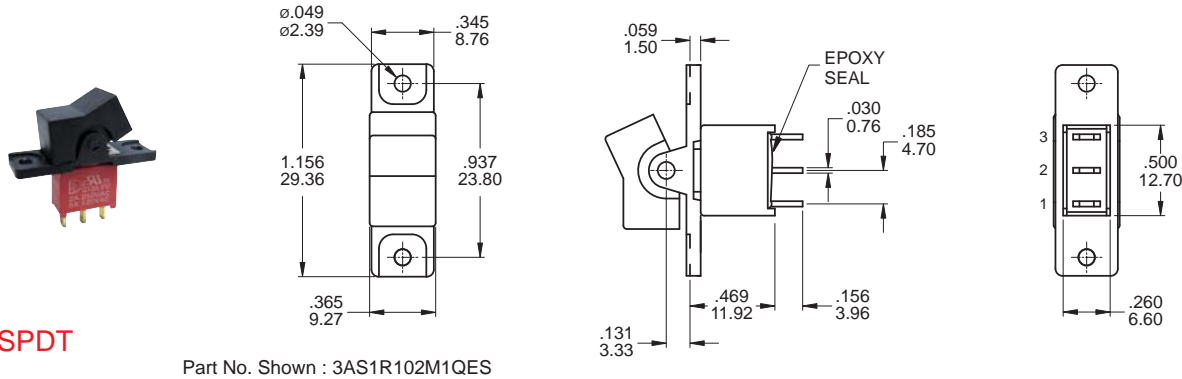
SWITCH FUNCTION

NO. POLES	UL/CSA MODEL NO.	MODEL NO.	SWITCH FUNCTION			CONNECTED TERMINALS / SCHEMATIC		
			POS.1	POS.2	POS.3	POS.1	POS.2	POS.3
SP	Q13A11	3AS1	ON	NONE	ON	2-3 	N/A	2-1
	Q13A12	3AS2	ON	NONE	MOM		OPEN	
	Q13A13	3AS3	ON	OFF	ON			
	Q13A14	3AS4	MOM	OFF	MOM		OPEN	
	Q13A15	3AS5	ON	OFF	MOM			
DP	Q13A21	3AD1	ON	NONE	ON	2-3,5-6 	N/A	2-1,5-4
	Q13A22	3AD2	ON	NONE	MOM		OPEN	
	Q13A23	3AD3	ON	OFF	ON			
	Q13A24	3AD4	MOM	OFF	MOM		OPEN	
	Q13A25	3AD5	ON	OFF	MOM			
	Q13A26	3AD6	ON	ON	ON			
	▲ Q13A27	3AD7	MOM	ON	MOM	2-3,5-6	2-3,5-4	2-1,5-4
	▲ Q13A28	3AD8	ON	ON	MOM			
3P	Q13A31	3A31	ON	NONE	ON	2-3,5-6,8-9 	N/A	2-1,5-4,8-7
	Q13A32	3A32	ON	NONE	MOM		OPEN	
	Q13A33	3A33	ON	OFF	ON			
	Q13A34	3A34	MOM	OFF	MOM		OPEN	
	Q13A35	3A35	ON	OFF	MOM			

MOM=MOMENTARY

▲ Please check the availability in advance before order

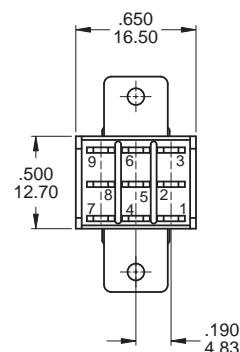
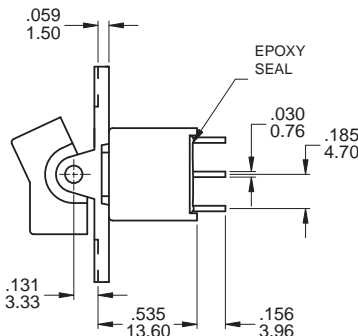
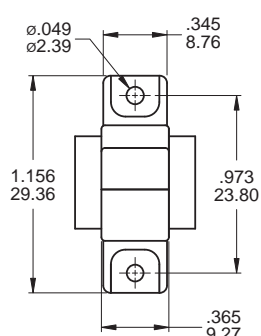
POLE OPTIONS





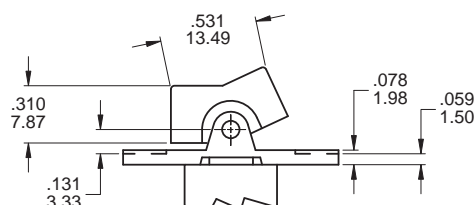
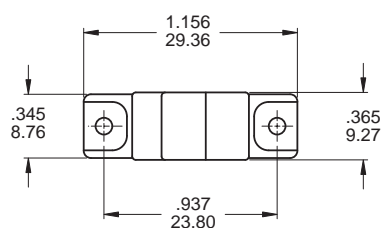
3PDT

Part No. Shown : 3A31R102M1RES

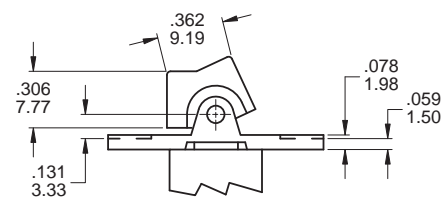
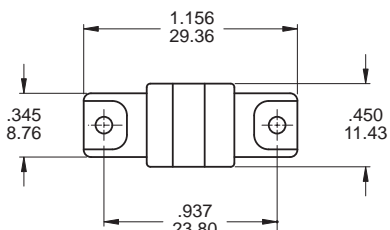


### ACTUATOR OPTIONS FOR PANEL MOUNT ONLY

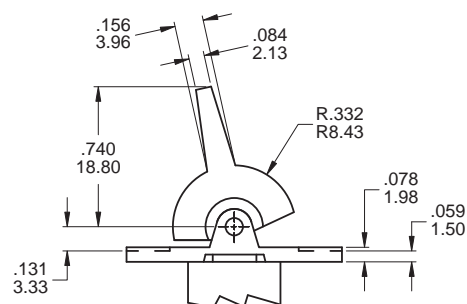
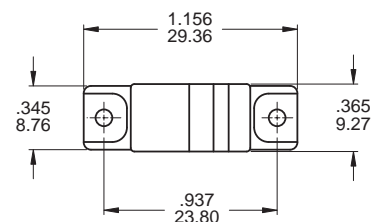
R1



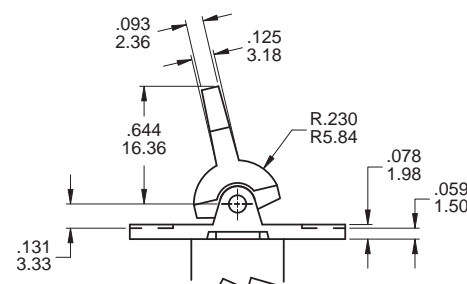
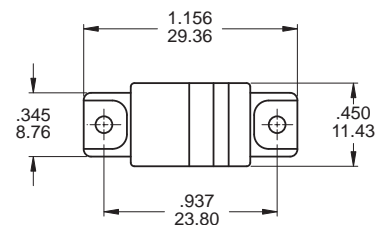
R11



R2



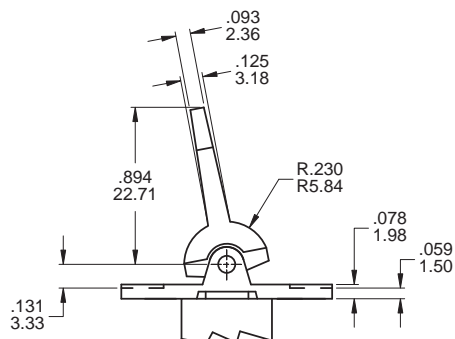
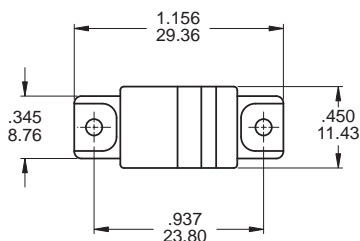
R12



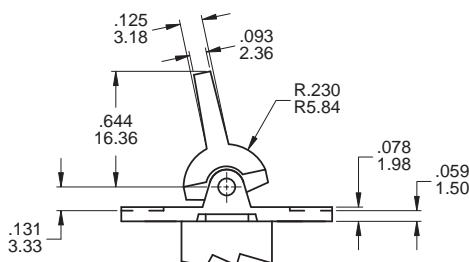
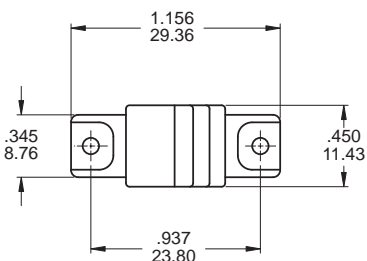
# 3A Series

Sealed Miniature Rocker & Paddle Switches

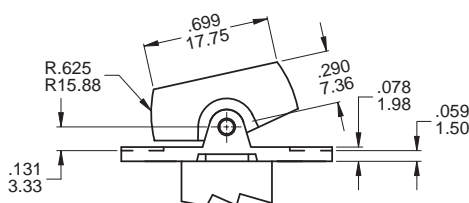
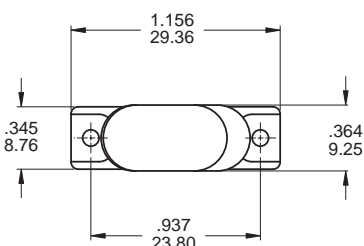
## R13



## R16

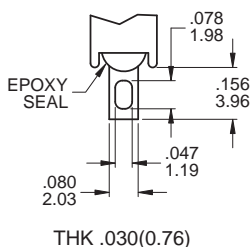


## RB

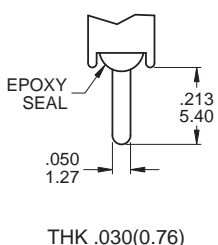


## TERMINATION OPTIONS

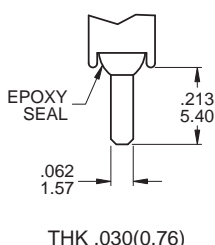
### M1 Solder lug



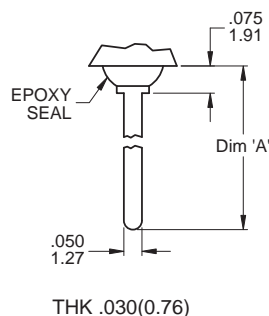
### M2 PC Thru-hole



### M3 Quick connect



### M5 Wire Wrap



## OTHER TERMINATION OPTIONS

**M6** Right angle P.C. Mount

**M7** Right angle P.C. Mount

**VS2** Vertical bracket P.C. Mount

**VS3** Vertical bracket P.C. Mount

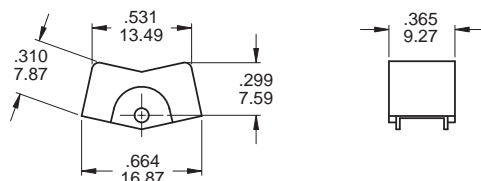
**M6N** Right angle P.C. Mount with snap-in bracket

**V2N** Vertical bracket P.C. Mount with snap-in bracket

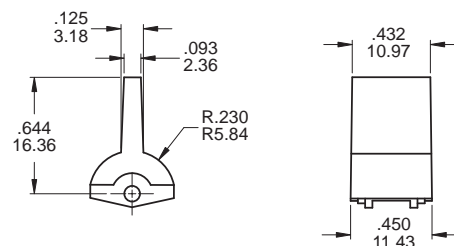
OPTION CODE	DIM. 'A'
M51	.736 (18.70)
M52	.953 (24.20)
M53	.415 (10.55)
M54	1.062 (26.97)

### ACTUATOR OPTIONS FOR P.C. MOUNT ONLY

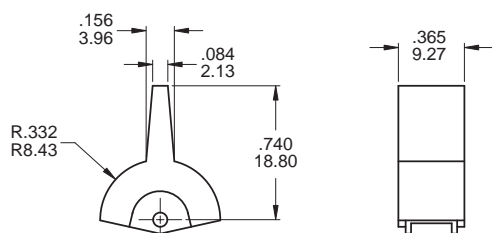
J1



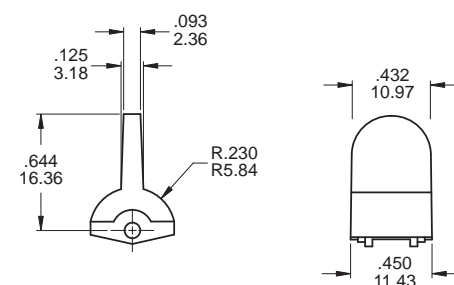
J6



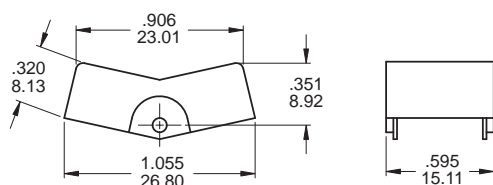
J2



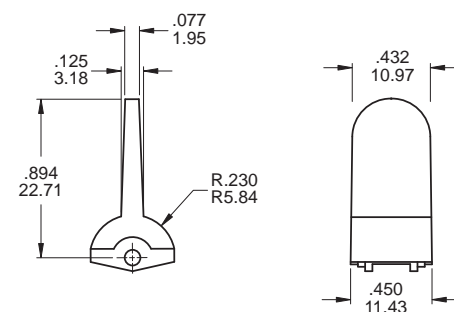
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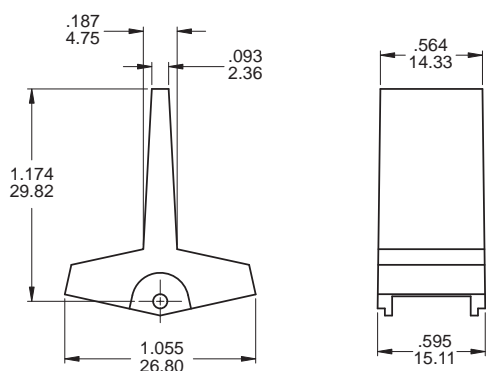
J3



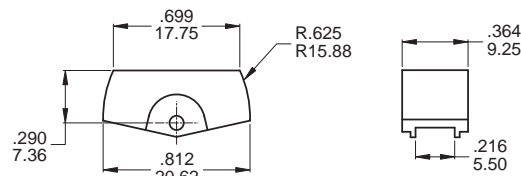
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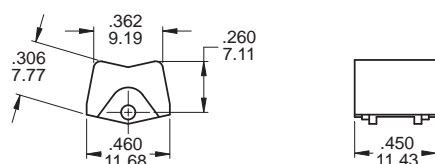
J4



JB



J5



#### Actuator colors:

ITEM NO	COLOR
1	White
2	Black ( Std )
3	Red
4	Orange
5	Yellow
6	Green
7	Blue
8	Brown
9	Gray

\* Besides standard color, other colors need to check stocks available.

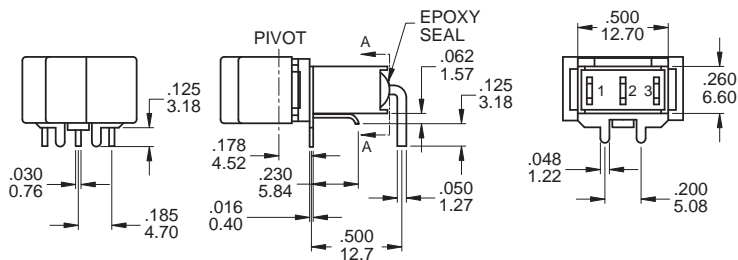


3A  
Rocker Switches

# 3A Series

Sealed Miniature Rocker & Paddle Switches

M6



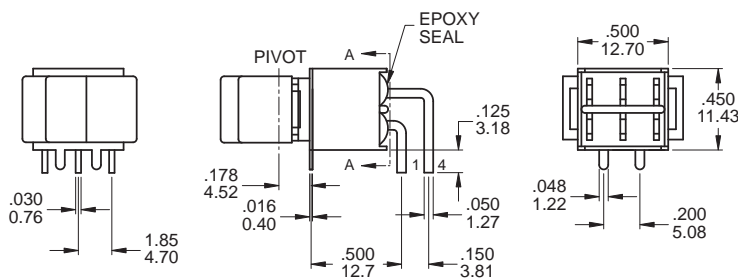
SECTION A-A  
TERM.NOS.FOR  
REFERENCE ONLY

P.C. MOUNTING

SPDT

Part No. Shown : 3AS1J102M6QES

M6



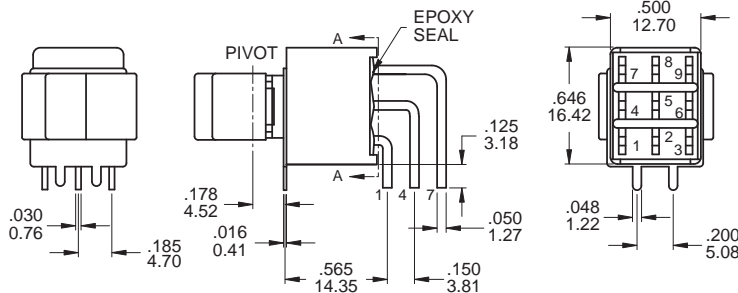
SECTION A-A  
TERM.NOS.FOR  
REFERENCE ONLY

P.C. MOUNTING

DPDT

Part No. Shown : 3AD1J102M6QES

M6



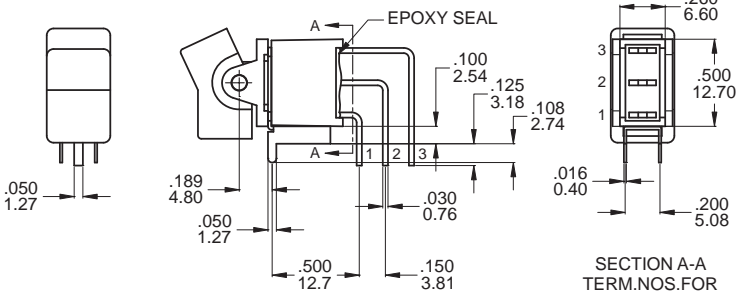
SECTION A-A  
TERM.NOS.FOR  
REFERENCE ONLY

P.C. MOUNTING

3PDT

Part No. Shown : 3A31J102M6RES

M7



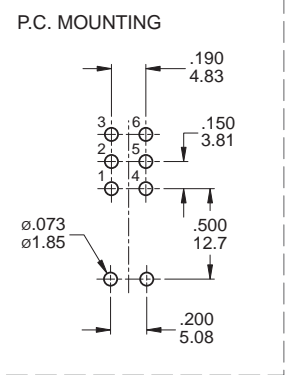
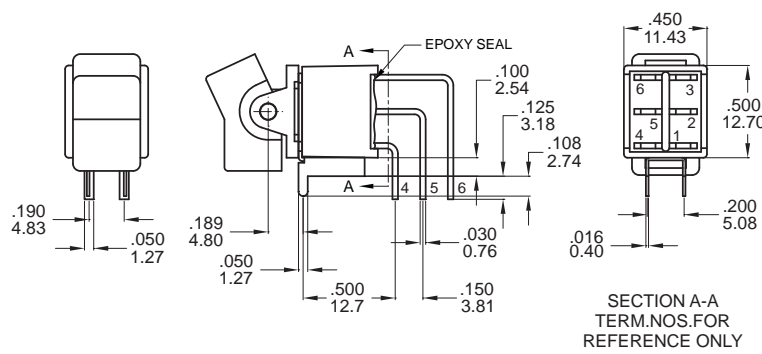
SECTION A-A  
TERM.NOS.FOR  
REFERENCE ONLY

P.C. MOUNTING

SPDT

Part No. Shown : 3AS1J102M7RES

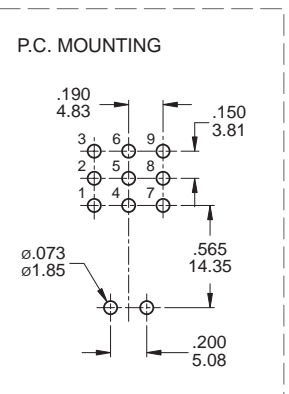
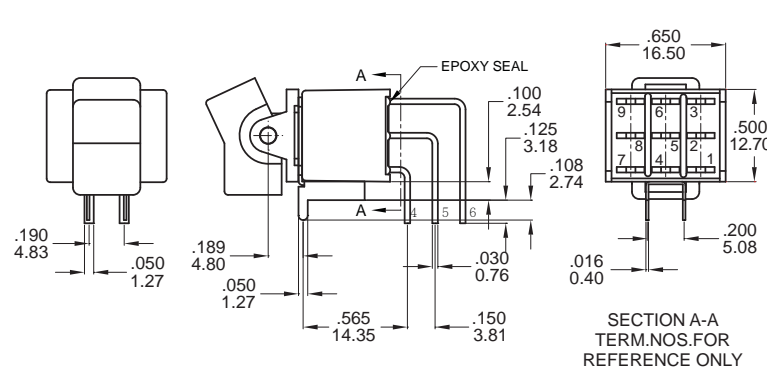
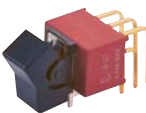
M7



DPDT

Part No. Shown : 3AD1J102M7RES

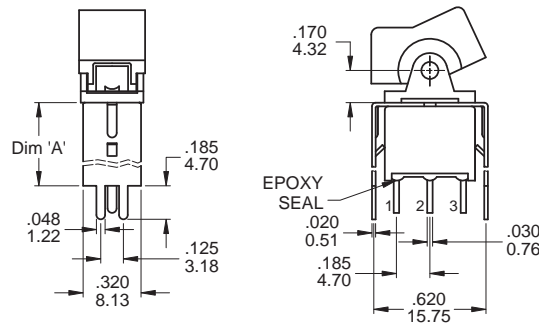
M7



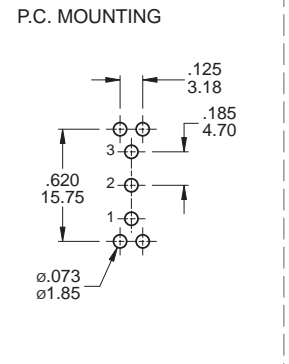
3PDT

Part No. Shown : 3A31J102M7RES

VS2 - VS3



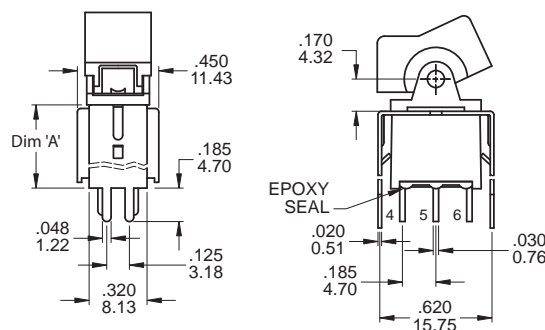
OPTION CODE	DIM. 'A'
VS2	.460 11.68
VS3	.630 16.00



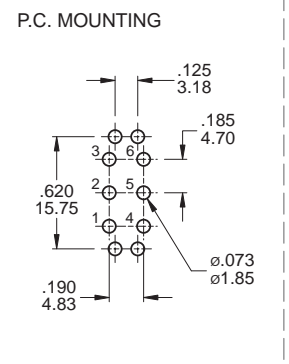
SPDT

Part No. Shown : 3AS1J102VS2QES

VS2 - VS3



OPTION CODE	DIM. 'A'
VS2	.460 11.68
VS3	.630 16.00



DPDT

Part No. Shown : 3AD1J102VS2QES



3A  
Rocker Switches

# 3A Series

Sealed Miniature Rocker & Paddle Switches

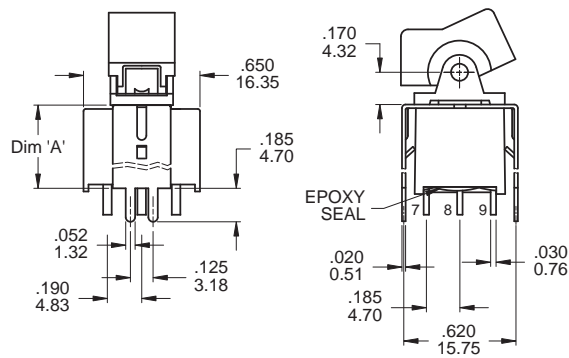


3A  
Rocker Switches

## VS2 - VS3

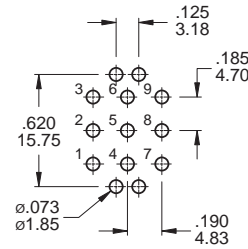


3PDT



OPTION CODE	DIM. 'A'
VS2	.460 11.68
VS3	.630 16.00

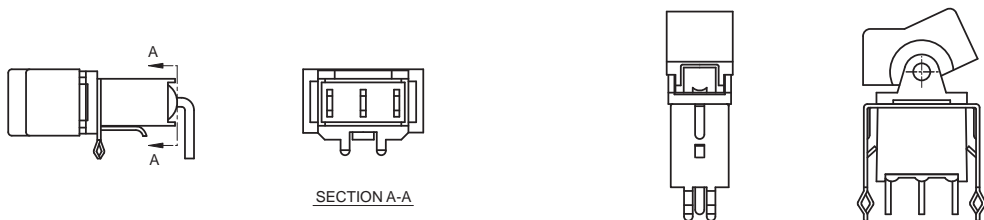
### P.C. MOUNTING



## SNAP-IN TERMINATION OPTIONS

M6N

V2N



## CONTACT MATERIAL OPTIONS

	CONTACT PLATING	TERMINAL PLATING	RATINGS
Q	Silver	Q = Gold flash over silver	5 Amps with resistant load @ 120VAC or 28VDC
C	Gold over Silver	C = Gold over silver	2 Amps with resistant load @ 250VAC
R	Gold	R = Gold	0.4 Volt - Amps ( VA ) max. @ 20V max. ( AC or DC )

## SOLDERING PROCESSES

MANUAL SOLDERING: Use soldering iron of 30 watts, controlled at 350°C approximately 5 seconds while applying solder.

WAVE SOLDERING: Recommended Soldering Temperature: 270 ± 5°C

Duration of Solder Immersion: Max 5 sec. (PCB is 1.6mm in thickness)