

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 See Page 64.

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.

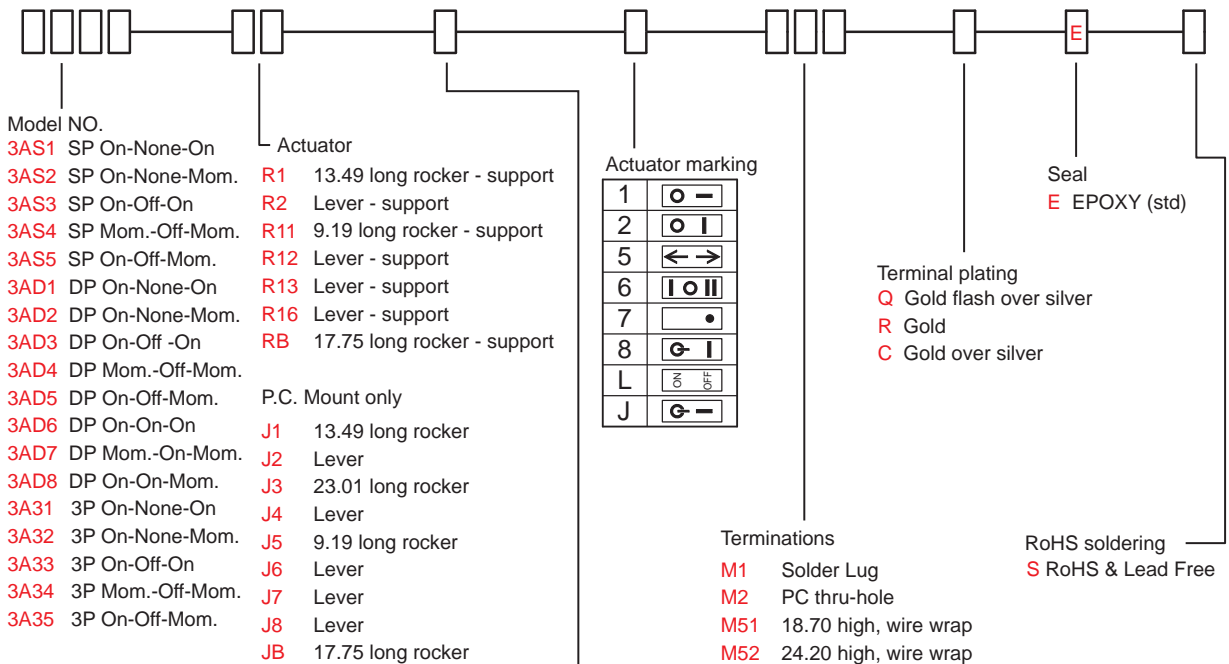
ACTUATOR PIVOT & MOUNTING BRACKET: Nylon.

ACTUATOR PIVOT RETAINER: Stainless steel.

TERMINAL/CONTACT: Silver or gold plated copper alloy.
(See Page 64)

HOW TO ORDER

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



- Model NO.**
- 3AS1 SP On-None-On
 - 3AS2 SP On-None-Mom.
 - 3AS3 SP On-Off-On
 - 3AS4 SP Mom.-Off-Mom.
 - 3AS5 SP On-Off-Mom.
 - 3AD1 DP On-None-On
 - 3AD2 DP On-None-Mom.
 - 3AD3 DP On-Off -On
 - 3AD4 DP Mom.-Off-Mom.
 - 3AD5 DP On-Off-Mom.
 - 3AD6 DP On-On-On
 - 3AD7 DP Mom.-On-Mom.
 - 3AD8 DP On-On-Mom.
 - 3A31 3P On-None-On
 - 3A32 3P On-None-Mom.
 - 3A33 3P On-Off-On
 - 3A34 3P Mom.-Off-Mom.
 - 3A35 3P On-Off-Mom.
- Actuator**
- R1 13.49 long rocker - support
 - R2 Lever - support
 - R11 9.19 long rocker - support
 - R12 Lever - support
 - R13 Lever - support
 - R16 Lever - support
 - RB 17.75 long rocker - support
- P.C. Mount only**
- J1 13.49 long rocker
 - J2 Lever
 - J3 23.01 long rocker
 - J4 Lever
 - J5 9.19 long rocker
 - J6 Lever
 - J7 Lever
 - J8 Lever
 - JB 17.75 long rocker

Actuator marking

1	○ —
2	○
5	← →
6	○
7	— ●
8	⊕
L	ON OFF
J	⊕ —

Seal
E EPOXY (std)

Terminal plating
Q Gold flash over silver
R Gold
C Gold over silver

- Terminations**
- M1 Solder Lug
 - M2 PC thru-hole
 - M51 18.70 high, wire wrap
 - M52 24.20 high, wire wrap
 - M53 10.55 high, wire wrap
 - M54 26.97 high, wire wrap
 - M6 Right angle, PC thru-hole
 - M6N Right angle, snap-in, PC thru-hole
 - M7 Vertical right angle, PC thru-hole
 - VS2 11.68 high, V-bracket
 - V2N 11.68 high, snap-in V-bracket
 - VS3 16.00 high, V-bracket
- RoHS soldering**
S RoHS & Lead Free

Actuator Color

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 Series

Swaled Miniature Rocker & Paddle Switches

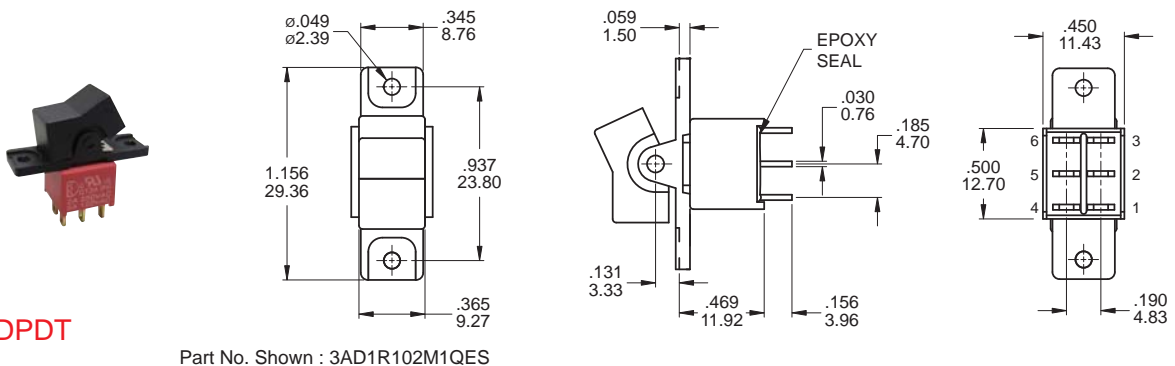
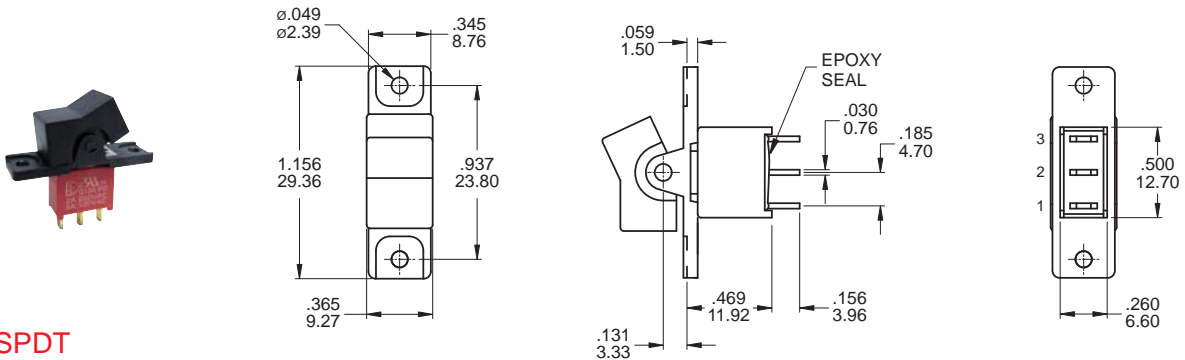
SWITCH FUNCTION

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			
	Q13A13	3AS3	ON	OFF	ON		OPEN	
	Q13A14	3AS4	MOM	OFF	MOM			
	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			
	Q13A23	3AD3	ON	OFF	ON		OPEN	
	Q13A24	3AD4	MOM	OFF	MOM			
	Q13A25	3AD5	ON	OFF	MOM			
	Q13A26	3AD6	ON	ON	ON	2-3,5-6	2-3,5-4	2-1,5-4
	▲ Q13A27	3AD7	MOM	ON	MOM			
	▲ 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			
	Q13A33	3A33	ON	OFF	ON		OPEN	
	Q13A34	3A34	MOM	OFF	MOM			
	Q13A35	3A35	ON	OFF	MOM			

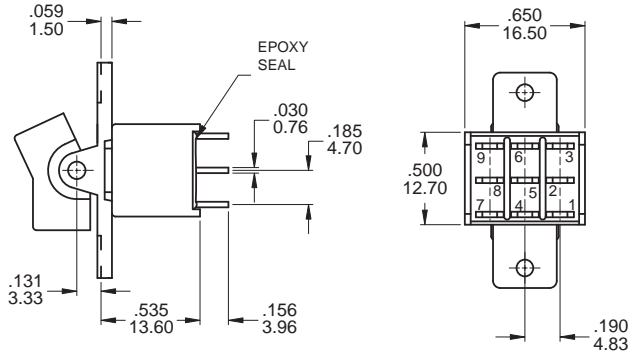
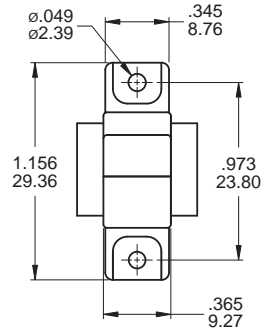
MOM=MOMENTARY

▲ Please check the availability in advance before order

POLE OPTIONS



3A
Rocker Switches

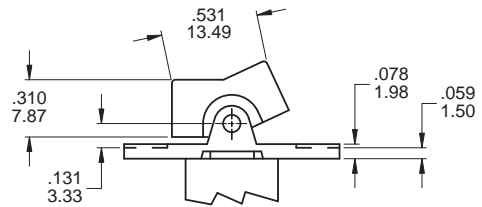
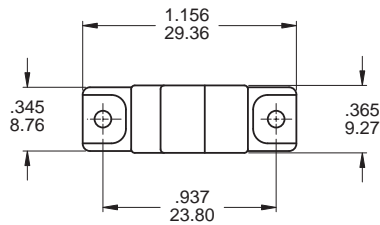


3PDT

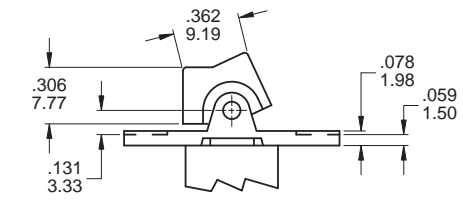
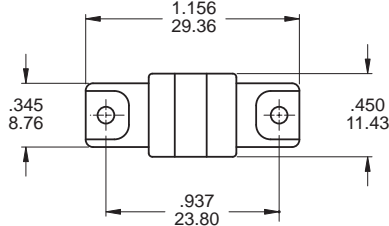
Part No. Shown : 3A31R102M1RES

ACTUATOR OPTIONS FOR PANEL MOUNT ONLY

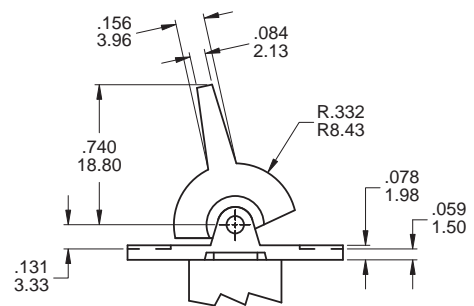
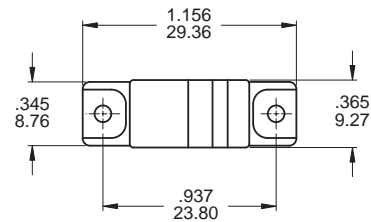
R1



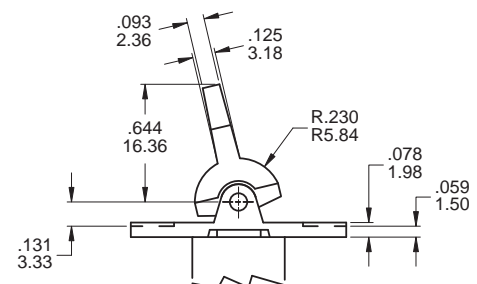
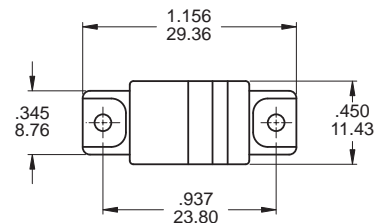
R11



R2



R12



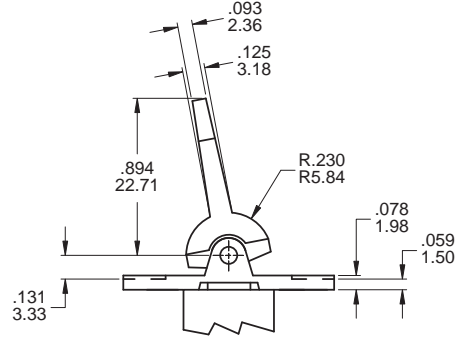
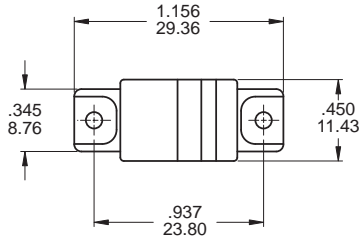
3A Series

Sealed Miniature Rocker & Paddle Switches

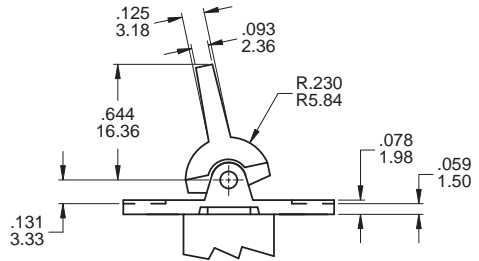
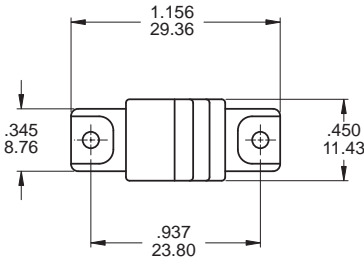


3A
Rocker Switches

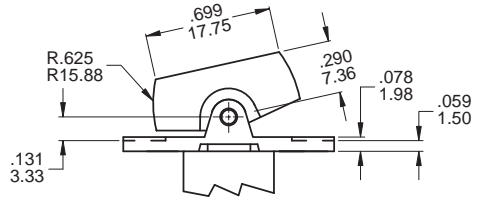
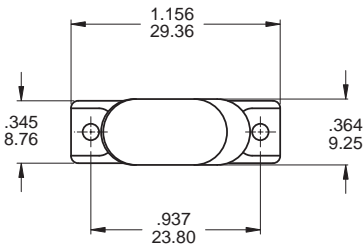
R13



R16

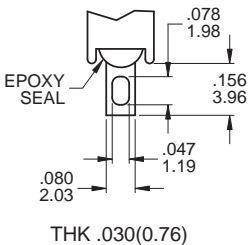


RB

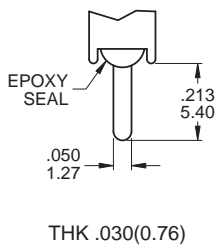


TERMINATION OPTIONS

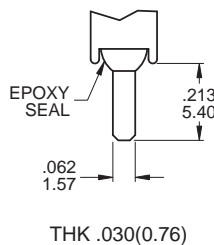
M1 Solder lug



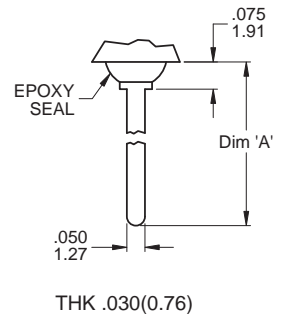
M2 PC Thru-hole



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

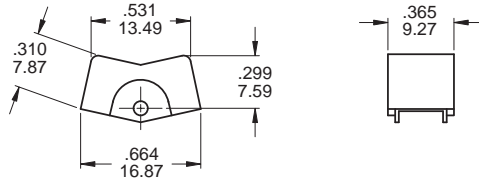
M6N Right angle P.C. Mount with snap-in bracket

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

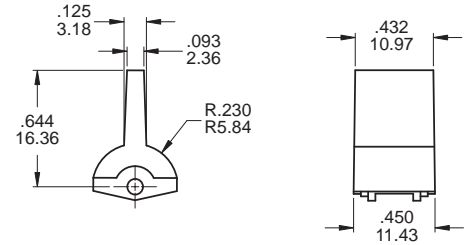
OPTION CODE	DIM. 'A'
M51	.736 (18.70)
M52	.953 (24.20)
M53	.415 (10.55)
M54	1.062 (26.97)

ACTUATOR OPTIONS FOR P.C. MOUNT ONLY

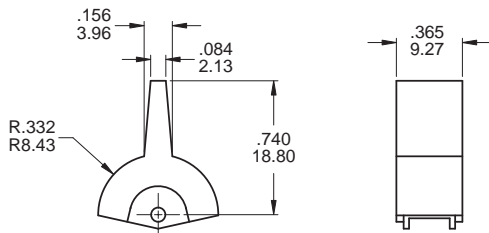
J1



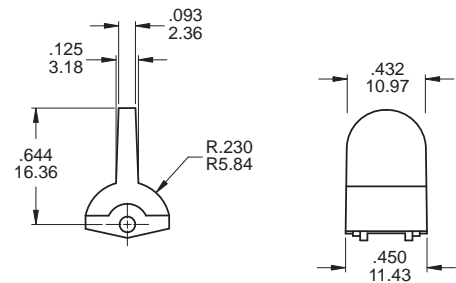
J6



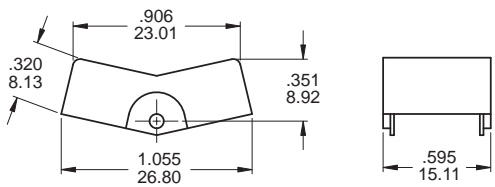
J2



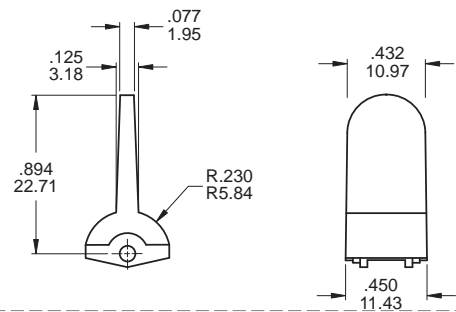
J7



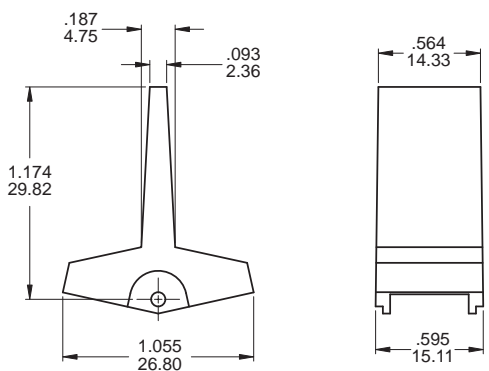
J3



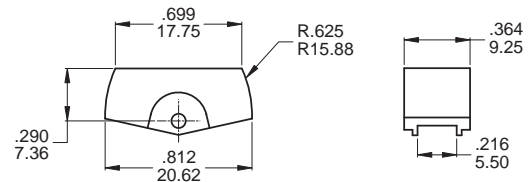
J8



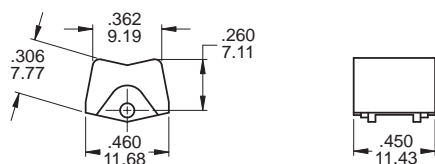
J4



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

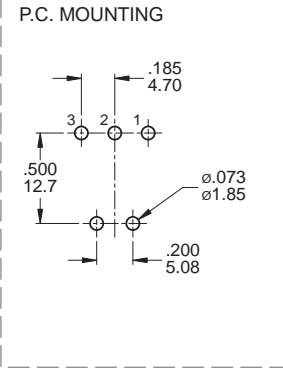
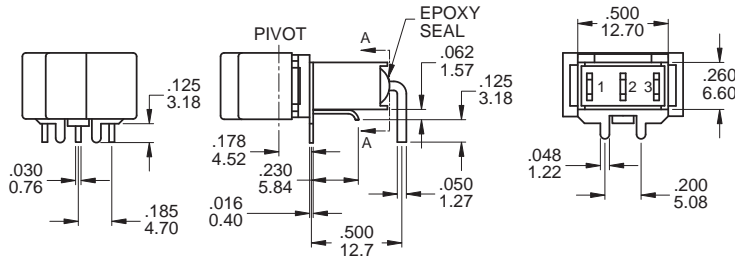
3A Series

Sealed Miniature Rocker & Paddle Switches



3A
Rocker Switches

M6

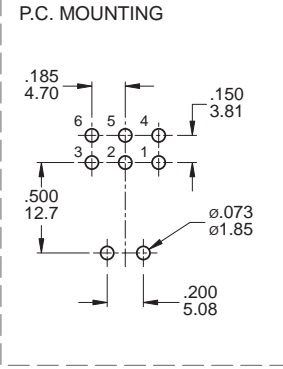
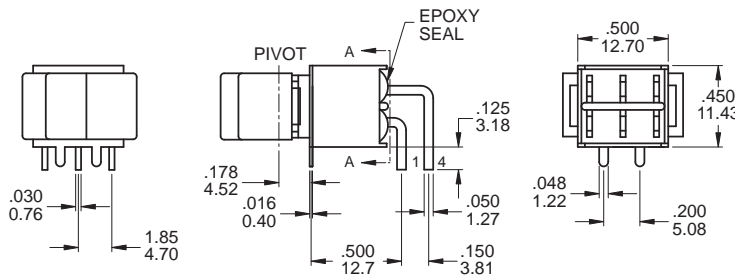


SPDT

Part No. Shown : 3AS1J102M6QES

SECTION A-A
TERM.NOS.FOR
REFERENCE ONLY

M6

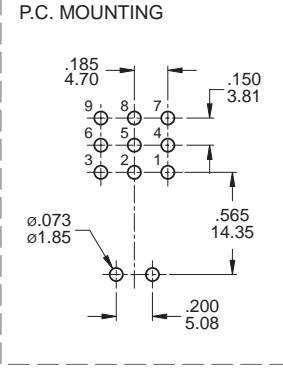
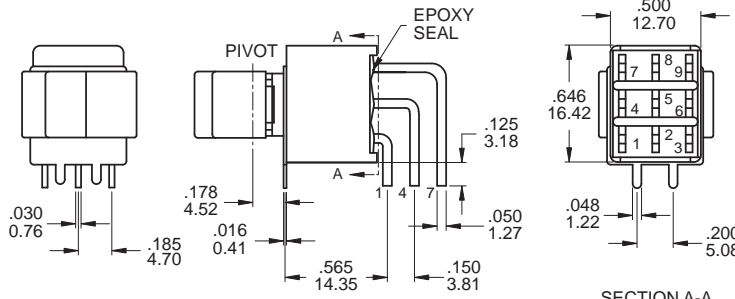


DPDT

Part No. Shown : 3AD1J102M6QES

SECTION A-A
TERM.NOS.FOR
REFERENCE ONLY

M6

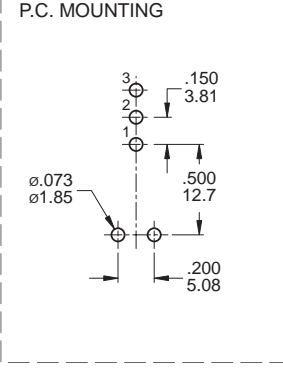
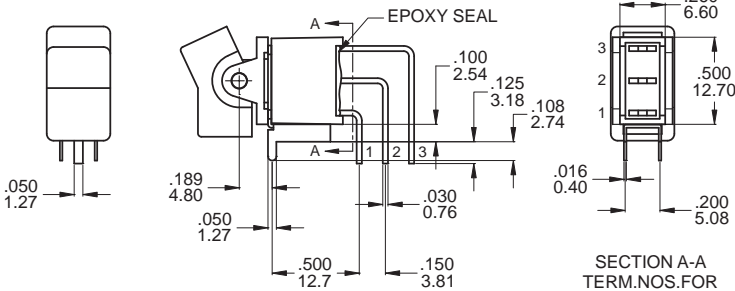


3PDT

Part No. Shown : 3A31J102M6RES

SECTION A-A
TERM.NOS.FOR
REFERENCE ONLY

M7

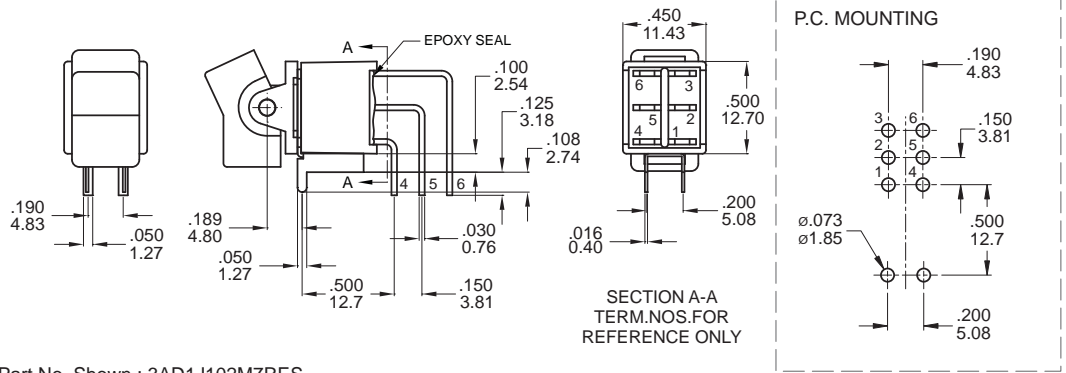


SPDT

Part No. Shown : 3AS1J102M7RES

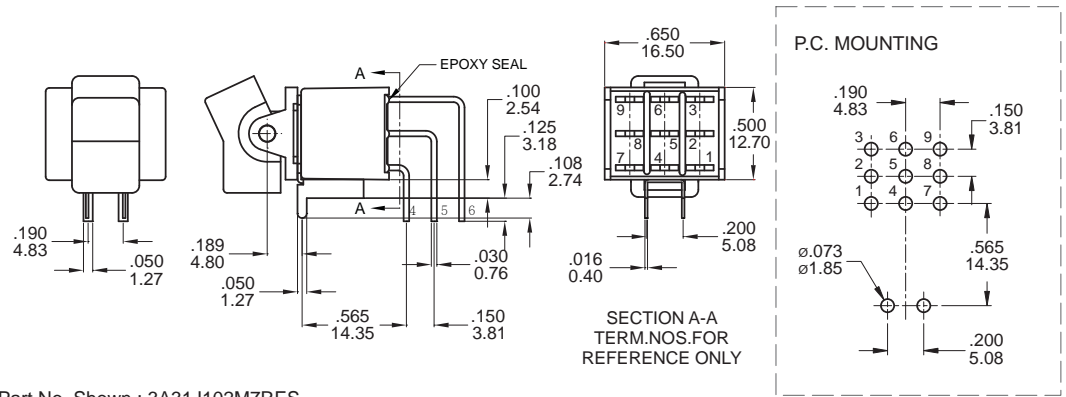
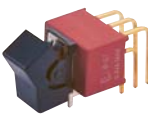
SECTION A-A
TERM.NOS.FOR
REFERENCE ONLY

M7



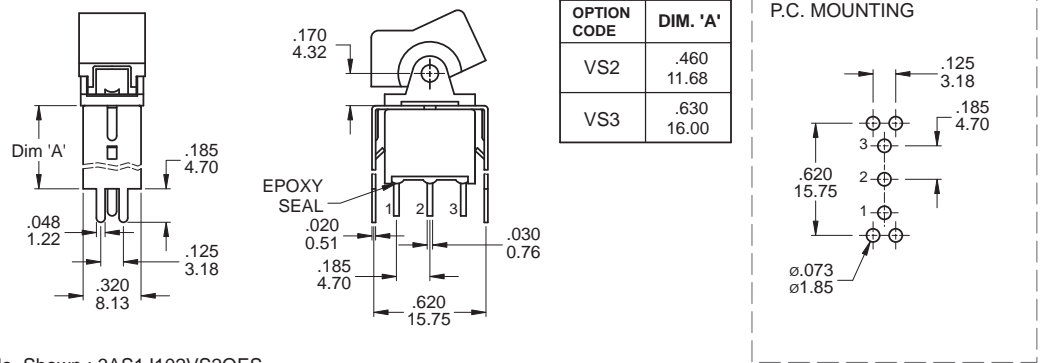
DPDT

M7



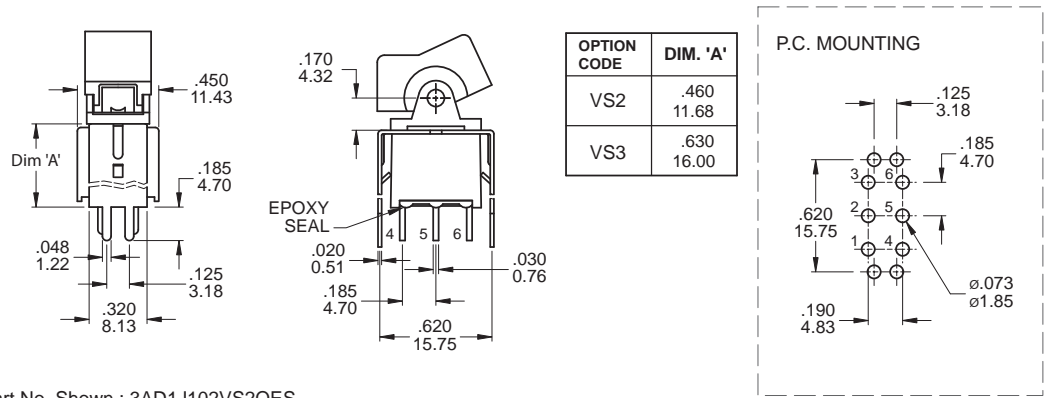
3PDT

VS2 - VS3



SPDT

VS2 - VS3



DPDT



3A Series

Sealed Miniature Rocker & Paddle Switches

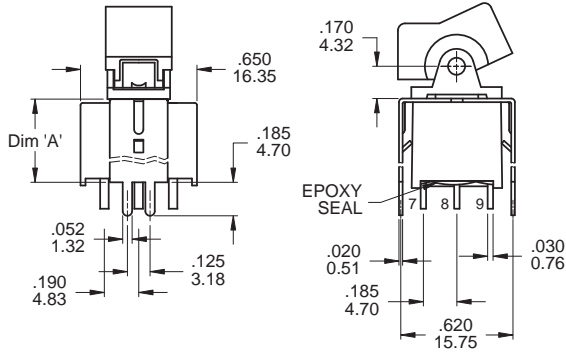


3A
Rocker Switches

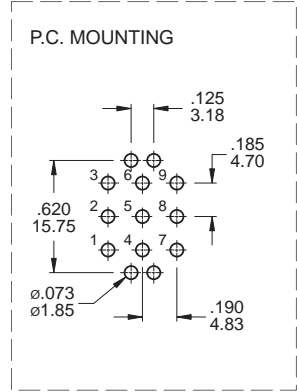
VS2 - VS3



3PDT



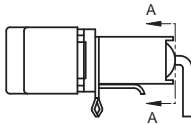
OPTION CODE	DIM. 'A'
VS2	.460 11.68
VS3	.630 16.00



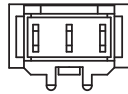
Part No. Shown : 3A31J102VS2RES

SNAP-IN TERMINATION OPTIONS

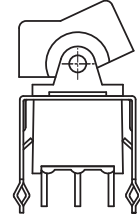
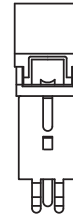
M6N



V2N



SECTION A-A



CONTACT MATERIAL OPTIONS

	CONTACT PLATING	TERMINAL PLATING	RATINGS
Q	Silver	Q = Gold flash over silver	5 Amps with resistant load @ 120VAC or 28VDC 2 Amps with resistant load @ 250VAC
C	Gold over Silver	C = Gold over silver	
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)