



3A Series

Sealed Miniature Rocker & Paddle Switches

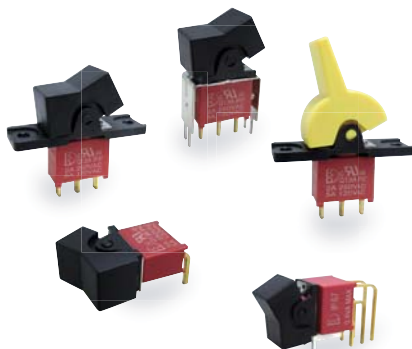
IP 67
ACCORDING TO
EN 60529:1991+A1:2001
IEC 60529:2001

UL US
E 187490

RoHS
compliant



3 A
Rocker Switches



SPECIFICATIONS

CONTACT RATING: Dependent upon contact material, see page 63.

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

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

INSULATION RESISTANCE: 1,000 MΩ min./1000VDC

DIELECTRIC STRENGTH: 1,000 Vrms min.@sea level. (initial value)

OPERATING TEMPERATURE: -40°C to 85°C.

MATERIALS

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

ACTUATOR: Black nylon, internal o-ring sealed.

SWITCH SUPPORT: Brass or steel, tin plated.

ACTUATOR PIVOT & MOUNTING BRACKET: Nylon.

ACTUATOR PIVOT RETAINER: Stainless steel.

TERMINAL/CONTACT: Copper with silver or gold plated.
(See page 63)

HOW TO ORDER

MODEL NO.	ACTUATOR	ACTUATOR COLOR	ACTUATOR COLOR	TERMINAL TYPE	TERMINAL PLATING	SEAL	RoHS SOLDERING
SP						E EPOXY (std)	
3AS1 ON-NONE-ON	R1 13.49 long rocker - support						
3AS2 ON-NONE-(ON)	R2 Lever - support *						
3AS3 ON-OFF-ON	R11 9.19 long rocker - support						
3AS4 (ON)-OFF-(ON)	R12 Lever - support *						
3AS5 ON-OFF-(ON)	R13 Lever - support *						
	R16 Lever - support *						
	RB 17.75 long rocker - support						
DP							
3AD1 ON-NONE-ON	<u>P.C. Mount only</u>						
3AD2 ON-NONE-(ON)	J1 13.49 long rocker						
3AD3 ON-OFF-ON	J2 Lever *						
3AD4 (ON)-OFF-(ON)	J3 23.01 long rocker						
3AD5 ON-OFF-(ON)	J4 Lever *						
3AD6 ON-ON-ON	J5 9.19 long rocker						
3AD7 (ON)-ON-(ON) ▲	J6 Lever *						
3AD8 ON-ON-(ON) ▲	J7 Lever *						
	J8 Lever *						
	JB 17.75 long rocker						
3P							
3A31 ON-NONE-ON							
3A32 ON-NONE-(ON)							
3A33 ON-OFF-ON							
3A34 (ON)-OFF-(ON)							
3A35 ON-OFF-(ON) ▲							

ITEM NO	COLOR
00	Without
01	White
02	Black (Std)
03	Red
04	Orange
05	Yellow
06	Green
07	Blue
09	Gray

**

TERMINAL TYPE	TERMINAL PLATING
1	Q Gold flash over silver
2	R Gold
5	C Gold over silver
6	
7	
8	
L	
J	

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

V-bracket
VS2 11.68 high
V2N 11.68 high, snap-in
VS3 16.00 high

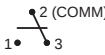
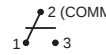
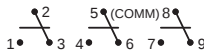
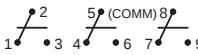
▲ Please confirm the availability before order.

* The actuator mark cannot be printed
** Except standard color, for other colors information please consult sales representativity.

EXAMPLE:
3AS1R1□M1QES (STD)
└ Actuator color

3AS1R1□□M1QES
└ Actuator marking
└ Actuator color

▼ 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	(ON)		OPEN	
	Q13A13	3AS3	ON	OFF	ON			
	Q13A14	3AS4	(ON)	OFF	(ON)			
	Q13A15	3AS5	ON	OFF	(ON)			
DP ▲ ▲	Q13A21	3AD1	ON	NONE	ON	2-3,5-6 	N/A	2-1,5-4
	Q13A22	3AD2	ON	NONE	(ON)		OPEN	
	Q13A23	3AD3	ON	OFF	ON			
	Q13A24	3AD4	(ON)	OFF	(ON)			
	Q13A25	3AD5	ON	OFF	(ON)			
	Q13A26	3AD6	ON	ON	ON	2-3,5-6	2-3,5-4	2-1,5-4
	Q13A27	3AD7	(ON)	ON	(ON)			
	Q13A28	3AD8	ON	ON	(ON)			
3P ▲	Q13A31	3A31	ON	NONE	ON	2-3,5-6,8-9 	N/A	2-1,5-4,8-7
	Q13A32	3A32	ON	NONE	(ON)		OPEN	
	Q13A33	3A33	ON	OFF	ON			
	Q13A34	3A34	(ON)	OFF	(ON)			
	Q13A35	3A35	ON	OFF	(ON)			

()=MOMENTARY

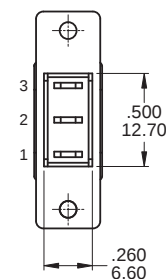
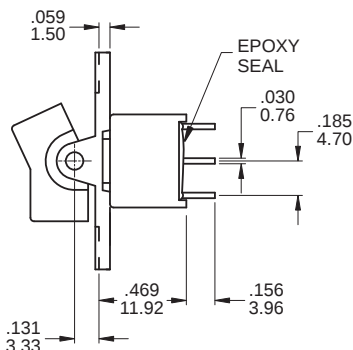
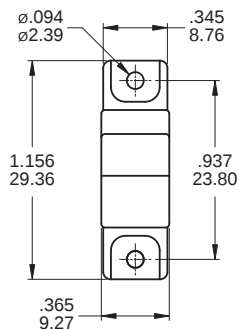
▲ Please confirm the availability before order.

▼ POLE OPTIONS



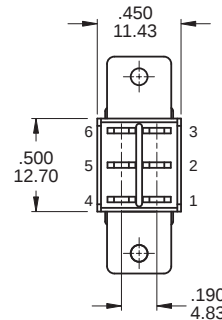
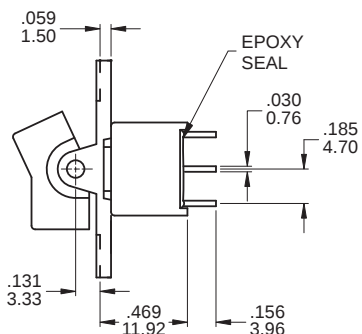
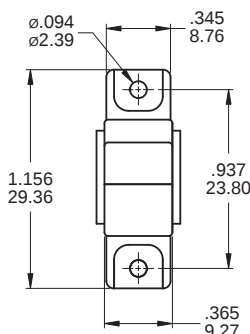
SPDT

Model name. 3AS1R102M1QES



DPDT

Model name. 3AD1R102M1QES





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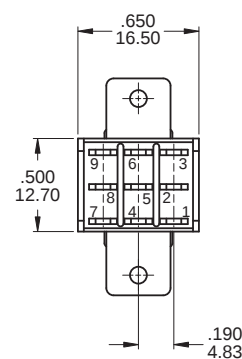
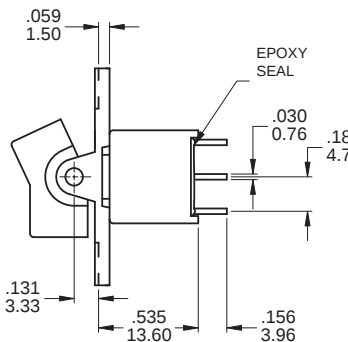
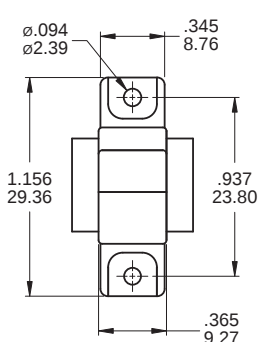
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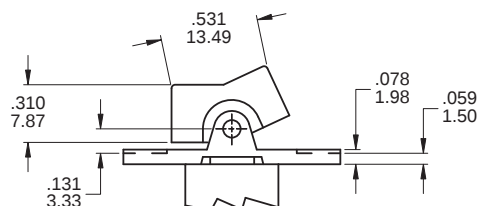
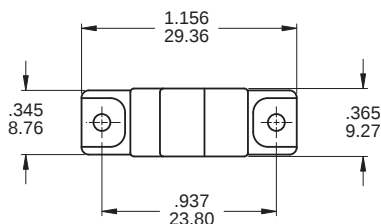


3PDT

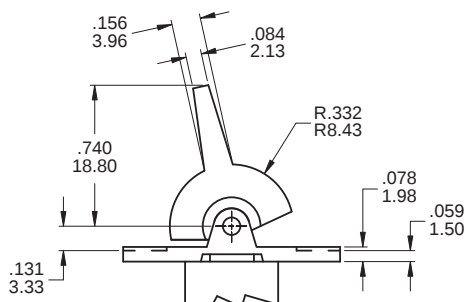
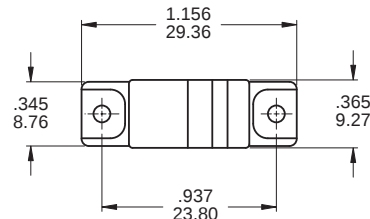
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▼ ACTUATOR OPTIONS FOR PANEL MOUNT ONLY

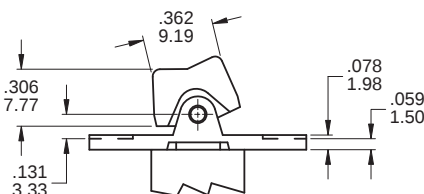
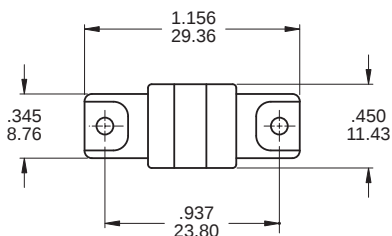
R1



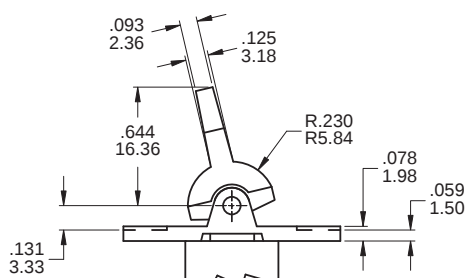
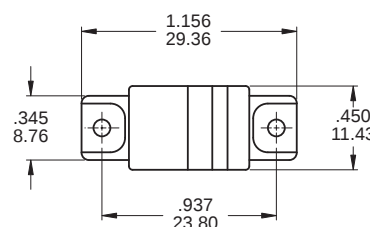
R2



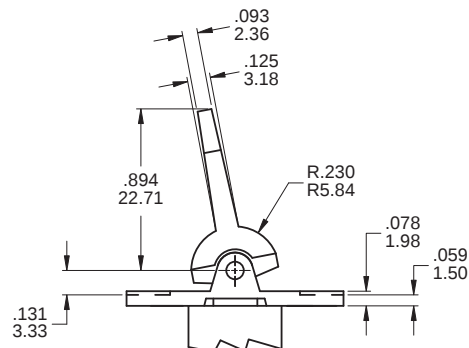
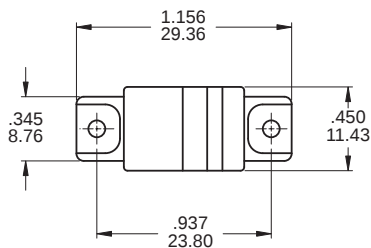
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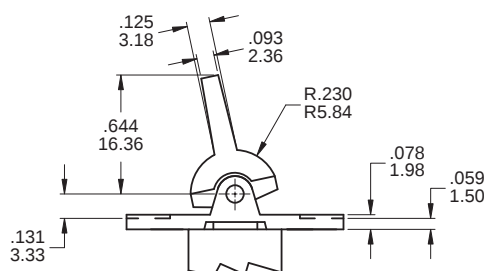
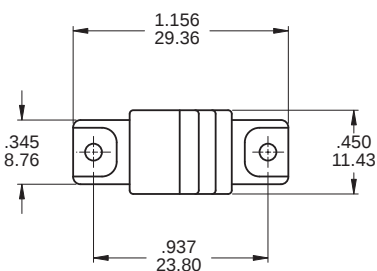
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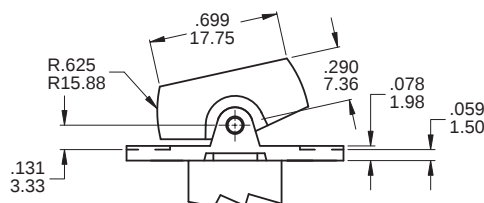
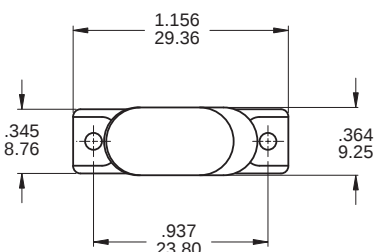
R13



R16

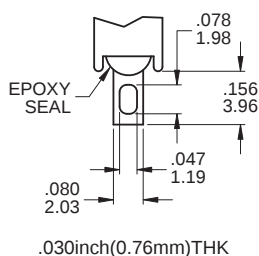


RB

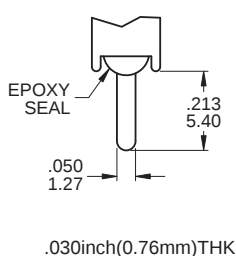


▼ TERMINAL OPTIONS

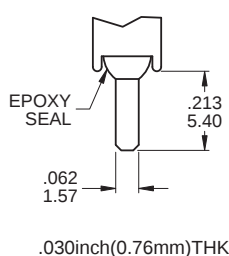
M1 Solder lug



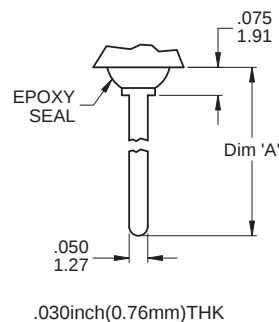
M2 PC Thru-hole



M3 Quick connect



M5 Wire Wrap



▼ OTHER TERMINAL 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)



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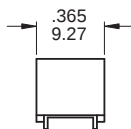
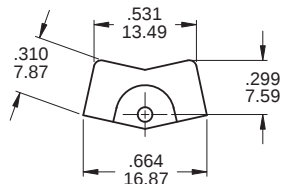
RoHS
compliant

Pb
lead-free

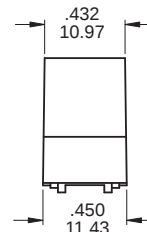
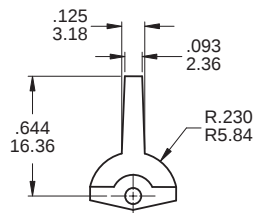
3 A
Rocker Switches

▼ ACTUATOR OPTIONS FOR P.C. MOUNT ONLY

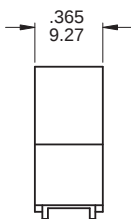
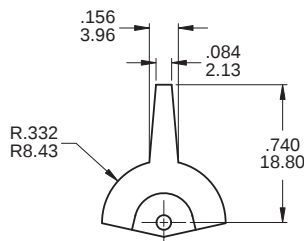
J1



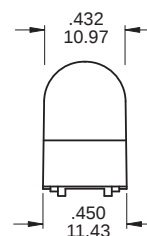
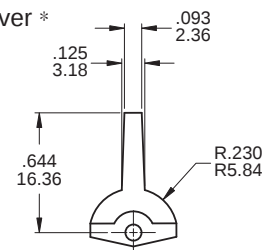
J6 Lever *



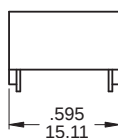
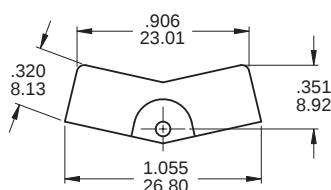
J2 Lever *



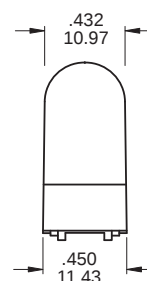
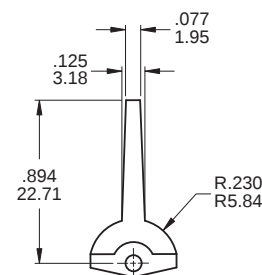
J7 Lever *



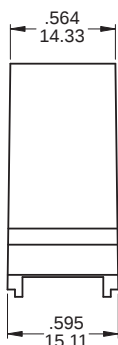
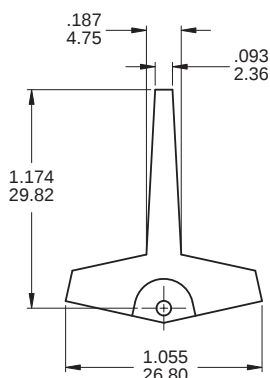
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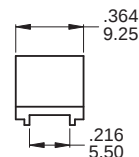
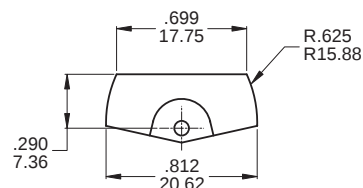
J8 Lever *



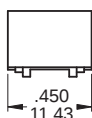
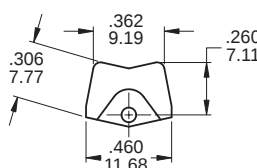
J4 Lever *



JB



J5



ACTUATOR COLORS:

ITEM NO	COLOR
01	White
02	Black (Std)
03	Red
04	Orange
05	Yellow
06	Green
07	Blue
09	Gray

**

* The actuator mark cannot be printed

** Except standard color, for other colors information please consult sales representativity.

EXAMPLE:

3AS1J1□□QES

Terminal type
Actuator color

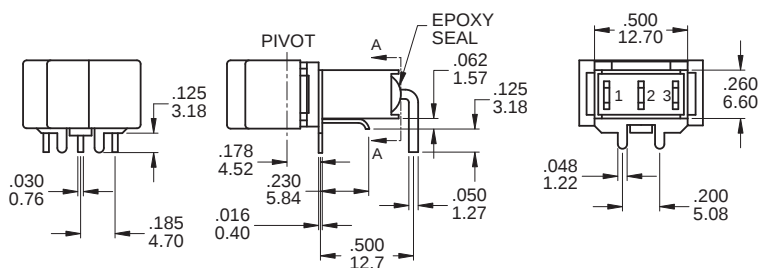
3AS1J1□□□QES

Terminal type
Actuator marking
Actuator color

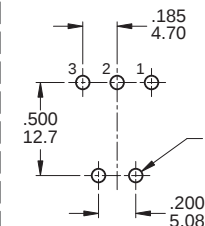
▼ TERMINAL OPTIONS

M6

(M6N - Snap-in)



PCB MOUNTING

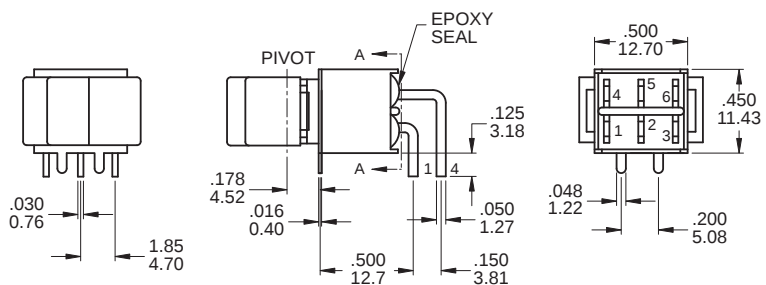


SPDT

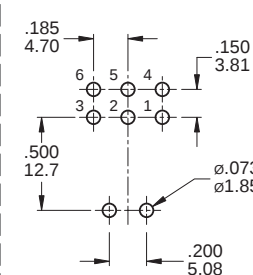
Model name. 3AS1J102M6QES

M6

(M6N - Snap-in)



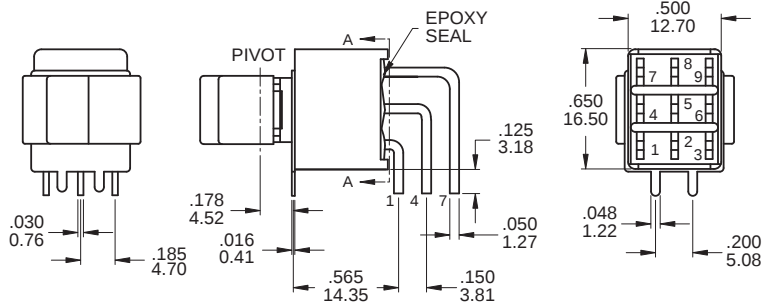
PCB MOUNTING



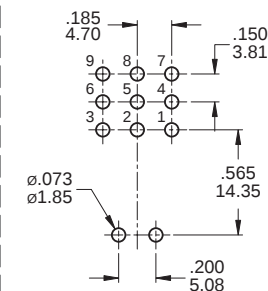
DPDT

Model name. 3AD1J102M6QES

M6



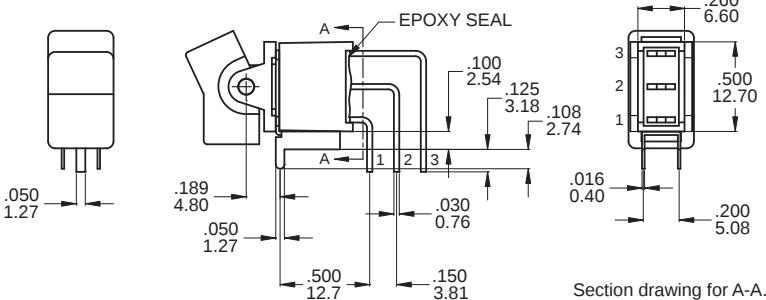
PCB MOUNTING



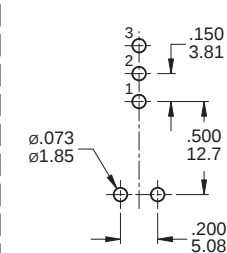
3PDT

Model name. 3A31J102M6RES

M7



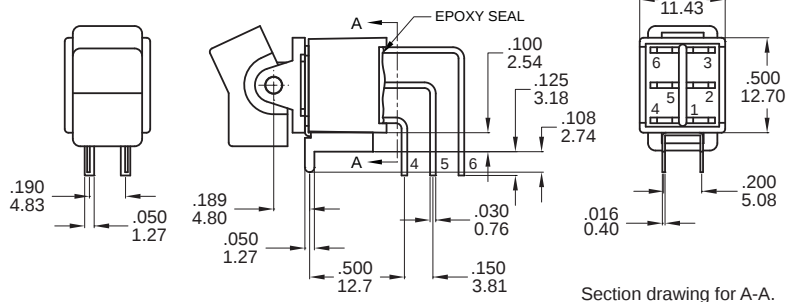
PCB MOUNTING



SPDT

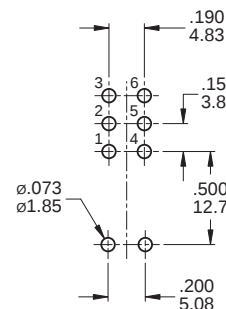
Model name. 3AS1J102M7RES

M7



Section drawing for A-A.

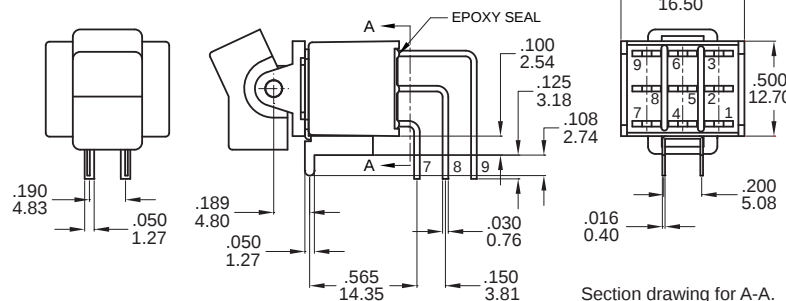
PCB MOUNTING



DPDT

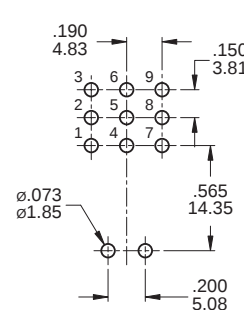
Model name. 3AD1J102M7RES

M7



Section drawing for A-A.

PCB MOUNTING

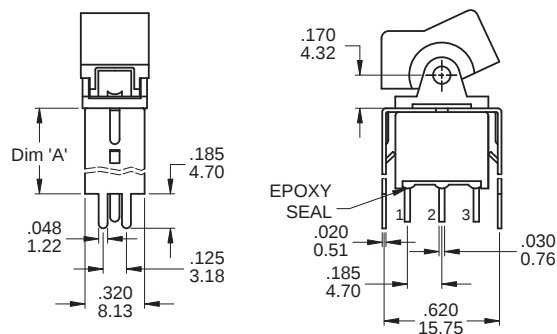


3PDT

Model name. 3A31J102M7RES

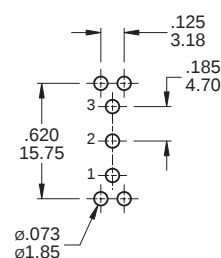
VS2 / VS3

(V2N - Snap-in)



OPTION CODE	DIM. 'A'
VS2 (V2N)	.460 11.68
VS3	.630 16.00

PCB MOUNTING

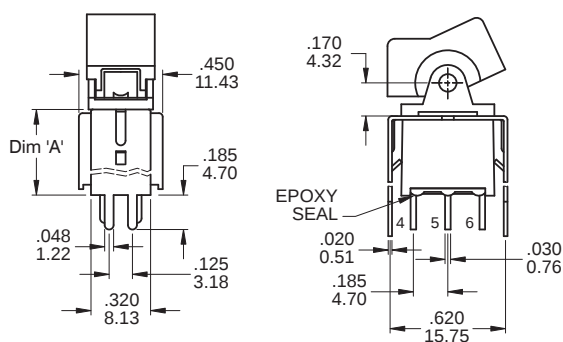


SPDT

Model name. 3AS1J102VS2QES

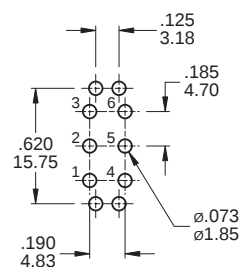
VS2 / VS3

(V2N - Snap-in)



OPTION CODE	DIM. 'A'
VS2 (V2N)	.460 11.68
VS3	.630 16.00

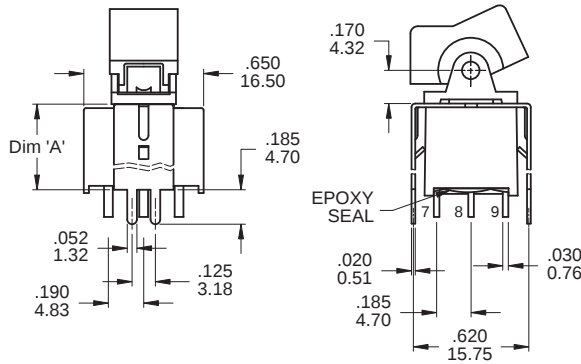
PCB MOUNTING



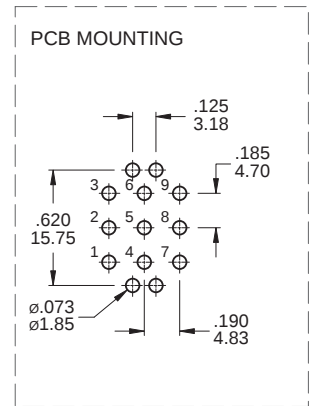
DPDT

Model name. 3AD1J102VS2OES

VS2 - VS3
(V2N - Snap-in)



OPTION CODE	DIM. 'A'
VS2 (V2N)	.460 11.68
VS3	.630 16.00

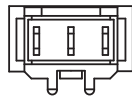
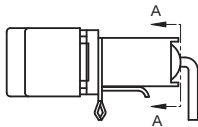


3PDT

Model name. 3A31J102VS2RES

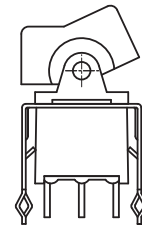
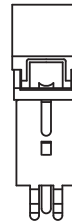
▼ TERMINAL OPTIONS

M6N



SECTION A-A

V2N



Note: The terminal type of M6N are not suitable for 3PDT.

▼ CONTACT & TERMINAL PLATING OPTIONS

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

▼ SOLDERING PROCESS

MANUAL SOLDERING: Use 30 watts soldering iron and controlled the temperature at 350°.

Duration of solder immersion: Max. 5 sec.

WAVE SOLDERING: Recommend soldering temperature: 260 ± 5°C

Duration of solder immersion: Max. 5 sec. (PCB thickness is 1.6mm)