



SPECIFICATIONS

CONTACT RATING: Dependent upon contact material

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

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

INSULATION RESISTANCE: 1,000MΩ min.

DIELECTRIC STRENGTH: 1,000 V RMS@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.

FRAME-Spring steel, black std.

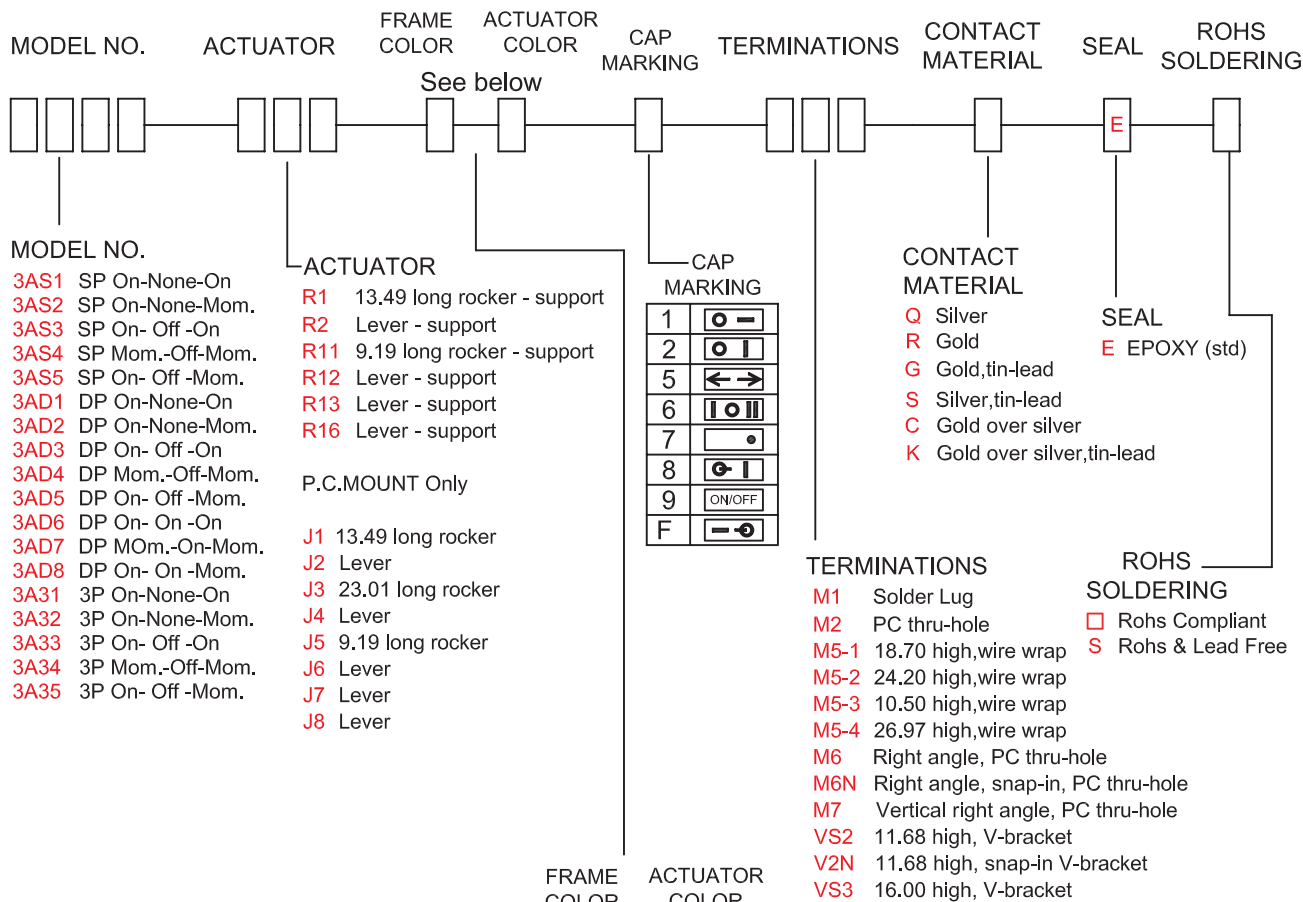
SWITCH SUPPORT-Brass or steel, tin plated.

ACTUATOR PIVOT & MOUNTING BRACKET -Nylon.

ACTUATOR PIVOT RETAINER -Stainless steel.

TERMINALS/CONTACTS -Silver or gold plated copper alloy. (See Page 68)

HOW TO ORDER



See below

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

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		N/A	2-1
	Q13A12	3AS2	ON	NONE	MOM		OPEN	
	Q13A13	3AS3	ON	OFF	ON			
	Q13A14	3AS4	MOM	OFF	MOM			
	Q13A15	3AS5	ON	OFF	MOM			
DP ▲ ▲	Q13A21	3AD1	ON	NONE	ON		N/A	2-1,5-4
	Q13A22	3AD2	ON	NONE	MOM		OPEN	
	Q13A23	3AD3	ON	OFF	ON			
	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		N/A	2-1,5-4,8-7
	Q13A32	3A32	ON	NONE	MOM		OPEN	
	Q13A33	3A33	ON	OFF	ON			
	Q13A34	3A34	MOM	OFF	MOM			
	Q13A35	3A35	ON	OFF	MOM			

MOM=MOMENTARY

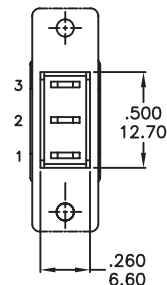
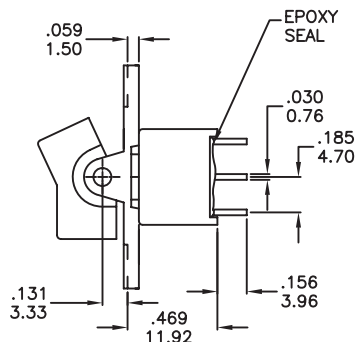
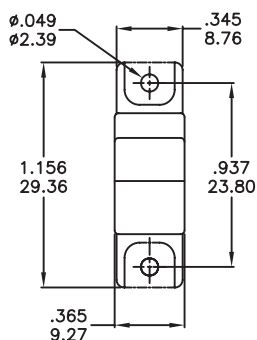
▲ Please check the availability in advance before order

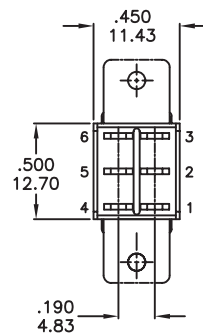
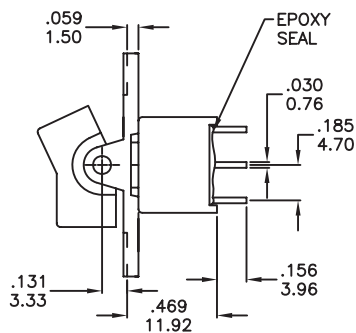
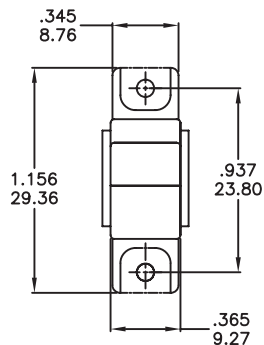
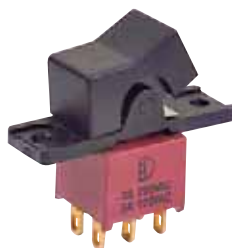
POLE OPTIONS



SPDT

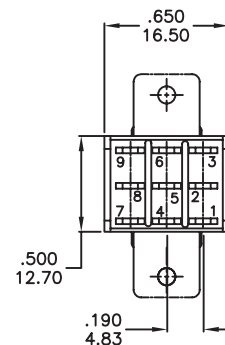
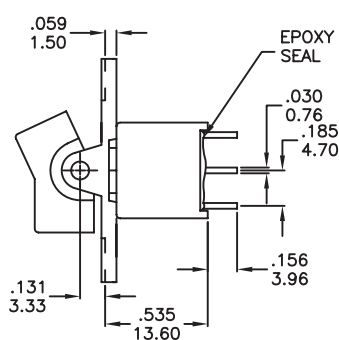
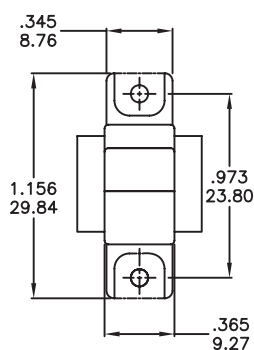
Part No. Shown : 3AS1R12M1RE





DPDT

Part No. Shown : 3AD1R12M1RE

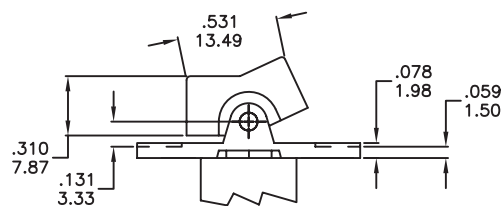
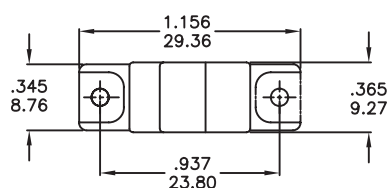
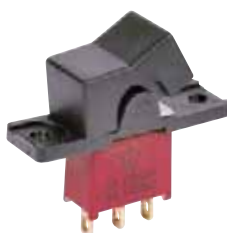


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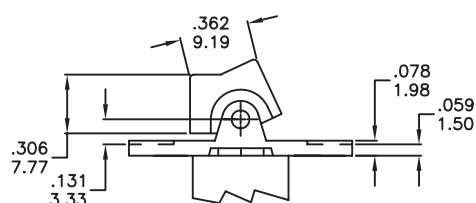
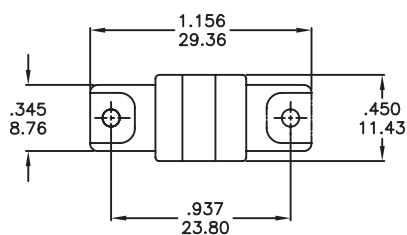
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ACTUATOR OPTIONS FOR PANEL MOUNT ONLY

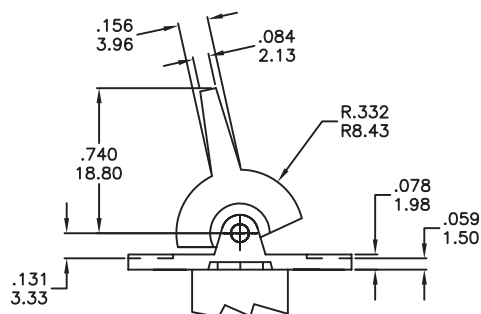
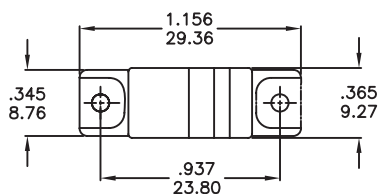
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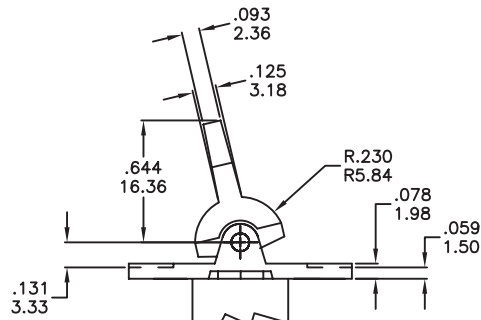
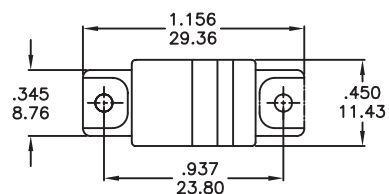
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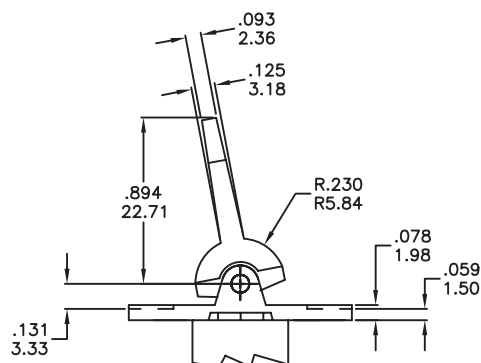
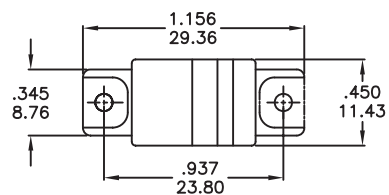
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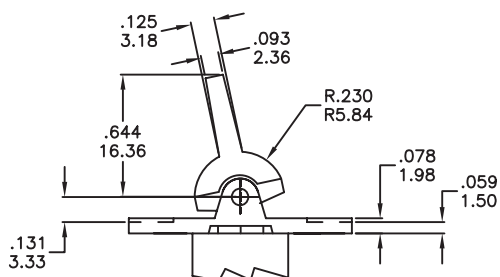
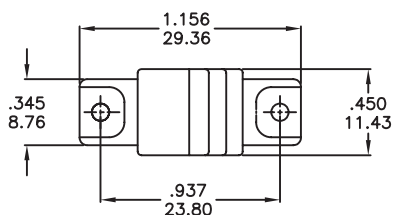
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R13

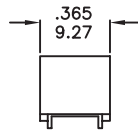
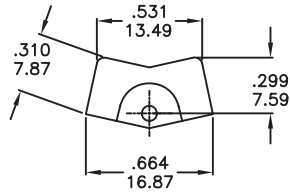


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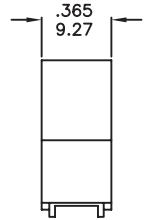
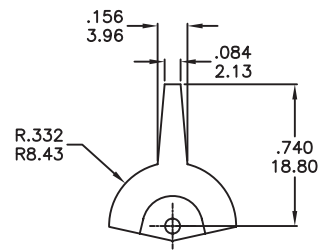


ACTUATOR OPTIONS FOR P.C. MOUNT ONLY

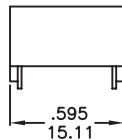
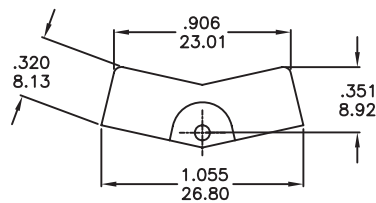
J1



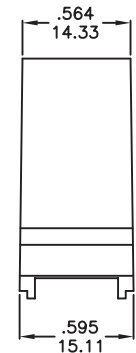
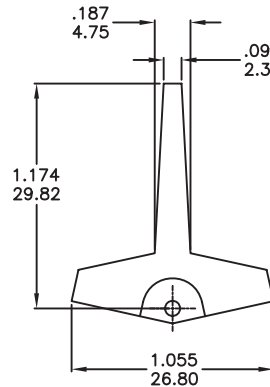
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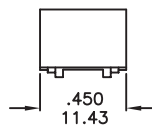
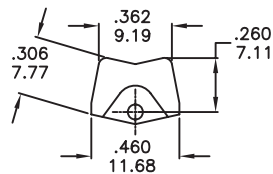
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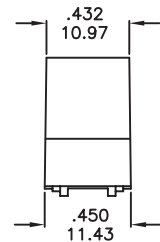
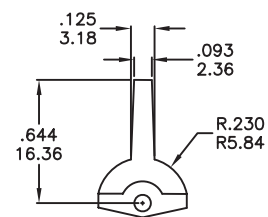
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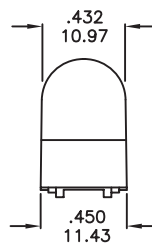
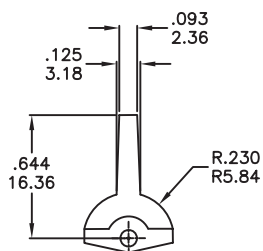
J5



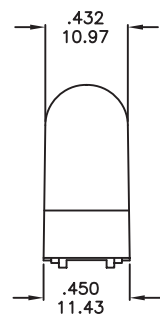
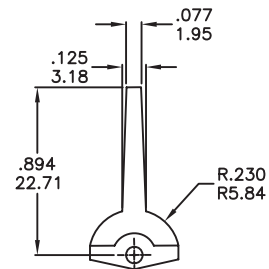
J6



J7



J8

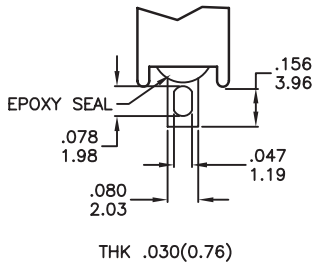


Actuator colors:

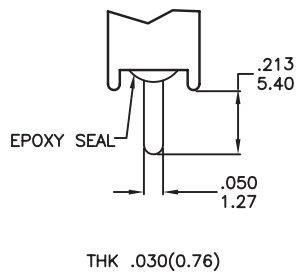
ITEM NO	COLOR
1	White
2	Black (Std)
3	Red
4	Orange
5	Yellow
6	Green
7	Blue
8	Brown
9	Gray

TERMINATION OPTIONS

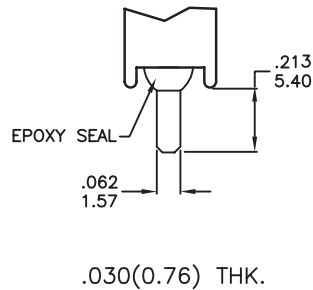
M1 SOLDER LUG



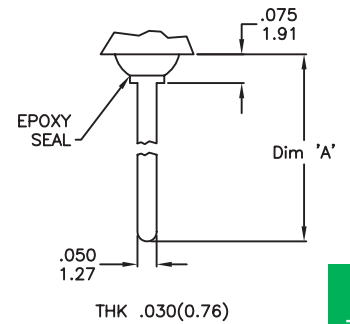
M2 PC THRU-HOLE



M3 QUICK CONNECT



M5 WIRE WRAP



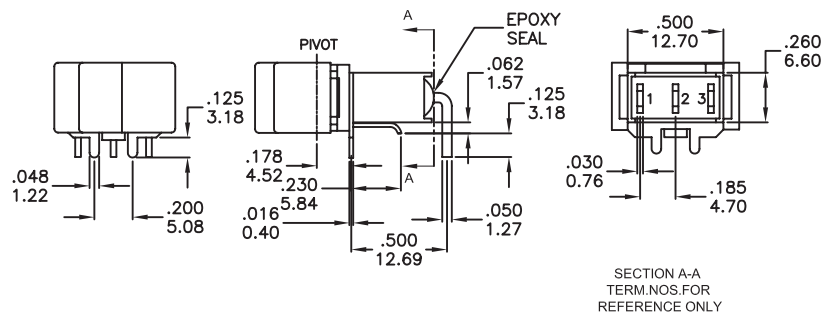
OTHER TERMINATION OPTIONS

- M6 RIGHT ANGLE P.C. MOUNT
- M7 RIGHT ANGLE P.C. MOUNT
- VS2 VERTICAL BRACKET P.C. MOUNT
- VS3 VERTICAL BRACKET P.C. MOUNT

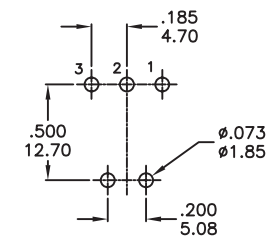
RE Mating Quick Connector
Amp P/N 60900-1

OPTION CODE	DIM. 'A'
M5-1	.737(18.70)
M5-2	.953(24.20)
M5-3	.415(10.55)
M5-4	1.062(26.97)

M6



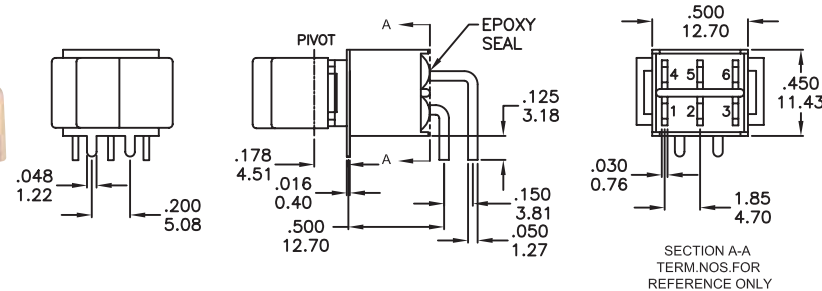
P.C. MOUNTING



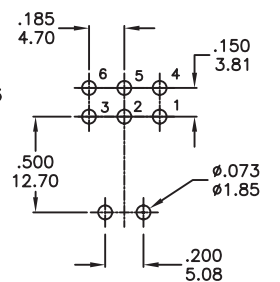
SPDT

Part No. Shown : 3AS1J12M6RE

M6



P.C. MOUNTING

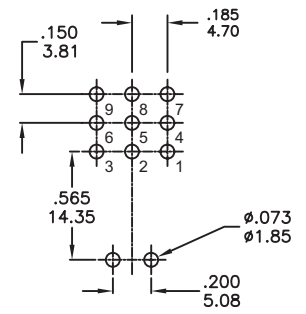
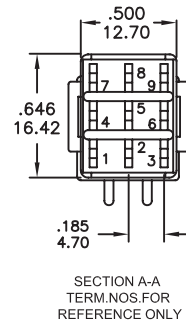
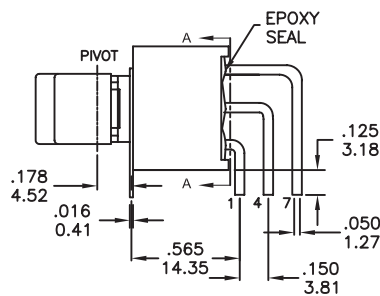
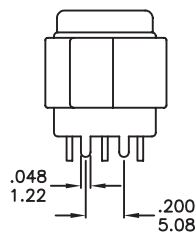
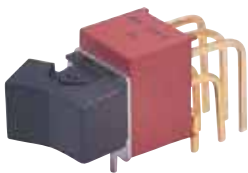


DPDT

Part No. Shown : 3AD1J12M6RE

M6

P.C. MOUNTING



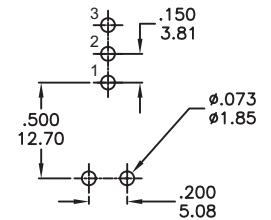
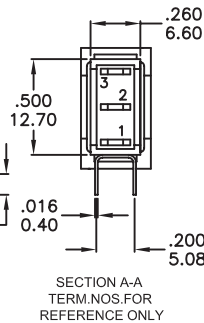
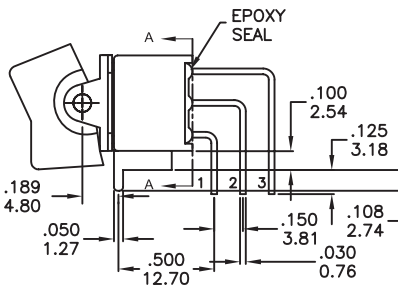
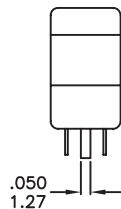
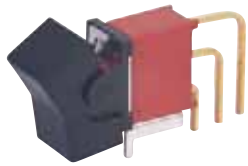
3PDT

Part No. Shown : 3A31J12M6RE

SECTION A-A
TERM.NOS.FOR
REFERENCE ONLY

M7

P.C. MOUNTING



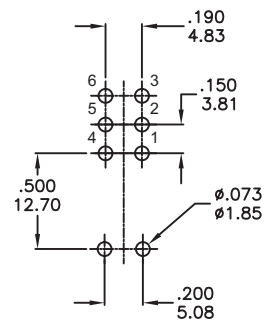
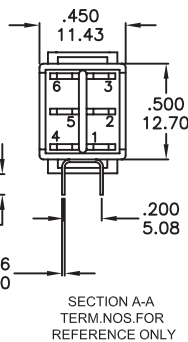
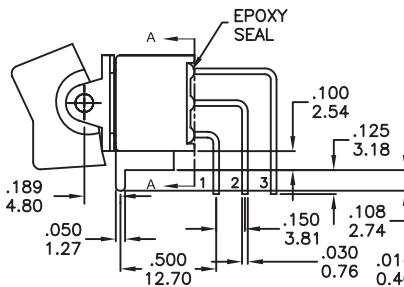
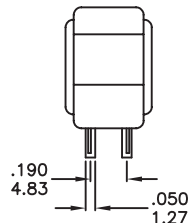
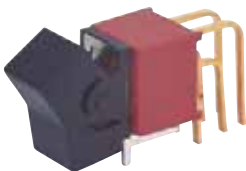
SPDT

Part No. Shown : 3AS1J12M7RE

SECTION A-A
TERM.NOS.FOR
REFERENCE ONLY

M7

P.C. MOUNTING



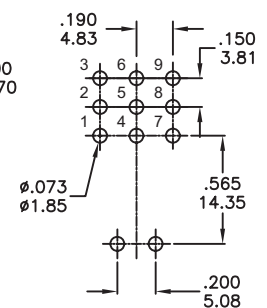
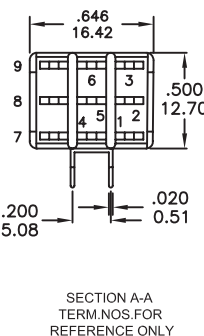
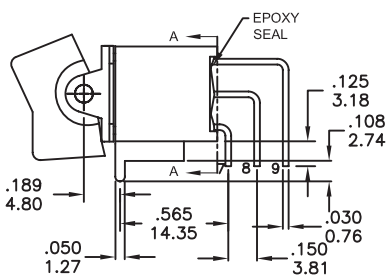
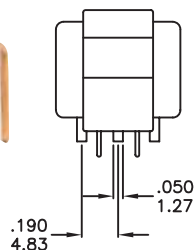
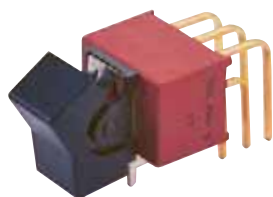
DPDT

Part No. Shown : 3AD1J12M7RE

SECTION A-A
TERM.NOS.FOR
REFERENCE ONLY

M7

P.C. MOUNTING



3PDT

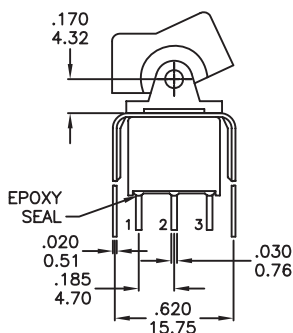
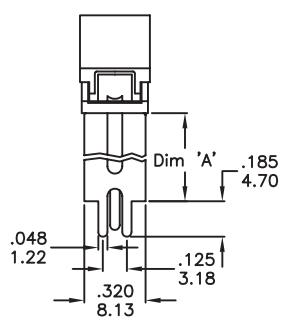
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SECTION A-A
TERM.NOS.FOR
REFERENCE ONLY

VS2-VS3

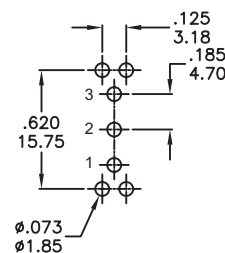


SPDT



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

P.C. MOUNTING

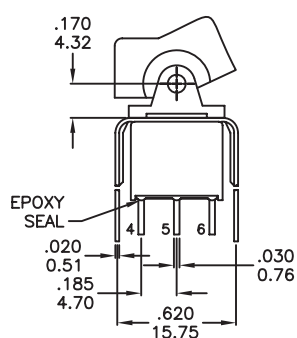
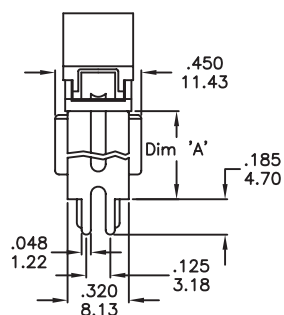


Part No. Shown : 3AS1J12VS2RE

VS2-VS3

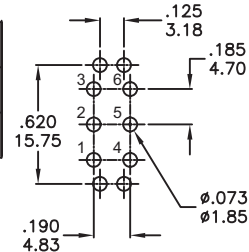


DPDT



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

P.C. MOUNTING

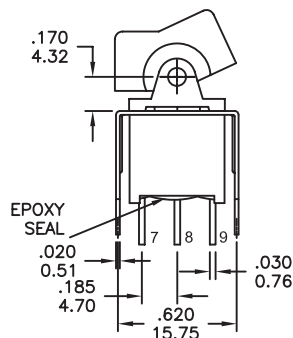
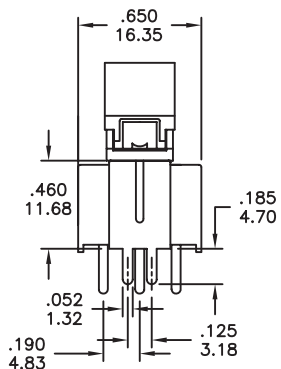


Part No. Shown : 3AD1J12VS2RE

VS2-VS3

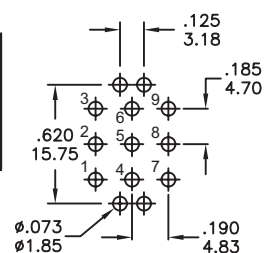


3PDT



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

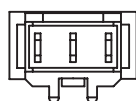
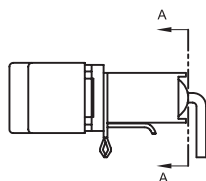
P.C. MOUNTING



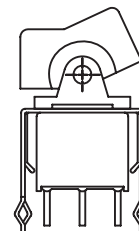
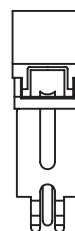
Part No. Shown : 3A31J12VS2RE

SNAP-IN TERMINATION OPTIONS

M6N



V2N



CONTACT MATERIAL OPTIONS

	CONTACT MATERIAL	TERMINATION RATING	RATINGS
Q	Silver	Q = Gold flash over silver	5 Amps with resistant load @ 120VAC or 28VDC 2 Amps with resistant load @ 250VAC
S		S = Gold flash over silver,pure - tin	
C	Gold over Silver	C = Gold over silver	
K		K = Gold over silver,pure - tin	
R	Gold	R = Gold	0.4 Volt-Amps(VA)max. @ 20V max. (AC or DC)
G		G = Gold,pure - tin	



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

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:260±5°C
Duration of Solder Immersion: 5 ±1 seconds
(PCB is 1.6mm in thickness)

SOLDERING : Vapor phase

Temperature Profile

Zone	Room temperature	Time (Sec)
Pre-heat (A)	150°C	Min 120s
Soak (B)	180°C~200°C	Min 150s
Peak (C)	200°C~235°C	Min 30s
Peak (D)	235°C~260°C	Min 40s
Peak (E)	260°C	Max 10s

