

SPECIFICATIONS

CONTACT RATING: Dependent upon contact material.

MECHANICAL LIFE: 40,000 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.

TERMINAL/CONTACT: Silver or gold plated copper alloy. (See Page 68)

HOW TO ORDER

MODEL NO. ACTUATOR FRAME COLOR ACTUATOR COLOR CAP MARKING TERMINATIONS CONTACT MATERIAL SEAL ROHS SOLDERING

See below

MODEL NO.	ACTUATOR	FRAME COLOR	ACTUATOR COLOR	CAP MARKING	TERMINATIONS	CONTACT MATERIAL	SEAL	ROHS SOLDERING
3AS1 SP On-None-On	R1 13.49 long rocker - support			1	M1 Solder Lug	Q Silver	E EPOXY (std)	
3AS2 SP On-None-Mom	R2 Lever - support			2	M2 PC thru-hole	R Gold		
3AS3 SP On-Off-On	R11 9.19 long rocker - support			5	M5-1 18.70 high, wire wrap	G Gold, pure-tin		
3AS4 SP Mom-Off-Mom	R12 Lever - support			6	M5-2 24.20 high, wire wrap	S Silver, pure-tin		
3AS5 SP On-Off-Mom	R13 Lever - support			7	M5-3 10.55 high, wire wrap	C Gold over silver		
3AD1 DP On-None-On	R16 Lever - support			8	M5-4 26.97 high, wire wrap	K Gold over silver, pure-tin		
3AD2 DP On-None-Mom				9	M6 Right angle, PC thru-hole			
3AD3 DP On-Off-On				F	M6N Right angle, snap-in, PC thru-hole			
3AD4 DP Mom-Off-Mom	P.C. MOUNT ONLY				M7 Vertical right angle, PC thru-hole			
3AD5 DP On-Off-Mom					VS2 11.68 high, V-bracket			
3AD6 DP On-On-On	J1 13.49 long rocker				V2N 11.68 high, snap-in V-bracket			
3AD7 DP Mom-On-Mom	J2 Lever				VS3 16.00 high, V-bracket			
3AD8 DP On-On-Mom	J3 23.01 long rocker							
3A31 3P On-None-On	J4 Lever							
3A32 3P On-None-Mom	J5 9.19 long rocker							
3A33 3P On-Off-On	J6 Lever							
3A34 3P Mom-Off-Mom.	J7 Lever							
3A35 3P On-Off-Mom	J8 Lever							

FRAME COLOR ACTUATOR COLOR

See below

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

TERMINATIONS

M1	Solder Lug
M2	PC thru-hole
M5-1	18.70 high, wire wrap
M5-2	24.20 high, wire wrap
M5-3	10.55 high, wire wrap
M5-4	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

<input type="checkbox"/>	Rohs Compliant
S	Rohs & Lead Free
F	Halogen Free+RoHS +REACH

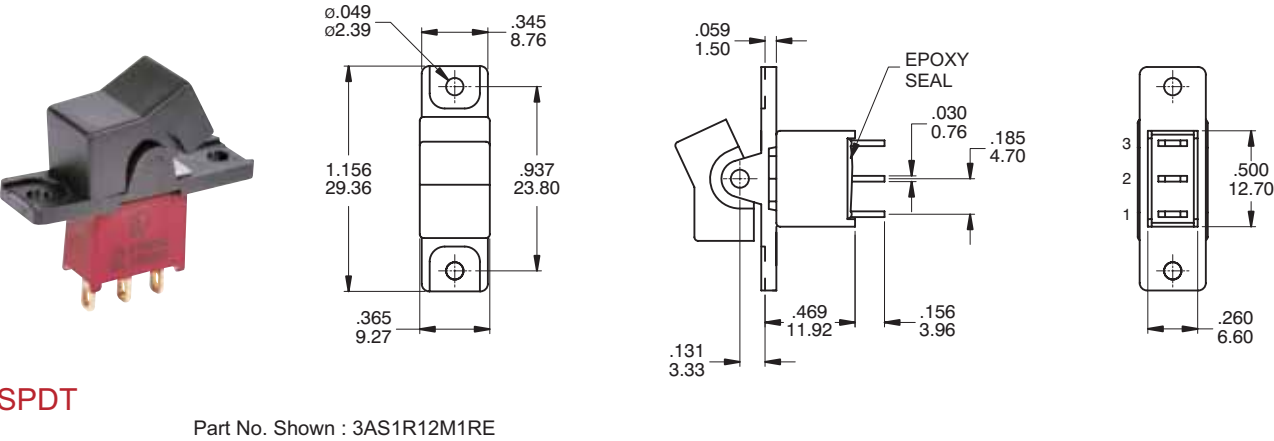
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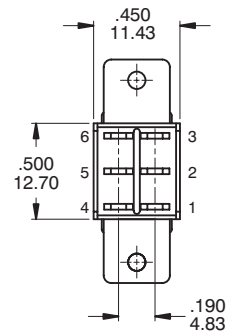
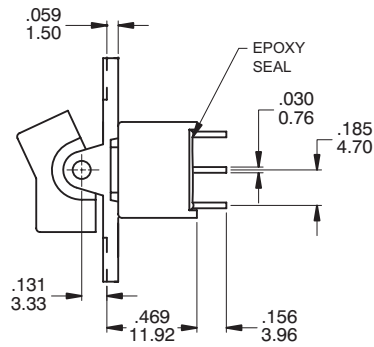
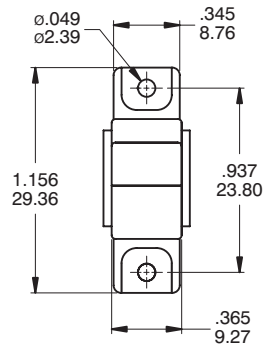
NO. POLES	UL/CSA MODEL NO.	MODEL NO.	SWITCH FUNCTION			CONNECTED TERMINALS / SCHEMATIC		
			POS.1	POS.2	POS.3	POS.1	POS.2	POS.3
SP	Q13A11	3AS1	ON	NONE	ON		N/A	
	Q13A12	3AS2	ON	NONE	MOM			
	Q13A13	3AS3	ON	OFF	ON			
	Q13A14	3AS4	MOM	OFF	MOM		OPEN	
	Q13A15	3AS5	ON	OFF	MOM			
DP	Q13A21	3AD1	ON	NONE	ON		N/A	
	Q13A22	3AD2	ON	NONE	MOM			
	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		2-3,5-4	
	▲ Q13A28	3AD8	ON	ON	MOM			
3P	Q13A31	3A31	ON	NONE	ON		N/A	
	Q13A32	3A32	ON	NONE	MOM			
	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

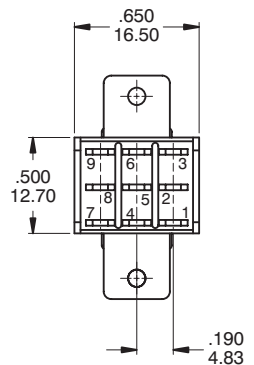
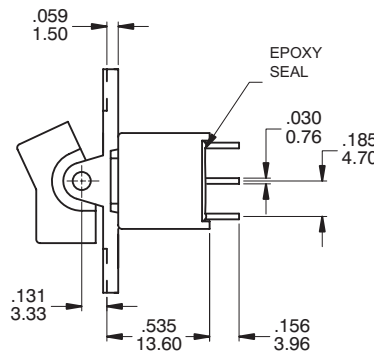
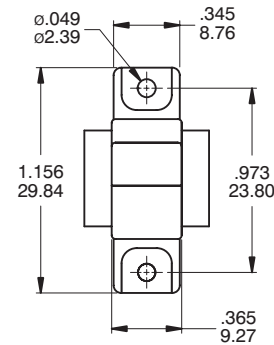
POLE OPTIONS





DPDT

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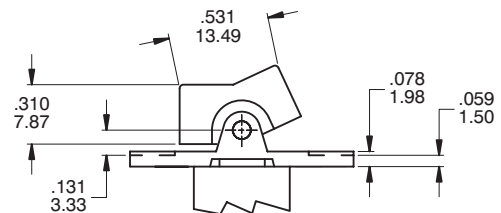
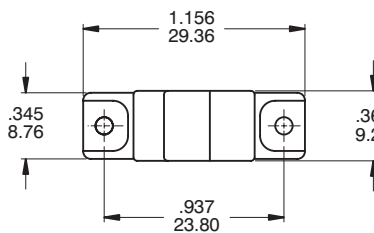


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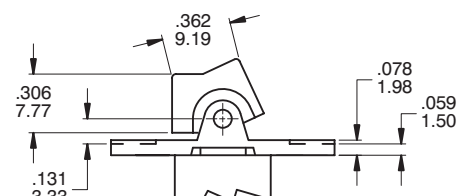
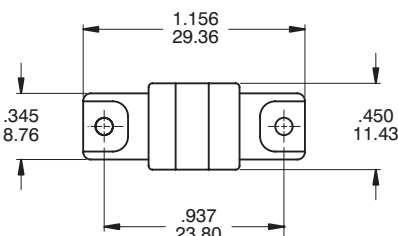
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ACTUATOR OPTIONS FOR PANEL MOUNT ONLY

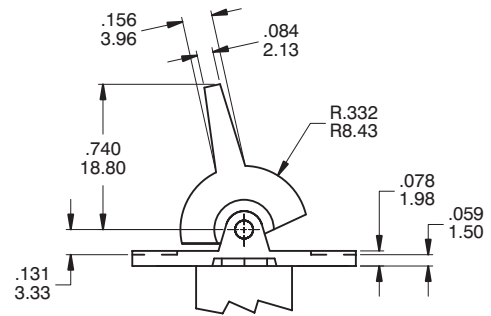
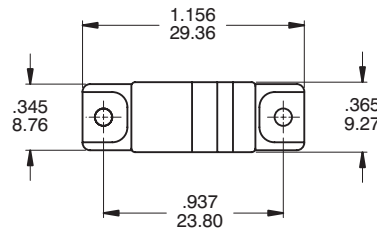
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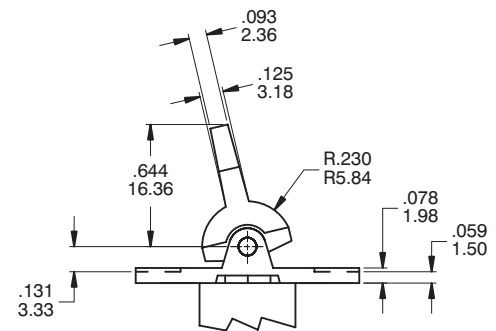
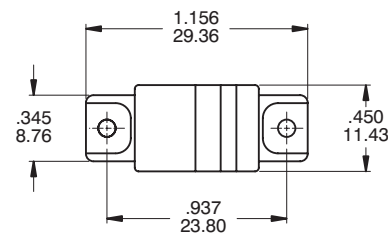
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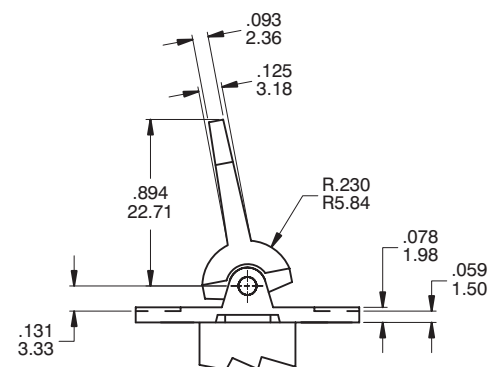
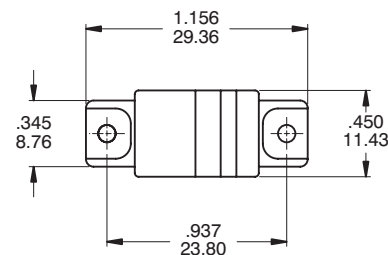
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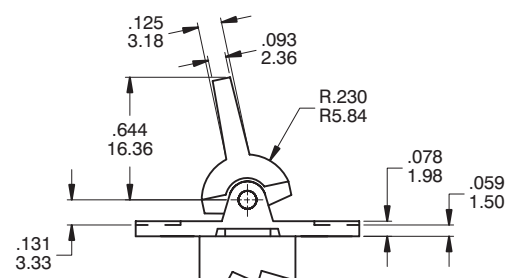
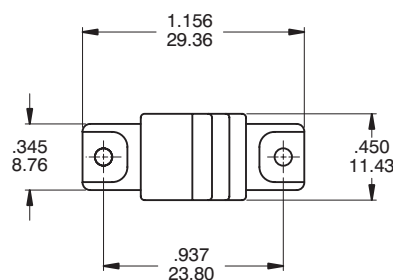
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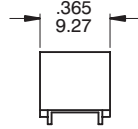
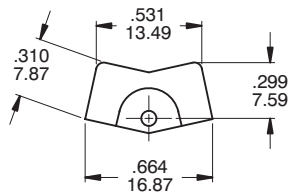


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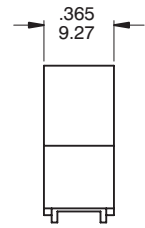
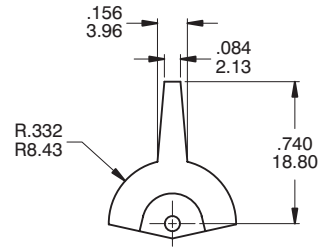


ACTUATOR OPTIONS FOR P.C. MOUNT ONLY

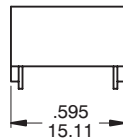
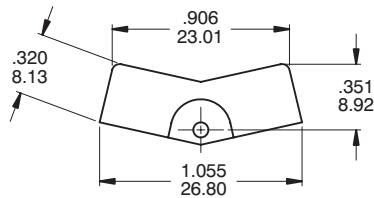
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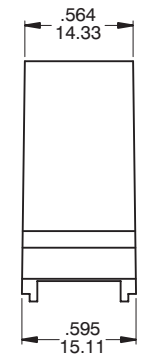
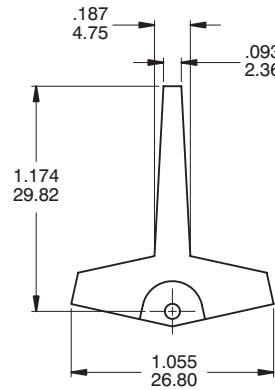
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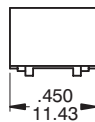
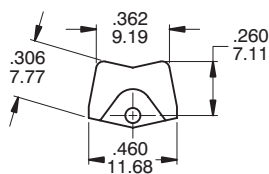
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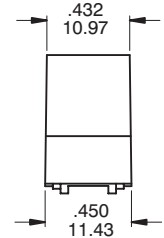
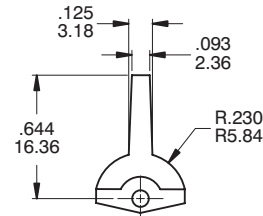
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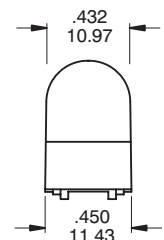
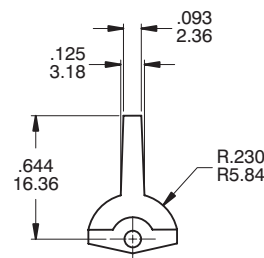
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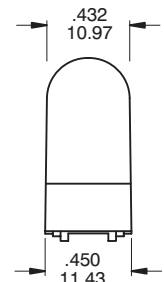
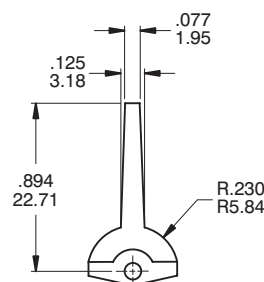
J6



J7



J8

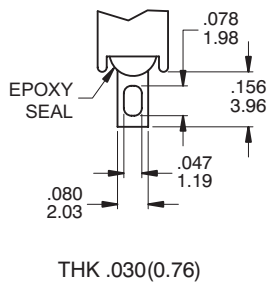


Actuator colors:

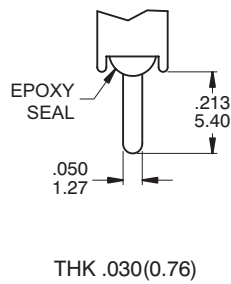
ITEM NO	COLOR
1	White
2	Black (Std)
3	Red
4	Orange
5	Yellow
6	Green
7	Blue
8	Brown
9	Gray

TERMINATION OPTIONS

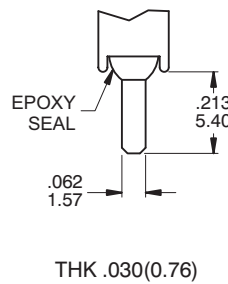
M1 SOLDER LUG



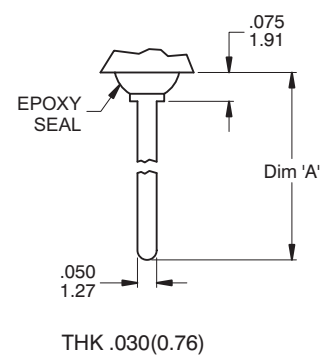
M2 PC THRU-HOLE



M3 QUICK CONNECT



M5 WIRE WRAP



OTHER TERMINATION OPTIONS

M6 RIGHT ANGLE P.C. MOUNT

M7 RIGHT ANGLE P.C. MOUNT

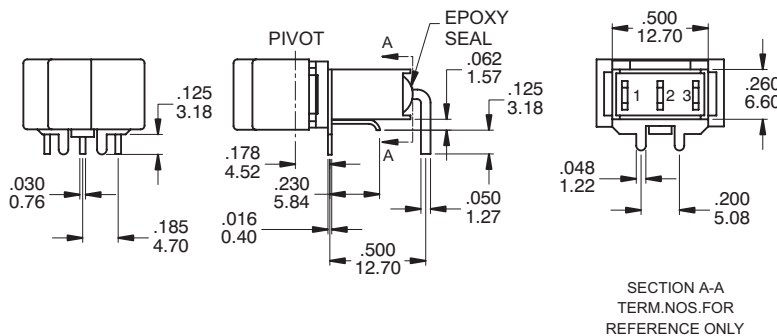
VS2 VERTICAL BRACKET P.C. MOUNT

VS3 VERTICAL BRACKET P.C. MOUNT

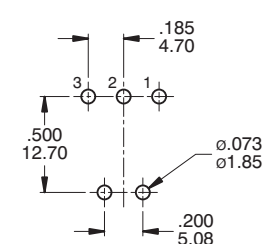
RE Mating Quick Connector
Amp P/N 60900-1

OPTION CODE	DIM. 'A'
M5-1	.736 (18.70)
M5-2	.953 (24.20)
M5-3	.415 (10.55)
M5-4	1.062 (26.97)

M7



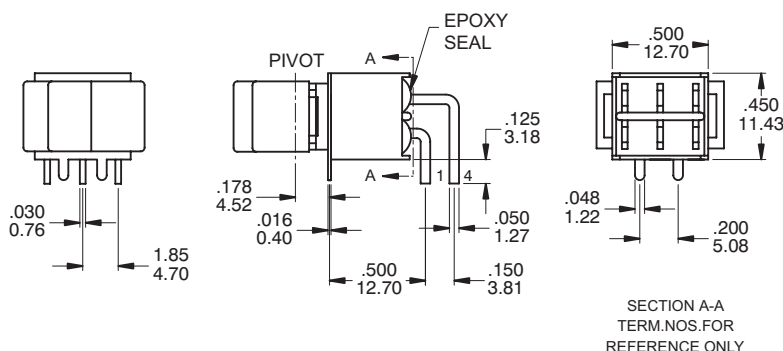
P.C. MOUNTING



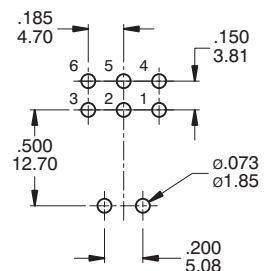
SPDT

Part No. Shown : 3AS1J12M6RE

M7



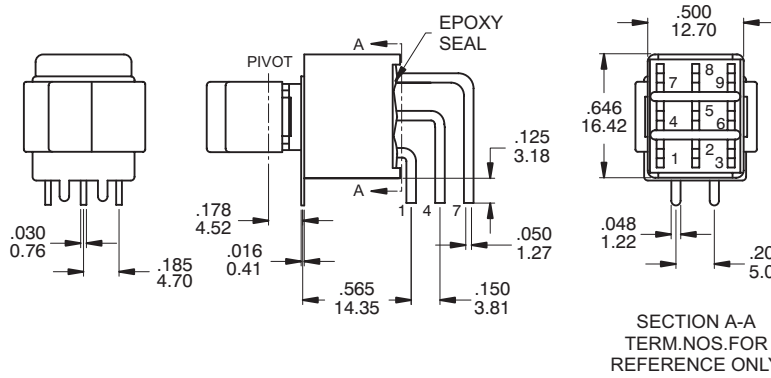
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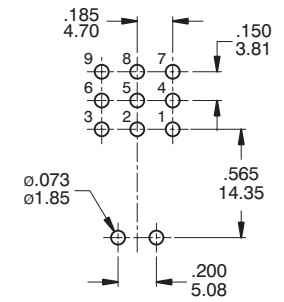
DPDT

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M6



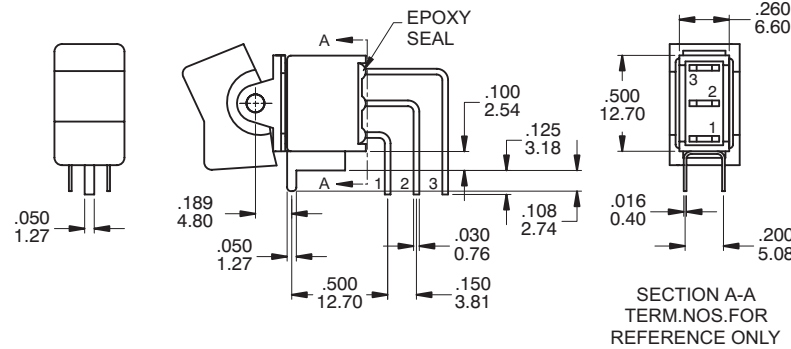
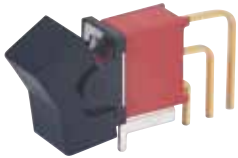
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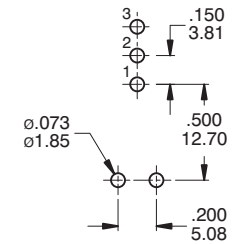
3PDT

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M7



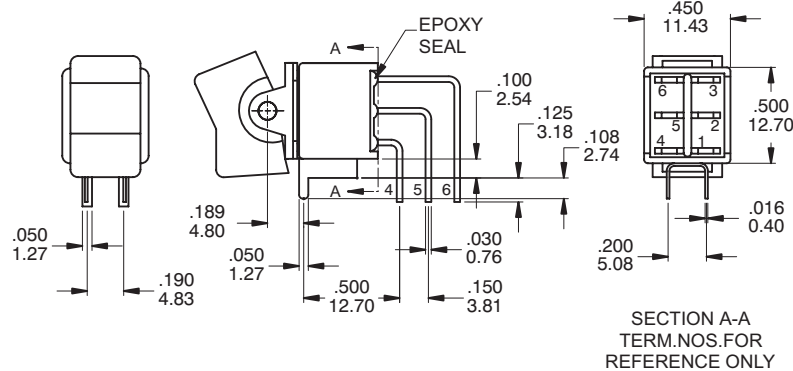
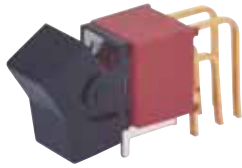
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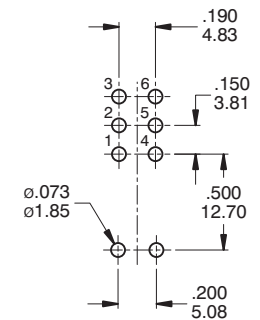
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M7



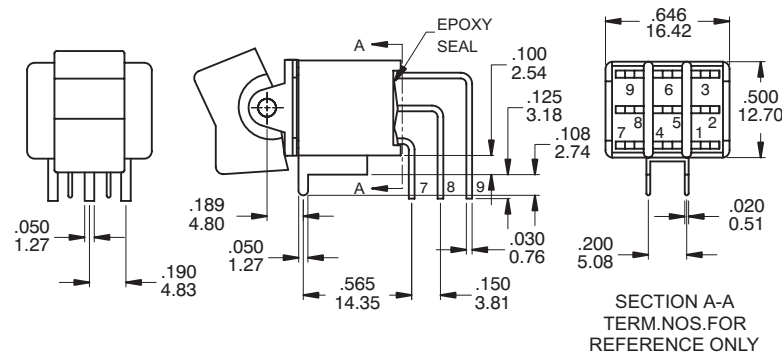
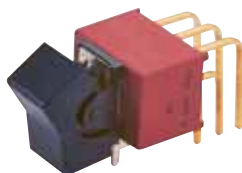
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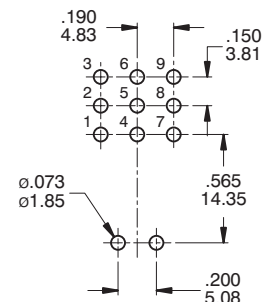
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M7



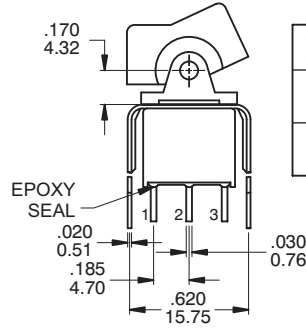
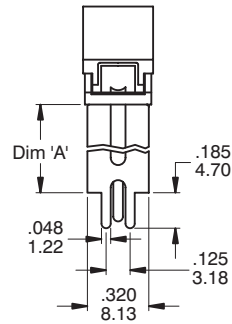
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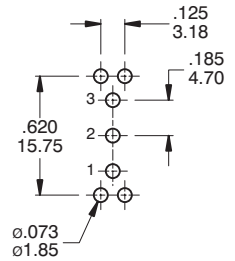
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VS2 - VS3



OPTION CODE	DIM. 'A'
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VS3	.630 16.00

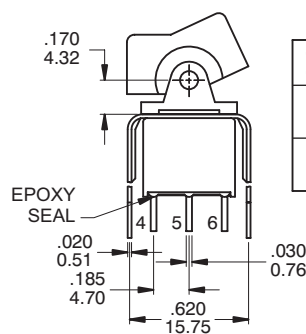
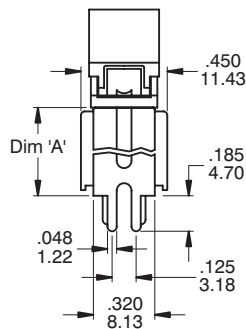
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SPDT

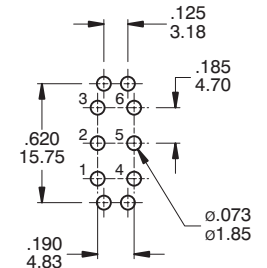
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VS2 - VS3



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VS3	.630 16.00

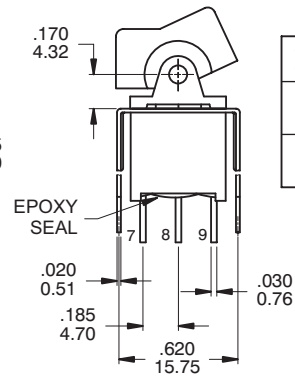
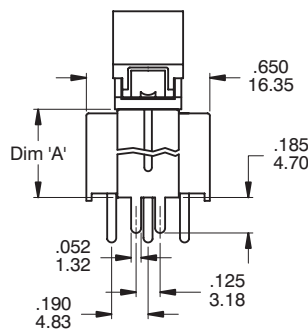
P.C. MOUNTING



DPDT

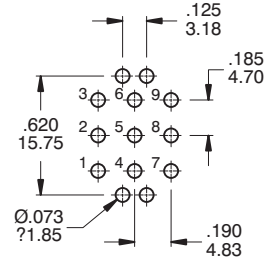
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VS2 - VS3



OPTION CODE	DIM. 'A'
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VS3	.630 16.00

P.C. MOUNTING

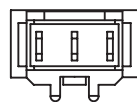
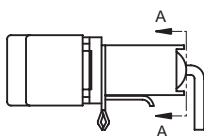


3PDT

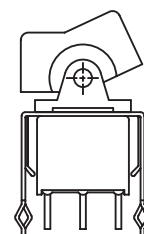
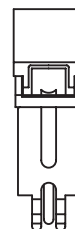
Part No. Shown : 3A31J12VS2RE

SNAP-IN TERMINATION OPTIONS

M6N



V2N



CONTACT MATERIAL OPTIONS

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

