



SPECIFICATIONS

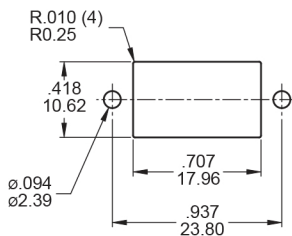
- CONTACT RATING:** Dependent upon contact material
- MECHANICAL LIFE:** 40,000 make-and-break cycles.
- CONTACT RESISTANCE:** 10 mΩ max. initial @ 2-4VDC
100mA for both silver and gold plated contacts.
- INSULATION RESISTANCE:** 1,000 MΩ min.
- DIELECTRIC STRENGTH:** 1,000 Vrms min.@sea level.
- OPERATING TEMPERATURE:** -30°C to 85°C.

MATERIALS

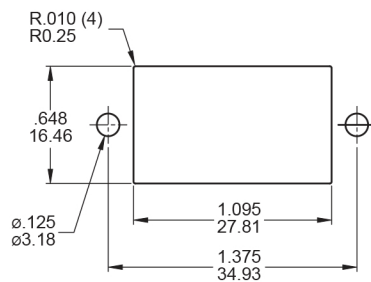
- CASE:** Diallyl phthalate (DAP) (UL94v-0).
- ACTUATOR:** Nylon,black std.
- BUSHING:** Brass or Zinc,nickel plated.
- HOUSING:** Stainless Steel.
- SWITCH SUPPORT:** Brass,tin plated or stainless steel.
- TERMINAL/CONTACT:** Copper alloy,with silver or gold plated.

PANEL MOUNTING

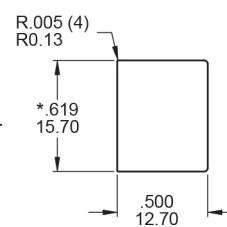
For R1-R2



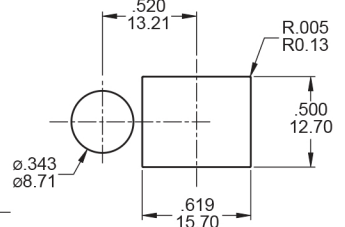
For R3-R4



For R6-R9



For R17-R18



* For R6 and R7: Increase this dim. to .620/.625(15,75/15,88) for .060/.125 (1,52/3,18) thk. panels.

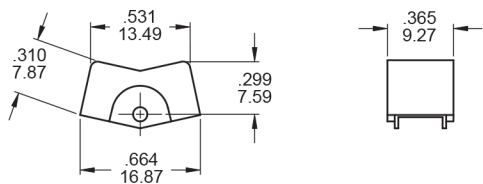
* For R8 and R9: Increase this dim. to .620/.625(15,75/15,88) for .091/.125 (2,31/3,18) thk. panels.

ACTUATOR OPTIONS FOR P.C. MOUNT ONLY

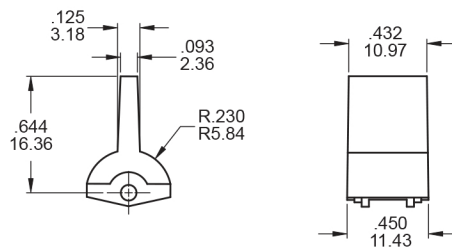


3M
Rocker Switches

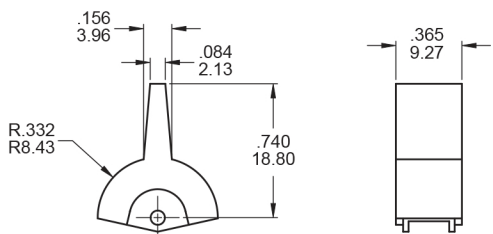
J1



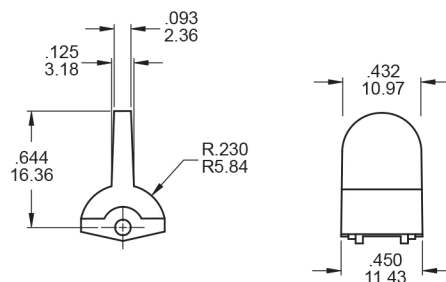
J6



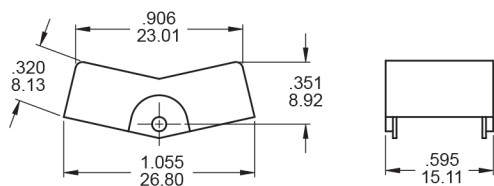
J2



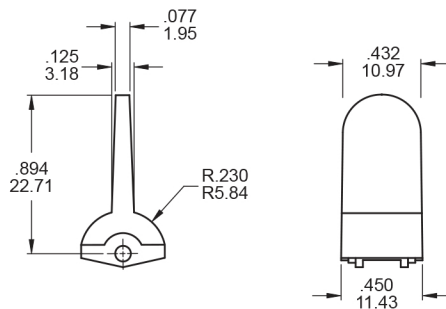
J7



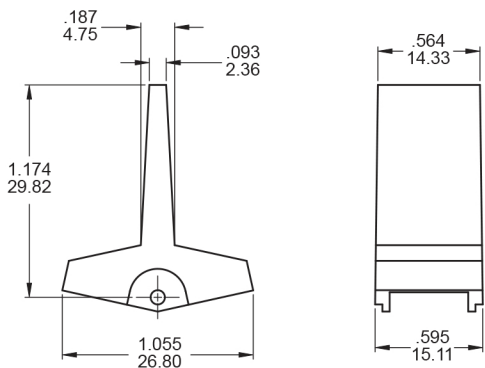
J3



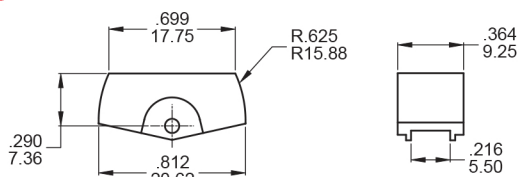
J8



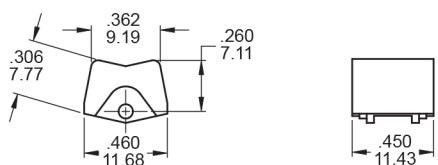
J4



JB



J5



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	Q1311	3MS1	ON	NONE	ON		N/A				
	Q1312	3MS2	ON	NONE	MOM						
	Q1313	3MS3	ON	OFF	ON						
	Q1314	3MS4	MOM	OFF	MOM					OPEN	
	Q1315	3MS5	ON	OFF	MOM						
DP ▲ ▲	Q1321	3MD1	ON	NONE	ON		N/A				
	Q1322	3MD2	ON	NONE	MOM						
	Q1323	3MD3	ON	OFF	ON						
	Q1324	3MD4	MOM	OFF	MOM					OPEN	
	Q1325	3MD5	ON	OFF	MOM						
	Q1326	3MD6	ON	ON	ON						
	Q1327	3MD7	MOM	ON	MOM				2-3,5-6	2-3,5-4	2-1,5-4
	Q1328	3MD8	ON	ON	MOM						
3P	Q1331	3M31	ON	NONE	ON		N/A				
	Q1332	3M32	ON	NONE	MOM						
	Q1333	3M33	ON	OFF	ON						
	Q1334	3M34	MOM	OFF	MOM					OPEN	
	Q1335	3M35	ON	OFF	MOM						
4P ▲ ▲	Q1341	3M41	ON	NONE	ON		N/A				
	Q1342	3M42	ON	NONE	MOM						
	Q1343	3M43	ON	OFF	ON						
	Q1344	3M44	MOM	OFF	MOM					OPEN	
	Q1345	3M45	ON	OFF	MOM						
	Q1346	3M46	ON	ON	ON						
	Q1347	3M47	MOM	ON	MOM				2-3,5-6,8-9,11-12	2-3,5-4,8-9,11-10	2-1,5-4,8-7,11-10
	Q1348	3M48	ON	ON	MOM						

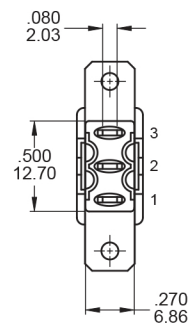
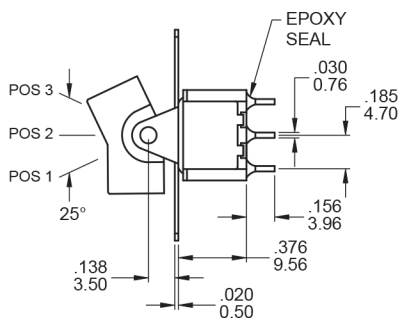
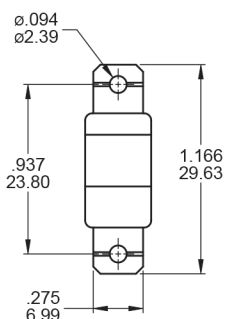
MOM=MOMENTARY

▲ Please check the availability in advance before order

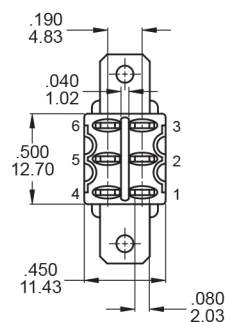
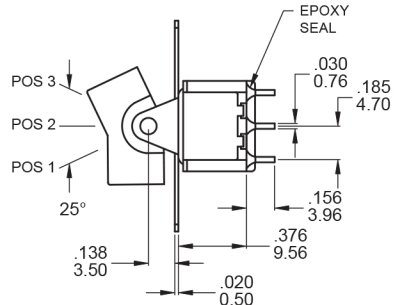
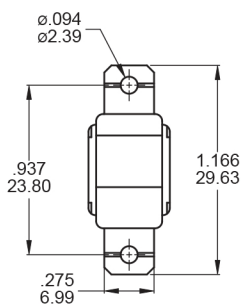
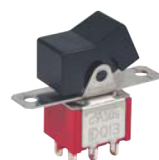


3M
Rocker Switches

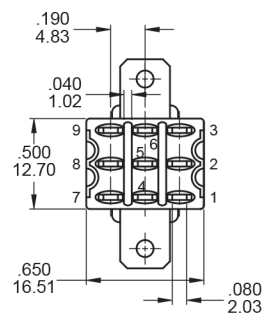
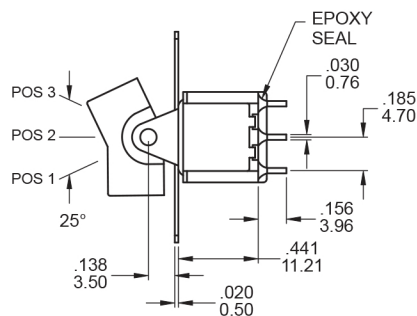
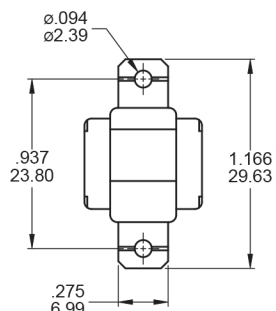
POLE OPTIONS



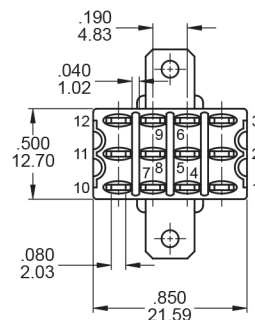
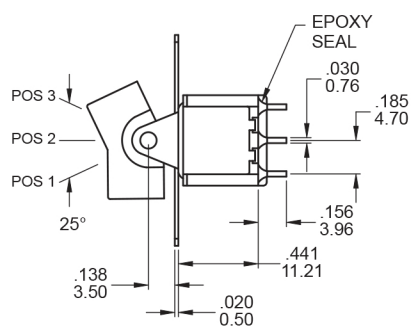
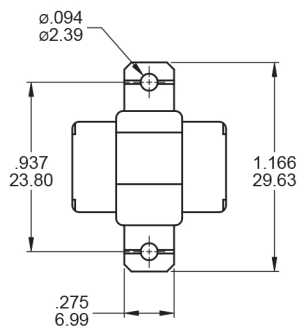
SPDT



DPDT



3PDT

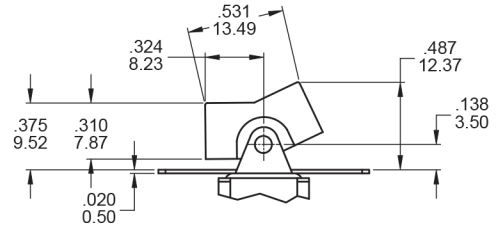
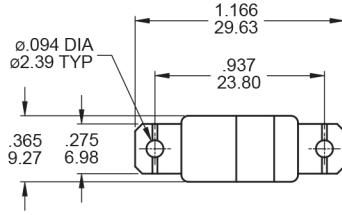


4PDT

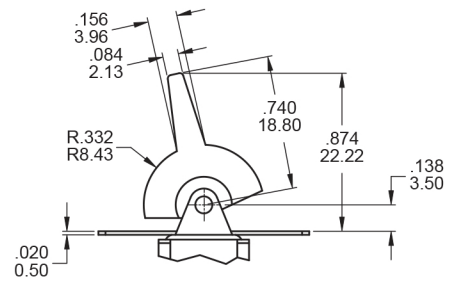
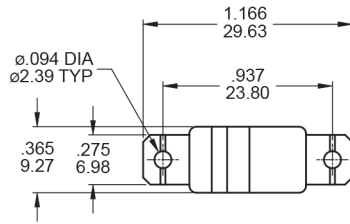


ACTUATOR OPTIONS FOR PANEL MOUNT ONLY

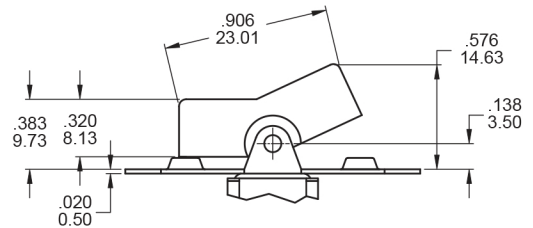
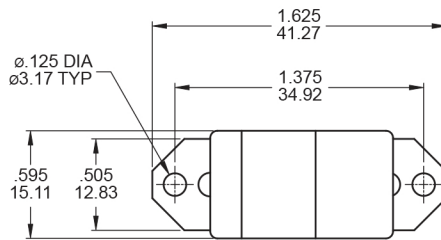
R1



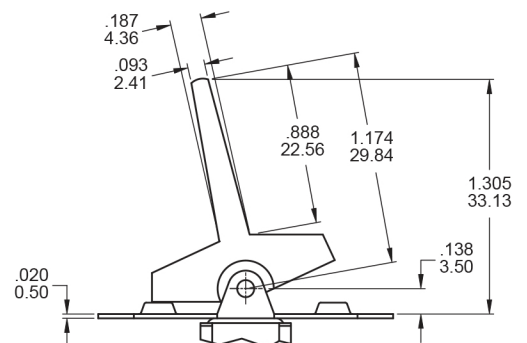
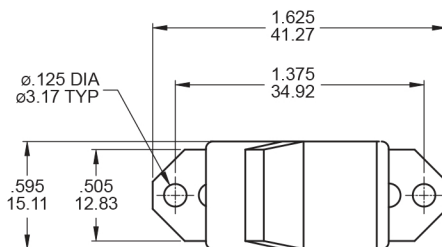
R2



R3



R4

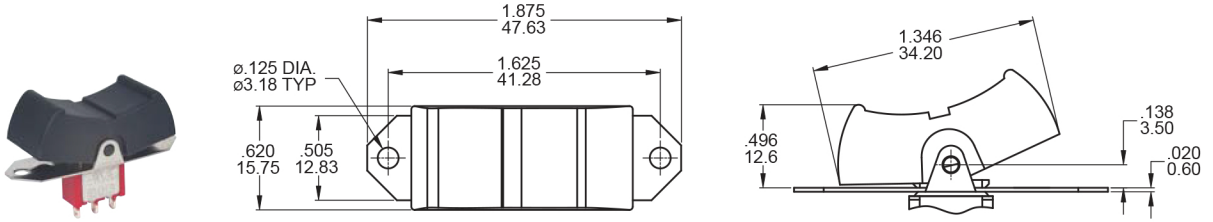


3M
Rocker Switches

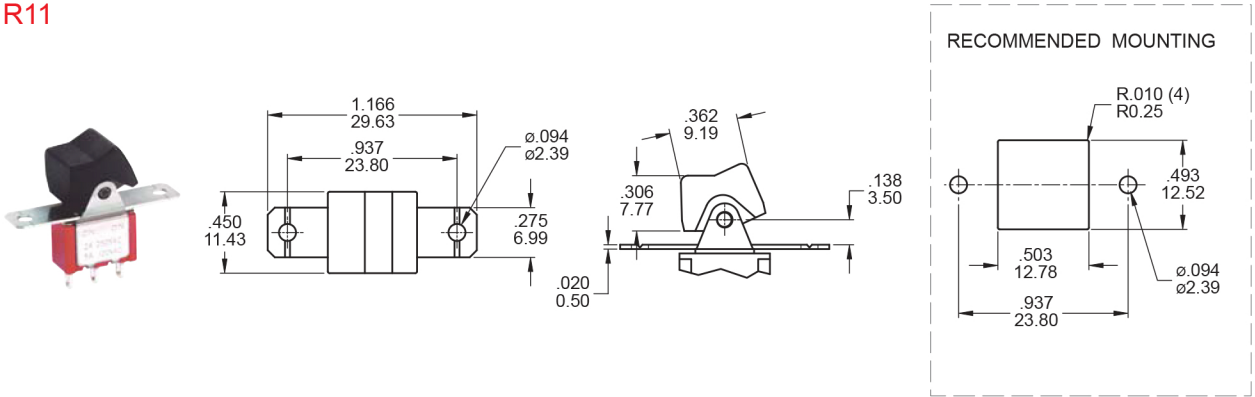
ACTUATOR OPTIONS SNAP-IN FRONT MOUNT



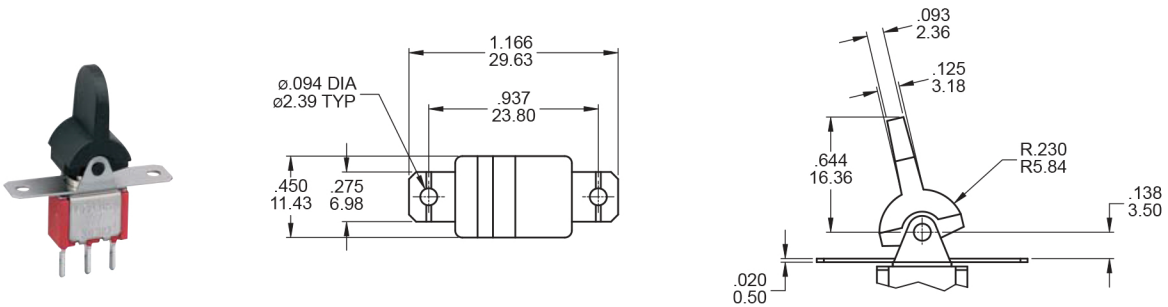
R5



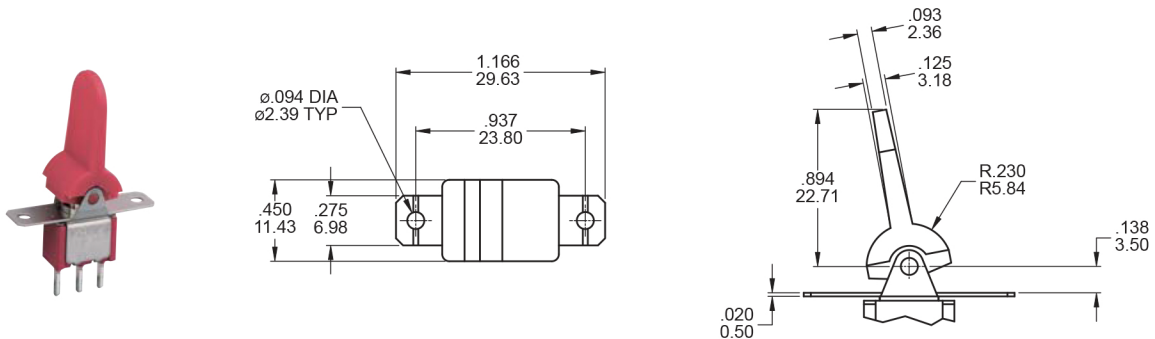
R11



R12



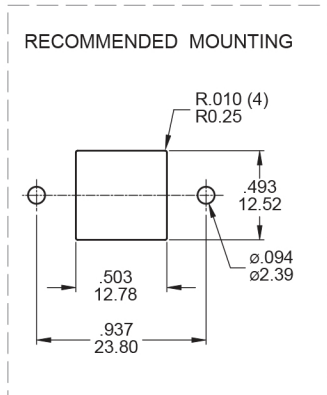
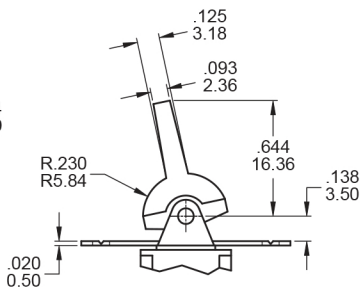
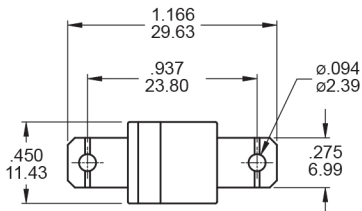
R13



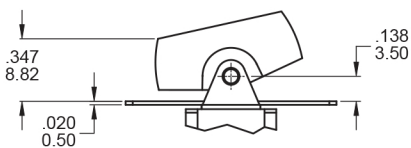
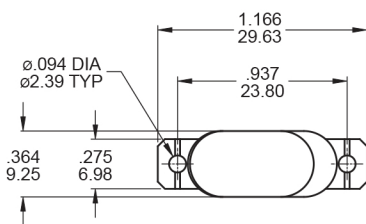


3M
Rocker Switches

R16

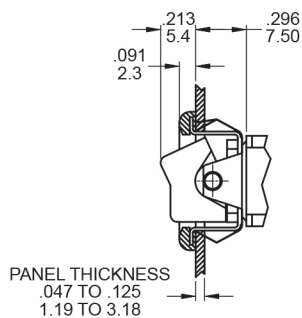
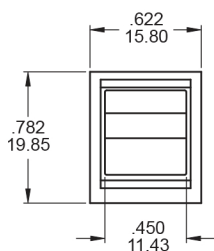


RB

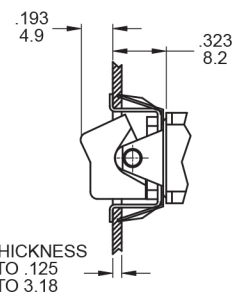


ACTUATOR OPTIONS SNAP-IN FRONT MOUNT

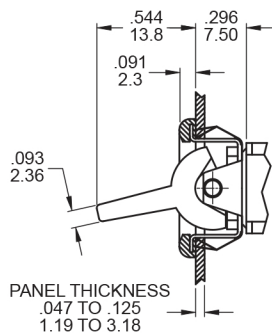
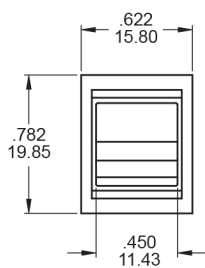
R6



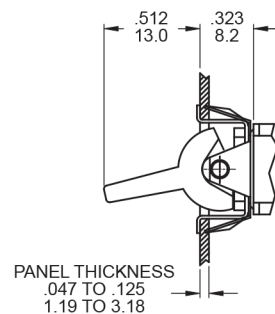
R6K Snap-in



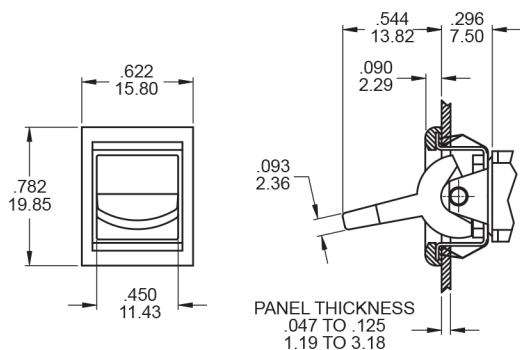
R7



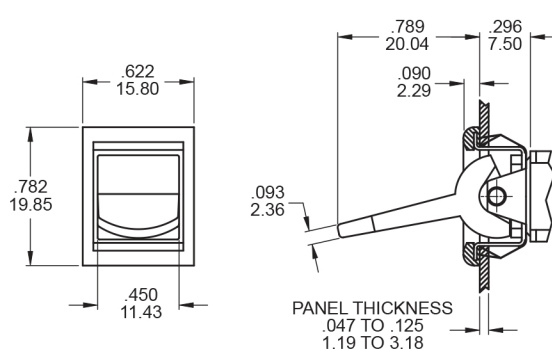
R7K Snap-in



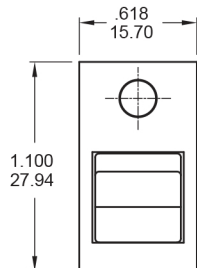
R8



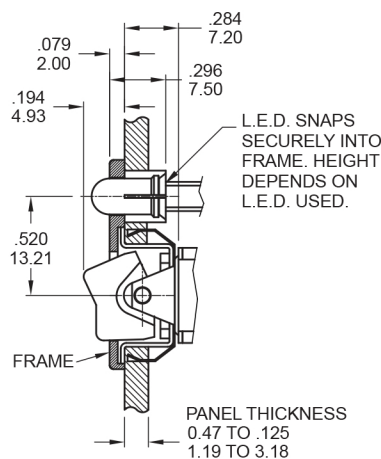
R9



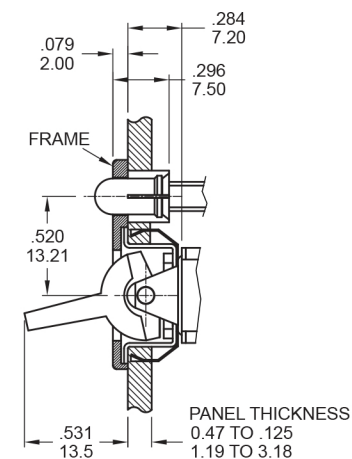
R18



▲ R17

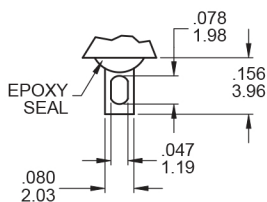


▲ R17



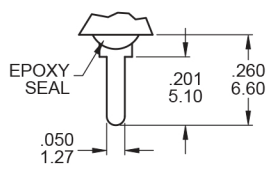
TERMINATION OPTIONS

M1 Solder lug



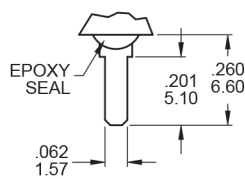
THK .030(0.76)

M2 PC Thru-hole



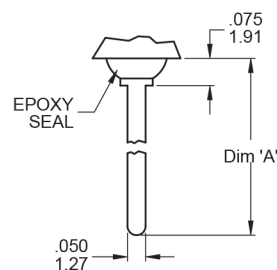
THK .030(0.76)

M3 Quick connect



THK .030(0.76)

M5 Wire Wrap



THK .030(0.76)

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

VS4 Vertical bracket P.C. Mount

VS5 Vertical bracket P.C. Mount

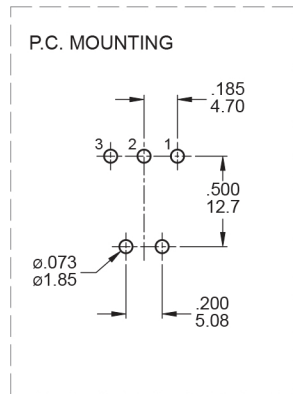
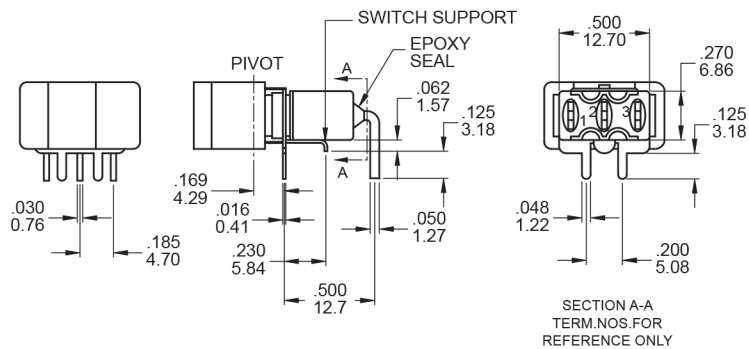
V2N Vertical bracket P.C. Mount with snap-in bracket

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



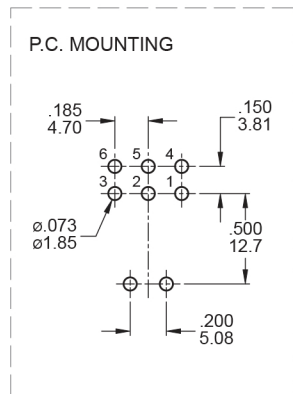
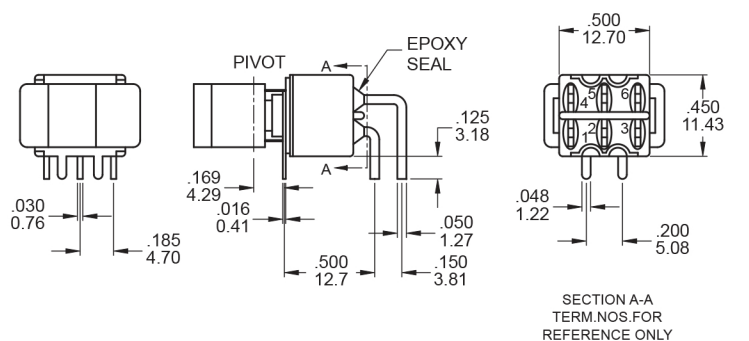
3M
Rocker Switches

M6



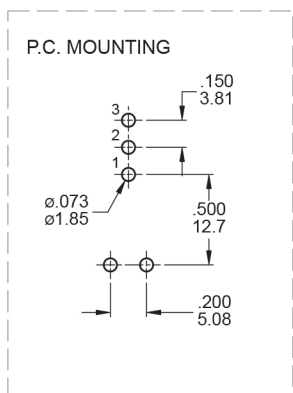
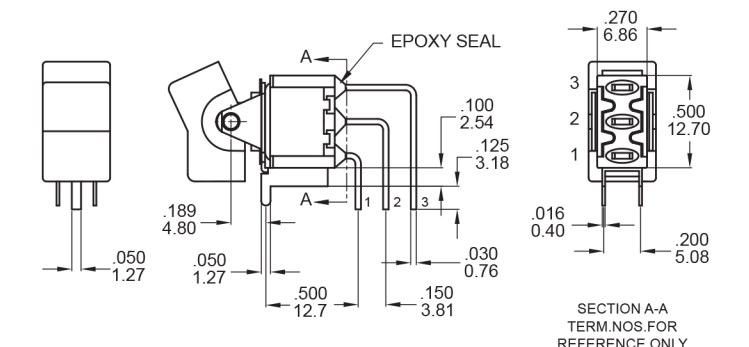
SPDT

M7



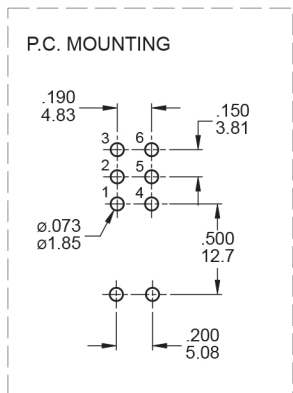
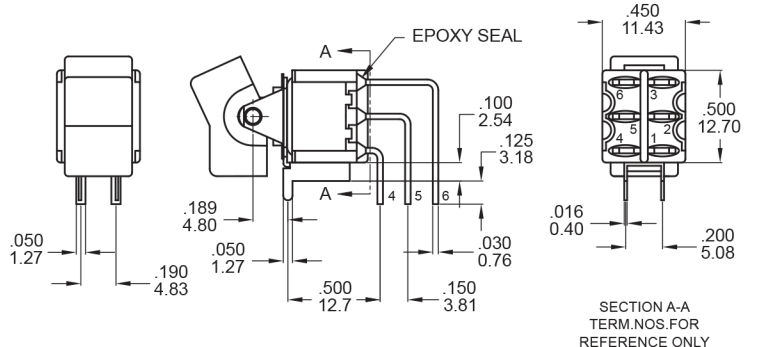
DPDT

M7



SPDT

M7

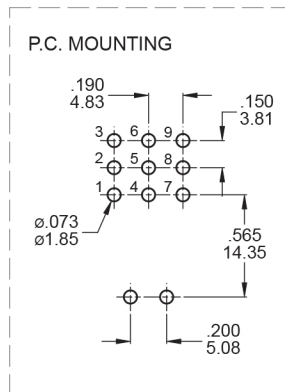
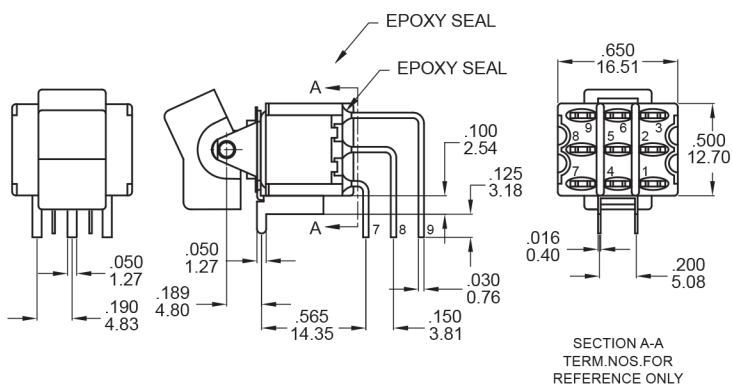


DPDT



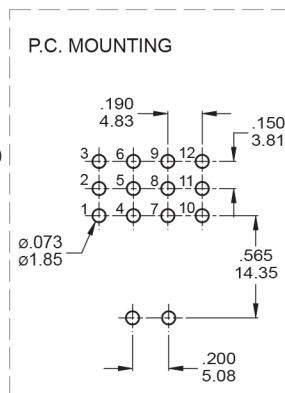
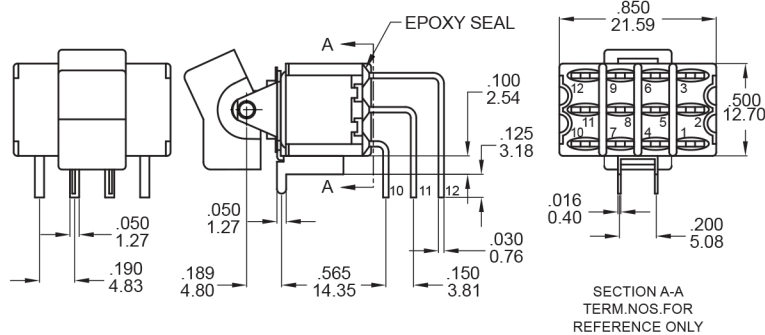


M7



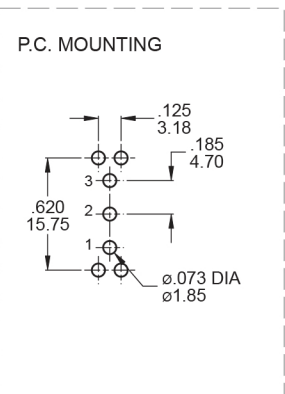
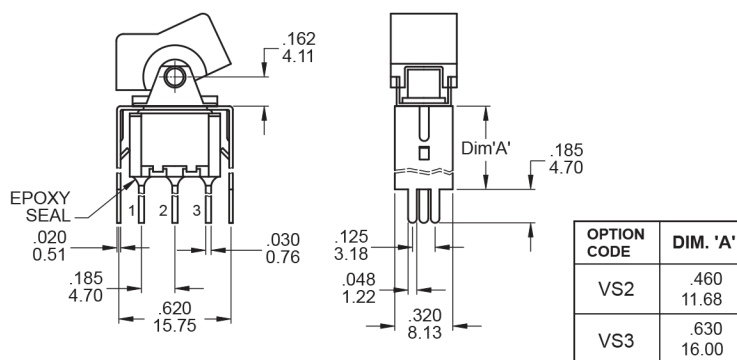
3PDT

M7



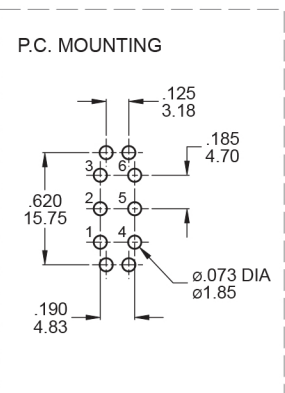
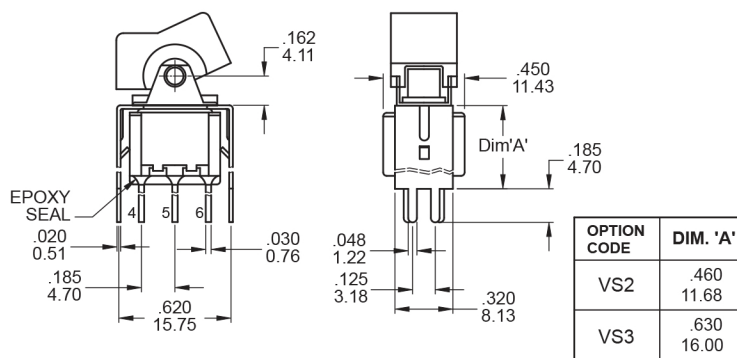
4PDT

VS2 - VS3



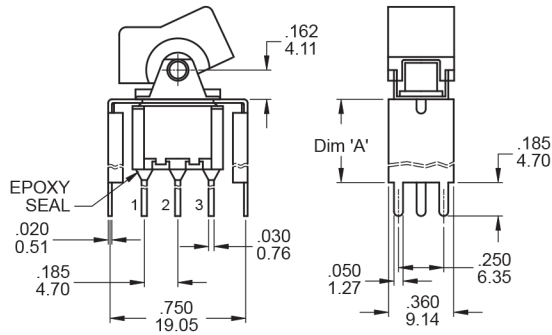
SPDT

VS2 - VS3

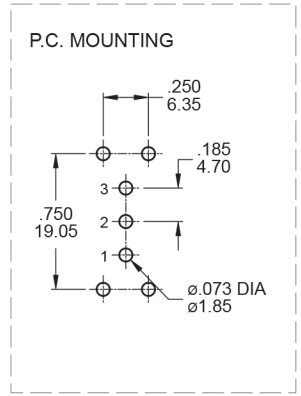


DPDT

VS4 - VS5

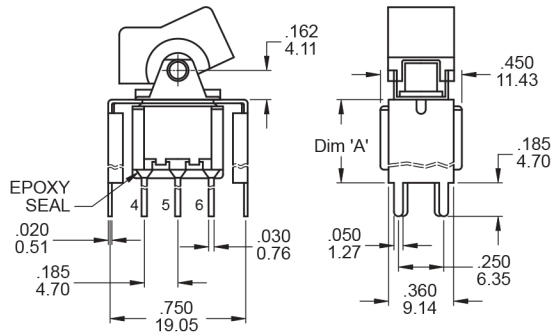


OPTION CODE	DIM. 'A'
VS4	.460 11.68
VS5	.630 16.00

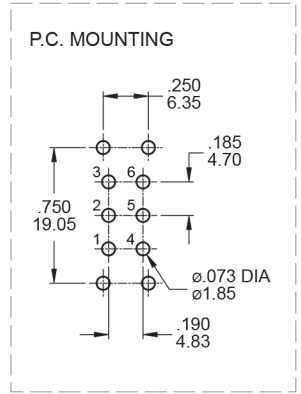


SPDT

VS4 - VS5



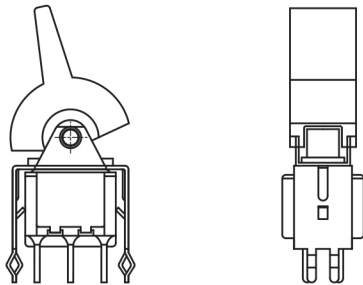
OPTION CODE	DIM. 'A'
VS4	.460 11.68
VS5	.630 16.00



DPDT

SNAP-IN TERMINATION OPTIONS

V2N



CONTACT MATERIAL OPTIONS

	CONTACT PLATING	TERMINAL PLATING	RATINGS
Q	Silver	Q = 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)