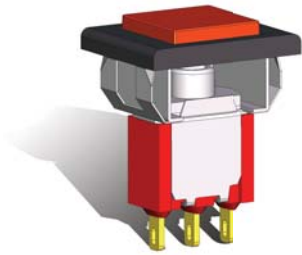


7M Series

Snap-Acting Pushbutton Switches



SPECIFICATIONS

CONTACT RATING: Dependent upon contact material See page 99.

MECHANICAL LIFE: 50,000 make-and-break cycles.

CONTACT RESISTANCE: 20mΩ max. initial @ 2-4VDC
100mA for both silver and gold plated contacts.

INSULATION RESISTANCE: 1,000MΩ min.

DIELECTRIC STRENGTH: 1,000 V RMS@seal level.

OPERATING TEMPERATURE: -30° C to 85° C.

MATERIALS

CASE - Diallyl phthalate (DAP)(UL94V-0).

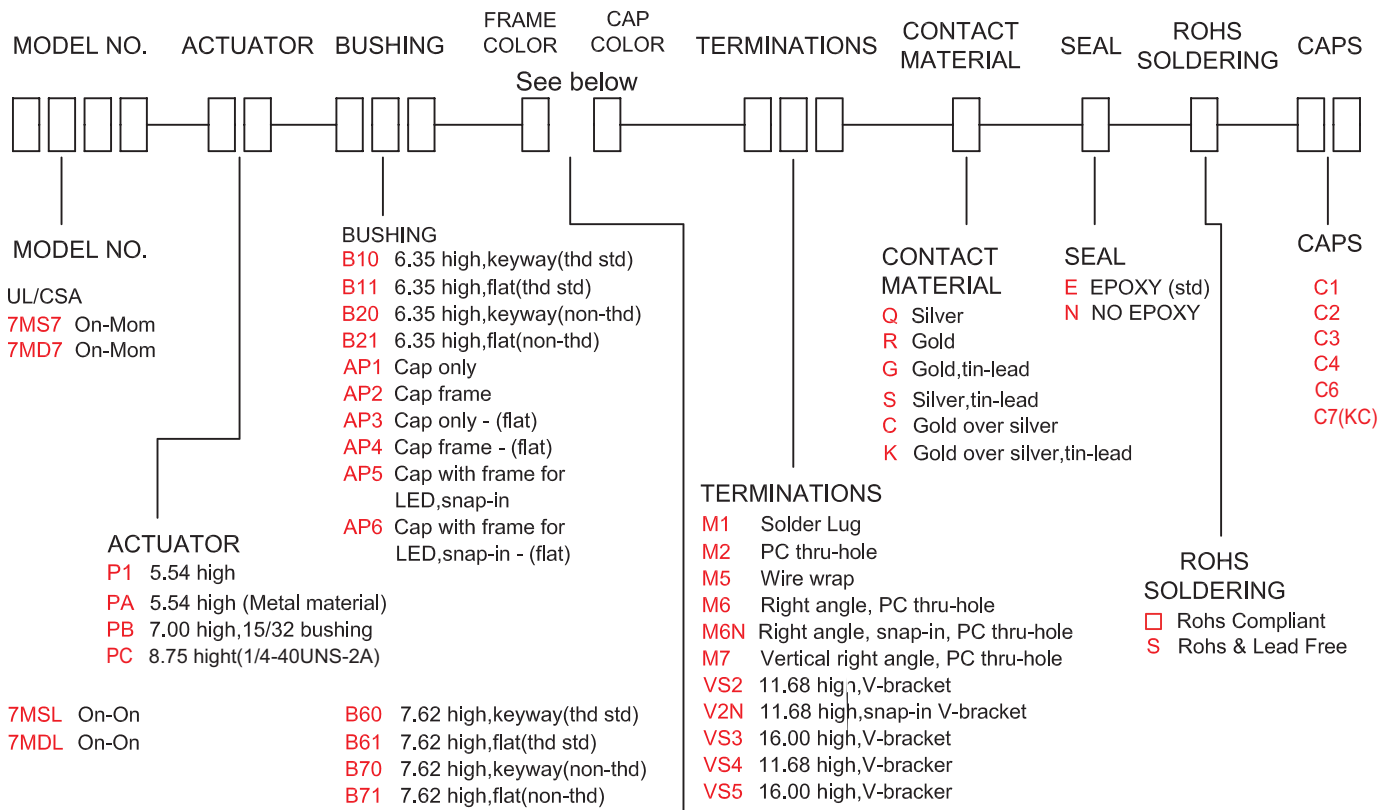
PLUNGER - Glass filled Nylon or Glass filled polyester.

BUSHING - Brass,nickel plated.

HOUSING - Stainless Steel.

CONTACT - Silver or gold plated. (See Page 112)

HOW TO ORDER



FRAME COLOR CAP COLOR
See below

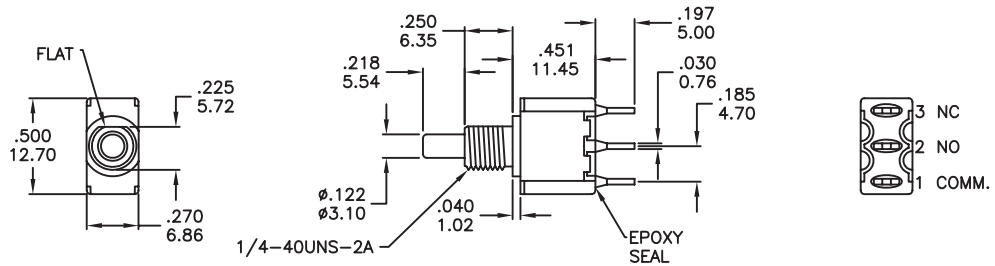
ITEM NO	COLOR
1	White
2	Black (Std)
3	Red
4	Orange
5	Yellow
6	Green
7	Blue
8	Brown
9	Gray

SWITCH FUNCTION

NO. POLES	UL/CSA MODEL NO.	MODEL NO.	SWITCH FUNCTION		CONNECTED TERMINALS		
			POS.1	POS.2	POS.1	POS.2	SCHEMATIC
SP	Q2717	7MS7	ON	MOM	1-3	1-2	
DP	Q2727	7MD7	ON	MOM	1-3,4-6	1-2,4-5	

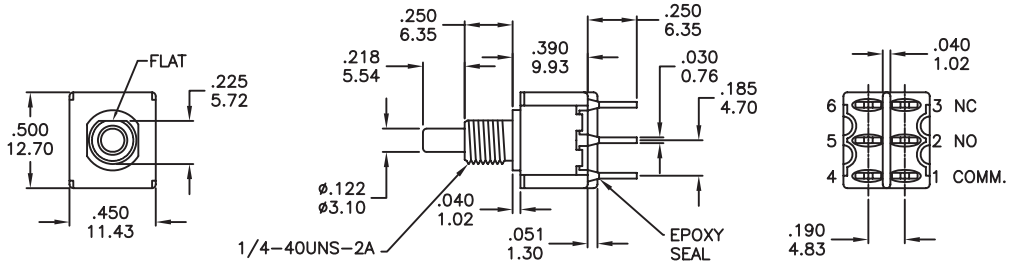
MOM=MOMENTARY

POLE OPTIONS



SPDT

Part No. Shown : 7MS7P1B11M1QE

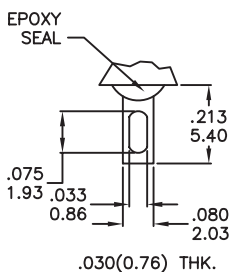


DPDT

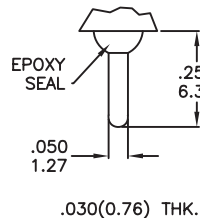
Part No. Shown : 7MD7P1B11M2QE

TERMINATION OPTIONS

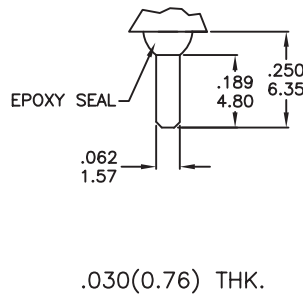
M1 SOLDER LUG



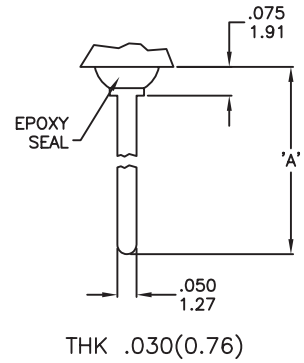
M2 P.C. MOUNT



M3 QUICK CONNECT



M5 WIRE WRAP



OTHER TERMINATION OPTIONS

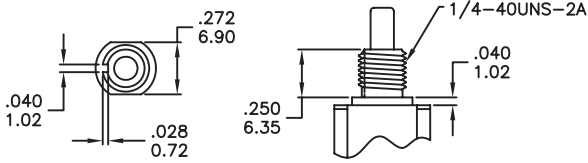
- M6 RIGHT ANGLE P.C. MOUNT
- M7 RIGHT ANGLE P.C. MOUNT
- VS2 VERTICAL SUPPORT P.C. MOUNT
- VS3 VERTICAL SUPPORT P.C. MOUNT
- VS4 VERTICAL SUPPORT P.C. MOUNT
- VS5 VERTICAL SUPPORT P.C. MOUNT

RE Mating Quick Connector
Amp P/N 60900-1

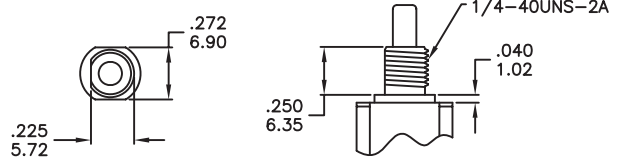
OPTION CODE	DIM. 'A'
M5-1	.750(19.05)
M5-2	.964(24.48)
M5-3	.426(10.80)
M5-4	.650(16.50)

BUSHING OPTIONS

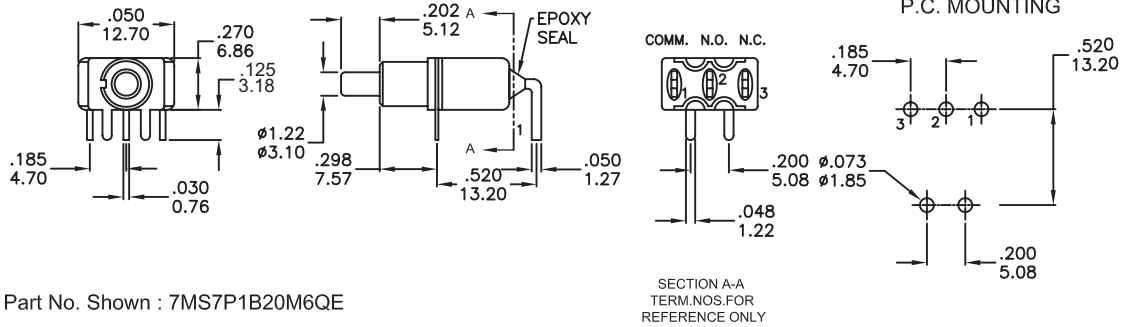
B10 THD STD
B20 NON-THD



B11 THD STD
B21 NON-THD

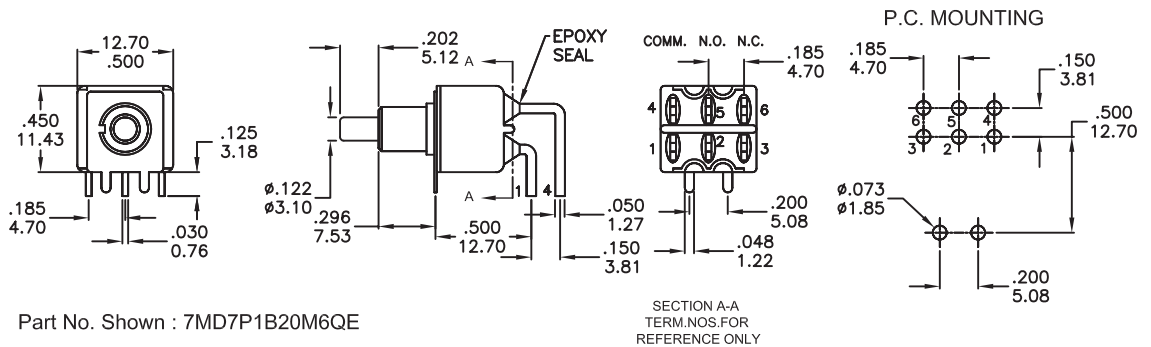


M6



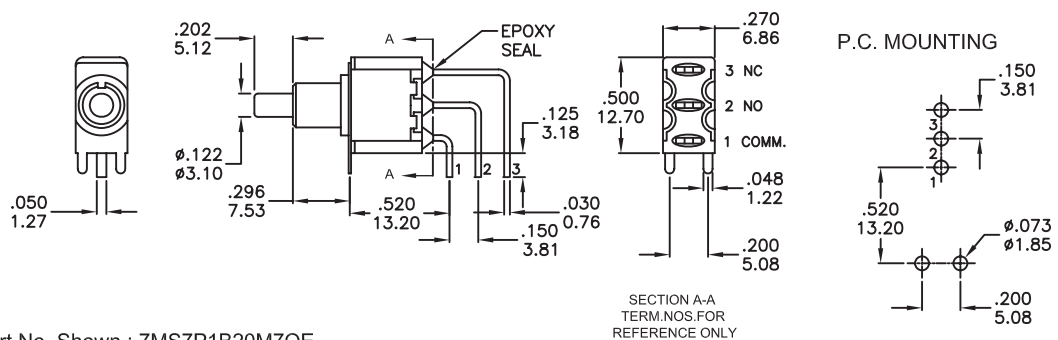
SPDT

M6



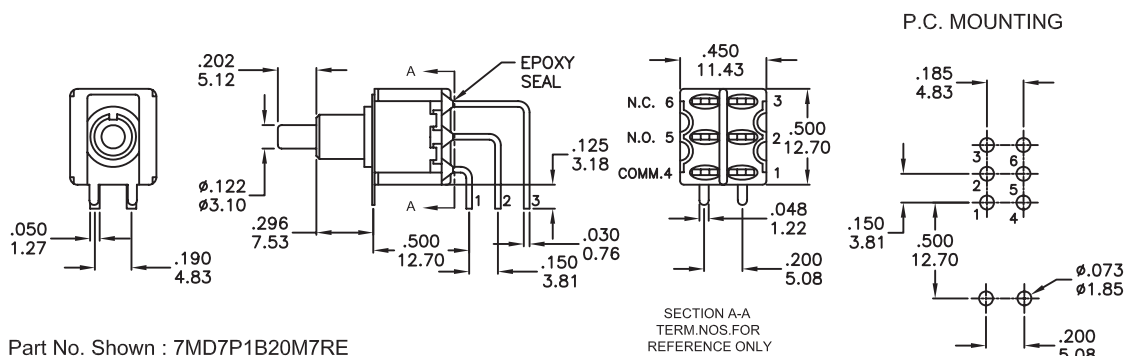
DPDT

M7



SPDT

M7

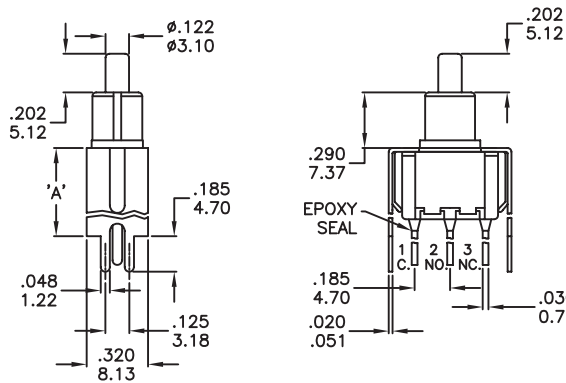


DPDT

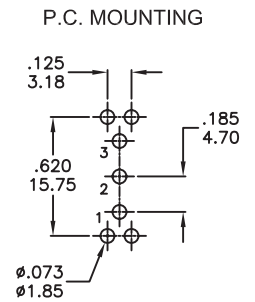
7M Series

Snap-Acting Pushbutton Switches

VS2-VS3



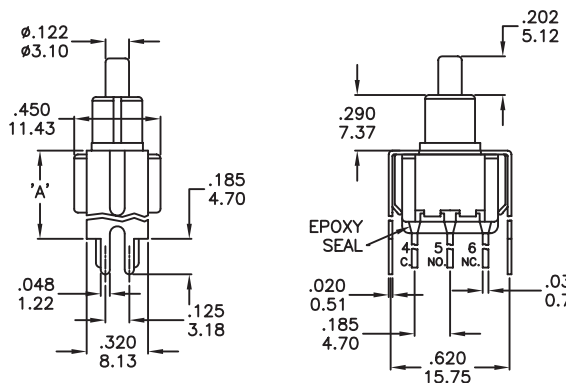
OPTION CODE	DIM. 'A'
VS2	.460 11.68
VS3	.630 16.00



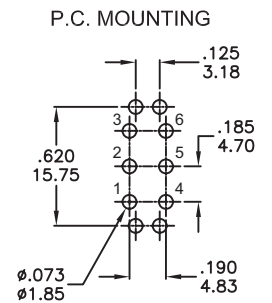
SPDT

Part No. Shown : 7MS7P1B20V2RE

VS2



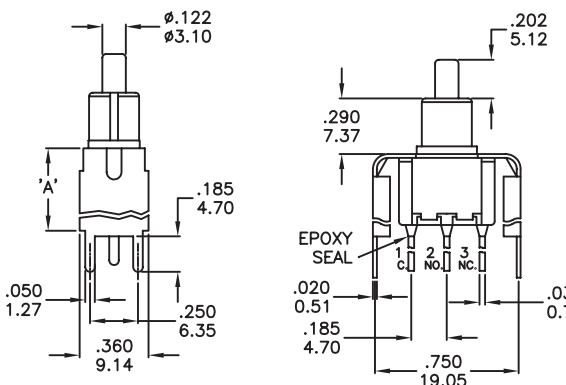
OPTION CODE	DIM. 'A'
VS2	.460 11.68
VS3	.630 16.00



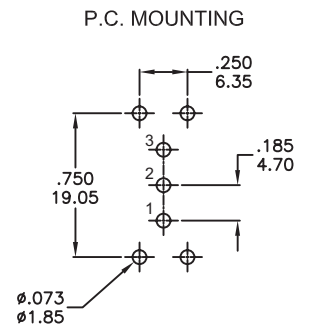
DPDT

Part No. Shown : 7MD7P1B20V2QE

VS4-VS5



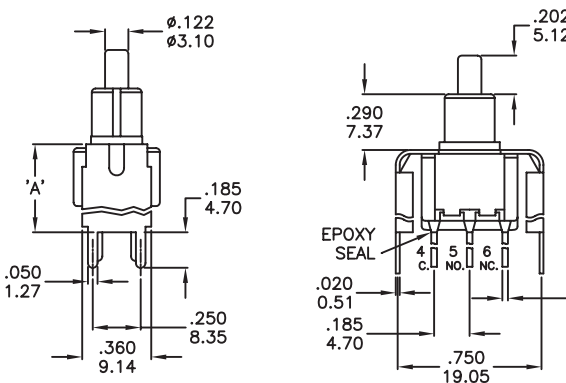
OPTION CODE	DIM. 'A'
VS4	.460 11.68
VS5	.630 16.00



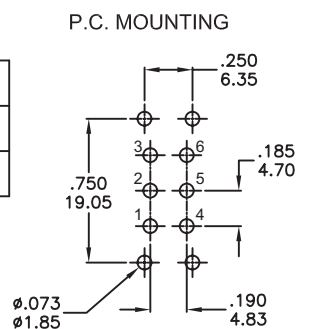
SPDT

Part No. Shown : 7MS7P1B20V4QE

VS4-VS5



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

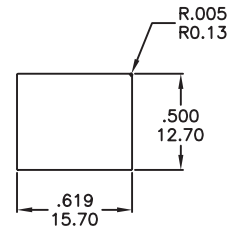
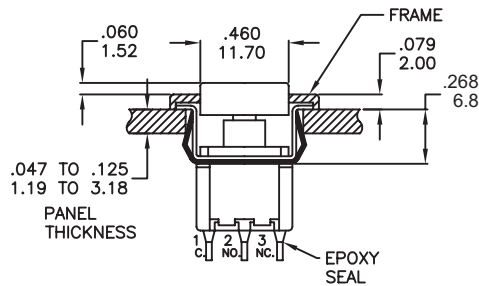
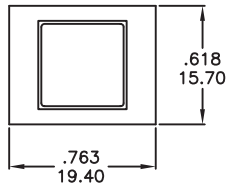


DPDT

Part No. Shown : 7MD7P1B20V4QE

PANEL MOUNT

AP2 CAP & FRAME / AP1 CAP ONLY



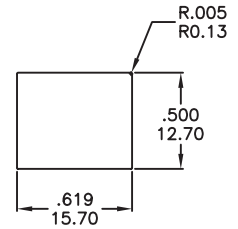
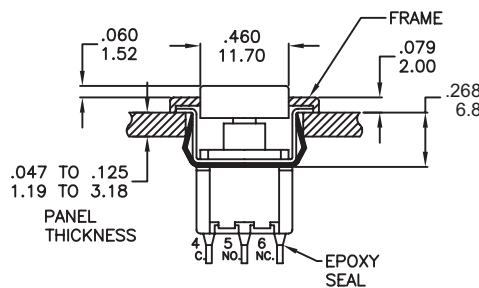
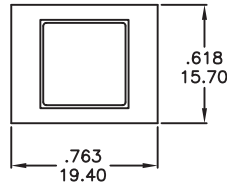
INCREASE TO .620/.625 15.75/15.88 FOR .091/.125 2.31/3.18 THK PANEL

SPDT

Part No. Shown : 7MS7AP223M1QE

PANEL LAYOUT

AP2 CAP & FRAME / AP1 CAP ONLY



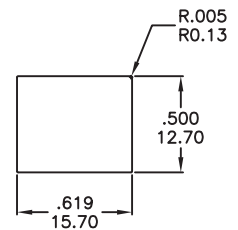
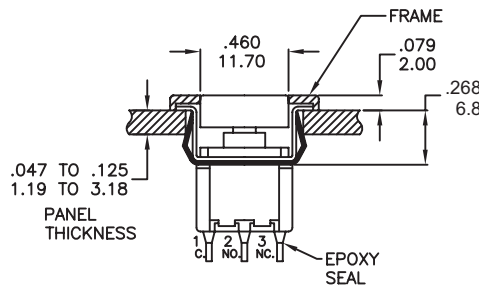
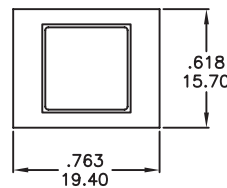
INCREASE TO .620/.625 15.75/15.88 FOR .091/.125 2.31/3.18 THK PANEL

DPDT

Part No. Shown : 7MD7AP223M1QE

PANEL LAYOUT

AP4 CAP & FRAME / AP3 CAP ONLY



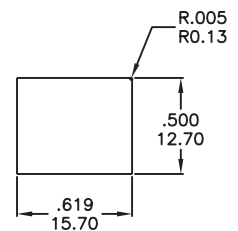
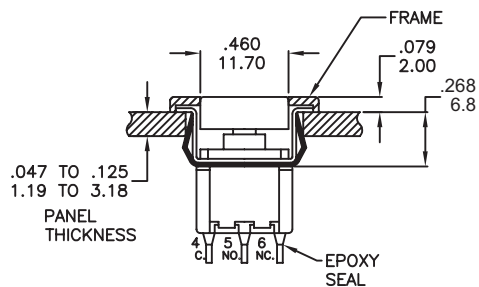
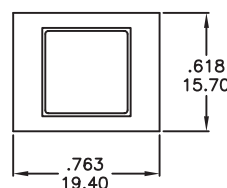
INCREASE TO .620/.625 15.75/15.88 FOR .091/.125 2.31/3.18 THK PANEL

SPDT

Part No. Shown : 7MS7AP423M1RE

PANEL LAYOUT

AP4 CAP & FRAME / AP3 CAP ONLY



INCREASE TO .620/.625 15.75/15.88 FOR .091/.125 2.31/3.18 THK PANEL

DPDT

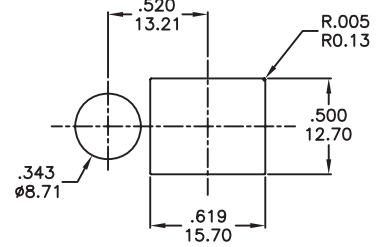
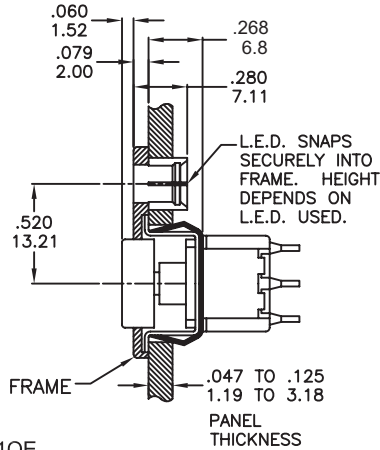
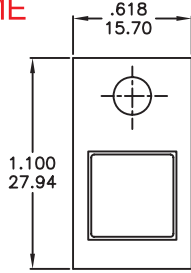
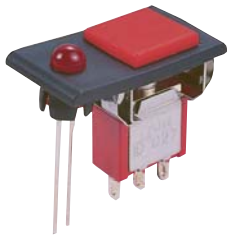
Part No. Shown : 7MD7AP423M1RE

PANEL LAYOUT

7M Series

Snap-Acting Pushbutton Switches

AP5 CAP & FRAME



PANEL LAYOUT

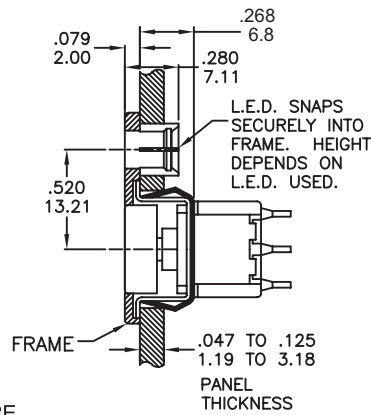
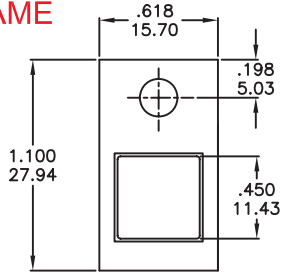
SPDT

Part No. Shown : 7MS7AP523M1QE

CAP AND FRAME COLORS

OPTION CODE	COLOR
1	WHITE
2	BLACK(std)
3	RED

AP6 CAP & FRAME



LED COLORS

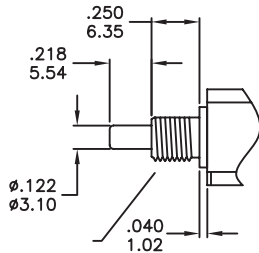
OPTION CODE	COLOR
3	RED(std)
4	ORANGE
6	GREEN

DPDT

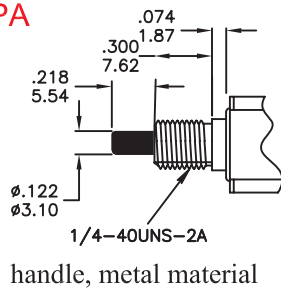
Part No. Shown : 7MS7AP623M1RE

ACTUATOR

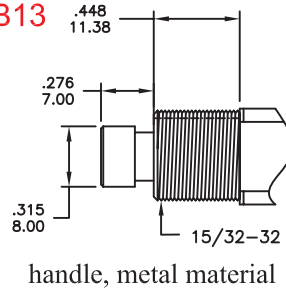
P1



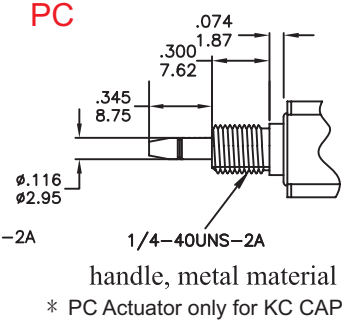
PA



PBB13

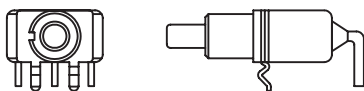


PC

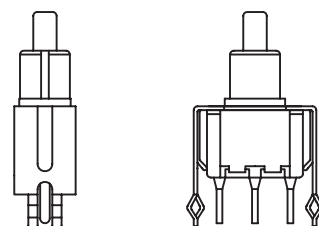


SNAP-IN TERMINATION OPTIONS

M6N



V2N



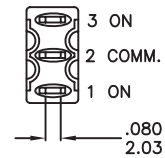
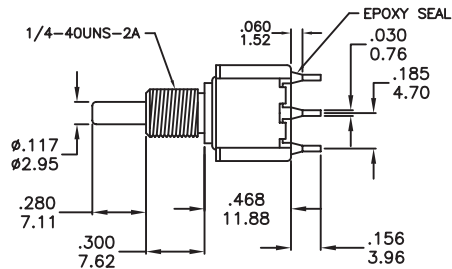
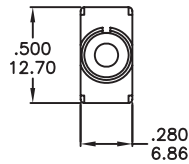
7M Series

Snap-Acting Pushbutton Switches

SWITCH FUNCTION

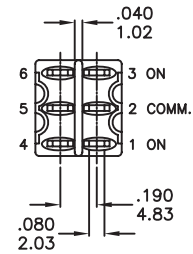
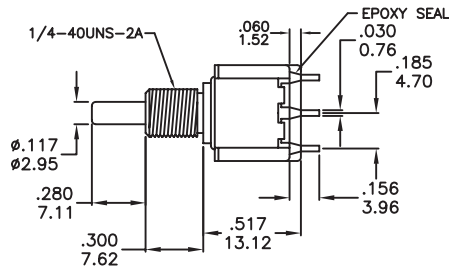
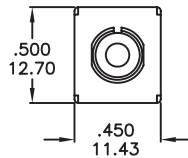
NO. POLES	UL/CSA MODEL NO.	MODEL NO.	SWITCH FUNCTION		CONNECTED TERMINALS/SCHEMATIC			
			POS.1	POS.2	POS.1		POS.2	
SP	Q271L	7MSL	ON	ON	1-2		2-3	
DP	Q272L	7MDL	ON	ON	1-2,4-5		2-3,5-6	

POLE OPTIONS



SPDT

Part No. Shown : 7MSLP1B60M1QE

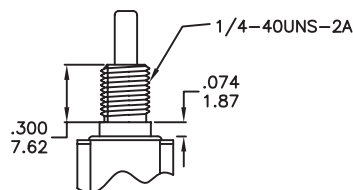
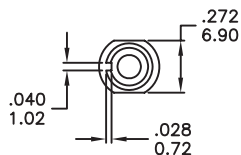


DPDT

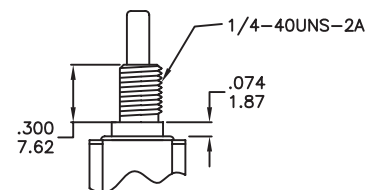
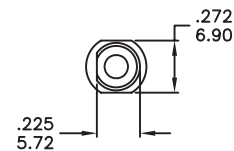
Part No. Shown : 7MDLP1B60M1QE

BUSHING OPTIONS

B60 THD STD
B70 NON-THD

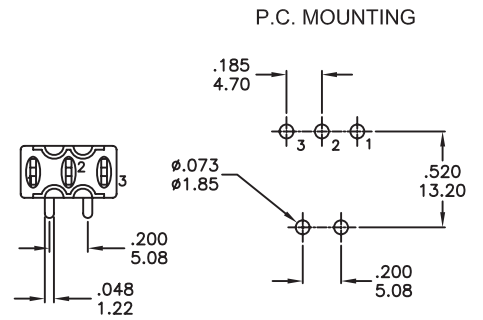
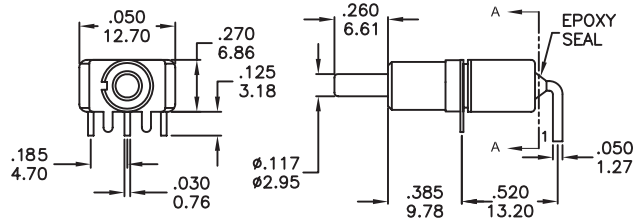


B61 THD STD
B71 NON-THD



TERMINATION OPTIONS

M6

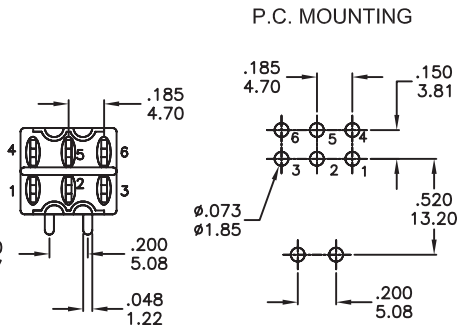
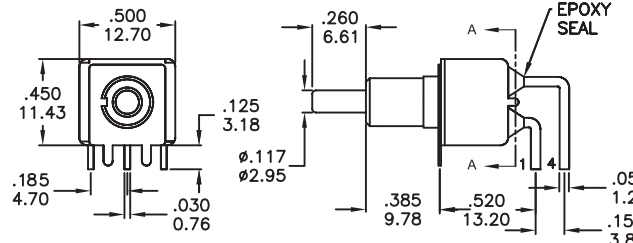


SECTION A-A
TERM.NOS.FOR
REFERENCE ONLY

Part No. Shown : 7MSLP1B70M6QE

SPDT

M6

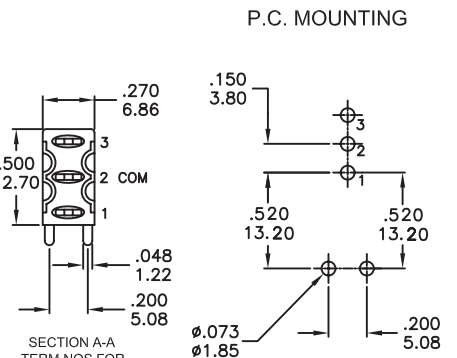
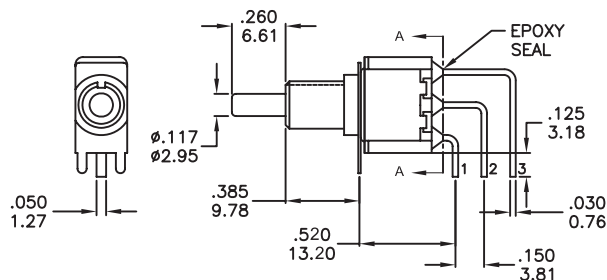
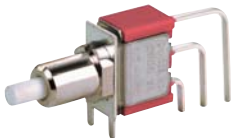


SECTION A-A
TERM.NOS.FOR
REFERENCE ONLY

Part No. Shown : 7MDLP1B70M6QE

DPDT

M7



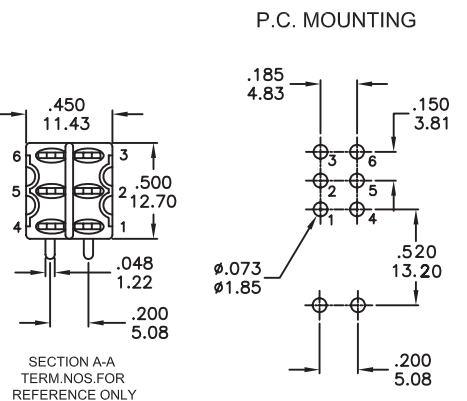
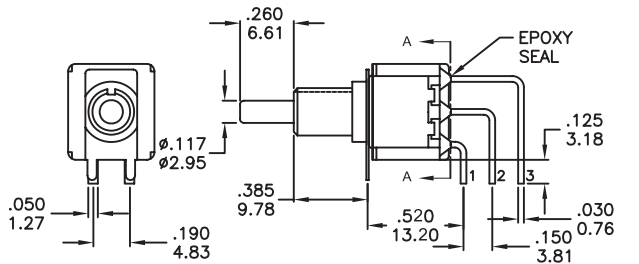
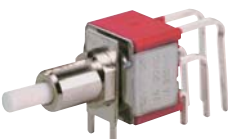
SECTION A-A
TERM.NOS.FOR
REFERENCE ONLY

Part No. Shown : 7MSLP1B70M7QE

SPDT

7M Snap-Acting Pushbutton Switches

M7



SECTION A-A
TERM.NOS.FOR
REFERENCE ONLY

Part No. Shown : 7MDLP1B70M7QE

DPDT

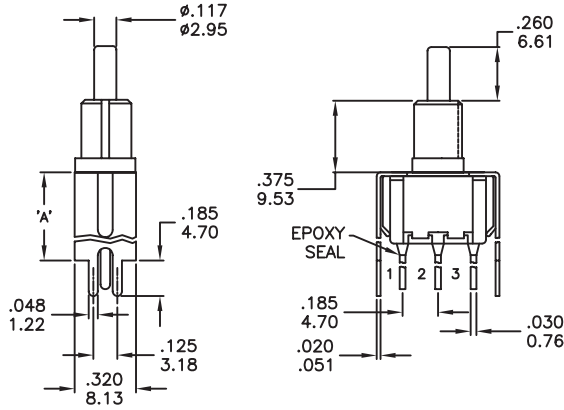
7M Series

Snap-Acting Pushbutton Switches

VS2-VS3

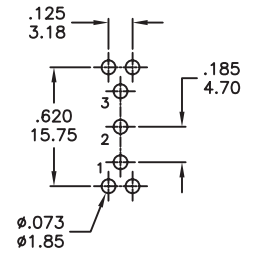


SPDT



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

P.C. MOUNTING

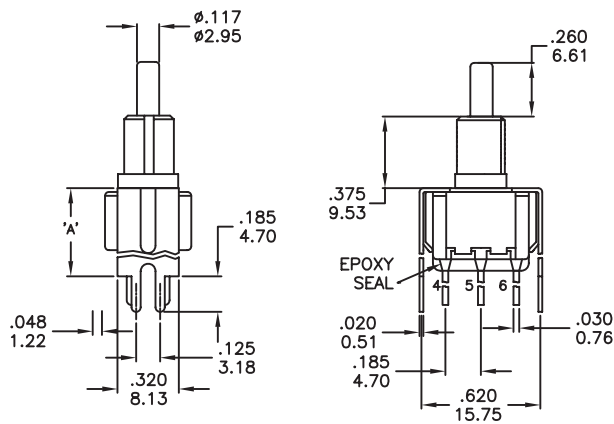


Part No. Shown : 7MSLP1B70V2QE

VS2-VS3

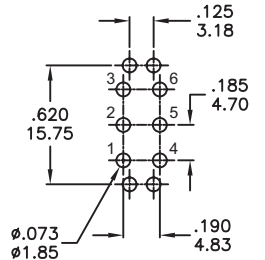


DPDT



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

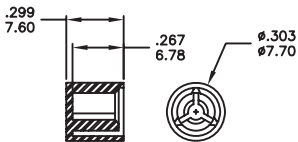
P.C. MOUNTING



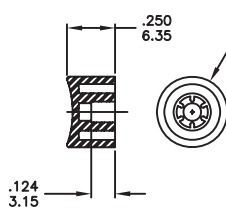
Part No. Shown : 7MDLP1B70V2QE

CAPS

C1



C2



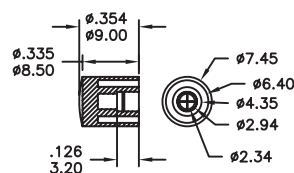
C3



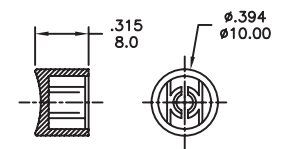
C4



C6



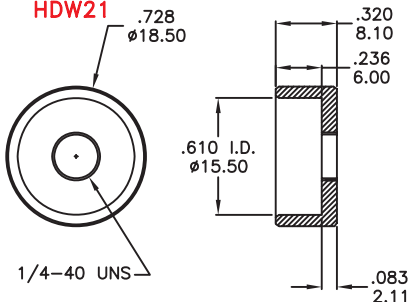
C7(KC)



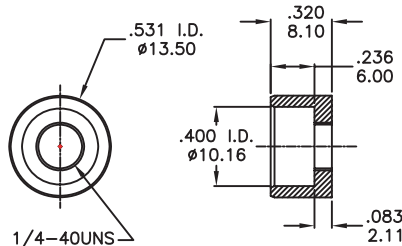
Colors: White, Black, Green, Red

HARDWARE

HDW21

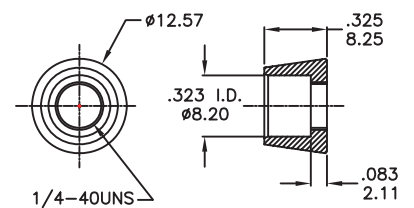


HDW22



FOR CAP:C2

HDW23



FOR CAP:C1

CONTACT MATERIAL OPTIONS

	CONTACT MATERIAL	TERMINATION RATING	RATINGS
Q	Silver	Q = Silver	3 Amps with resistant load @ 120VAC or 28VDC 1 Amps with resistant load @ 250VAC
S		S = 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	



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

