

SPECIFICATIONS

CONTACT RATING: Dependent upon contact material see page 108.

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 Vrms min. @ sea 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: Copper alloy, silver or gold plated. (See Page 108)

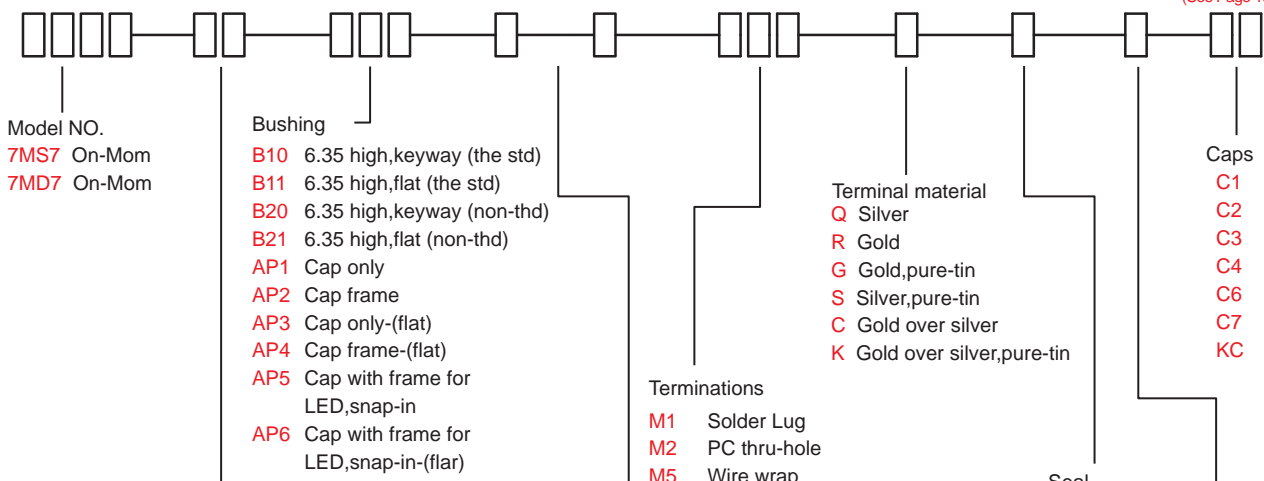


HOW TO ORDER

MODEL NO. ACTUATOR BUSHING FRAME COLOR CAP COLOR TERMINATIONS TERMINAL MATERIAL SEAL RoHS SOLDERING CAPS

See below

(See Page 108)



Model NO.
7MS7 On-Mom
7MD7 On-Mom

Bushing
B10 6.35 high, keyway (the std)
B11 6.35 high, flat (the std)
B20 6.35 high, keyway (non-thd)
B21 6.35 high, flat (non-thd)
AP1 Cap only
AP2 Cap frame
AP3 Cap only-(flat)
AP4 Cap frame-(flat)
AP5 Cap with frame for LED, snap-in
AP6 Cap with frame for LED, snap-in-(flar)

Terminal material
Q Silver
R Gold
G Gold, pure-tin
S Silver, pure-tin
C Gold over silver
K Gold over silver, pure-tin

Caps
C1
C2
C3
C4
C6
C7
KC

Terminations
M1 Solder Lug
M2 PC thru-hole
M5 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
VS4 11.68 high, V-bracket
VS5 16.00 high, V-bracket

Seal
E EPOXY (std)
N NO EPOXY

RoHS soldering
 RoHS Compliant
 RoHS & Lead Free
 Halogen Free+RoHS

Model NO.
7MSL On-On
7MDL On-On

Bushing
B60 7.62 high, keyway (the std)
B61 7.62 high, flat (the std)
B70 7.62 high, keyway (non-thd)
B71 7.62 high, flat (non-thd)
AP2 Cap frame
AP5 Cap with frame for LED, snap-in

Actuator
P1 5.54 high
P1 7.11 high (for lock)
PA 5.54 high (Metal material)
PB 7.00 high (Metal material, 15/32 bushing)
PC 8.75 high (Metal material, B60 bushing only)

Frame/Cap color

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



SWITCH FUNCTION

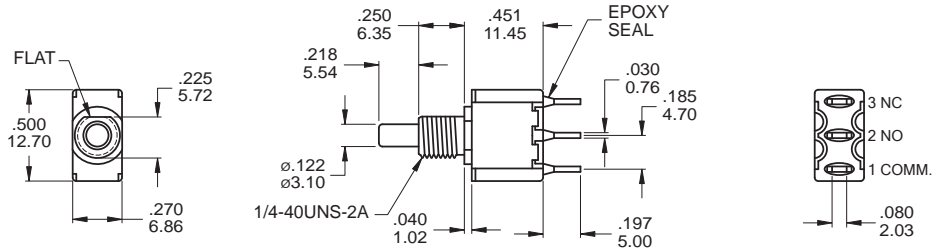
NO. POLES	UL/CSA MODEL NO.	MODEL NO.	SWITCH FUNCTION		CONNECTED TERMINALS / SCHEMATIC	
			POS.1	POS.2	POS.1	POS.2
SP	Q2717	7MS7	ON	MOM	1-3 NC 3 • 1 (COMM) • 2 NO	1-2 NC 3 • 1 (COMM) • 2 NO
DP	Q2727	7MD7	ON	MOM	1-3,4-6 NC 3 • 1 (COMM) • 2 NO NC 6 • 4 • 5 NO	1-2,4-5 NC 3 • 1 (COMM) • 2 NO NC 6 • 4 • 5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

POLE OPTIONS



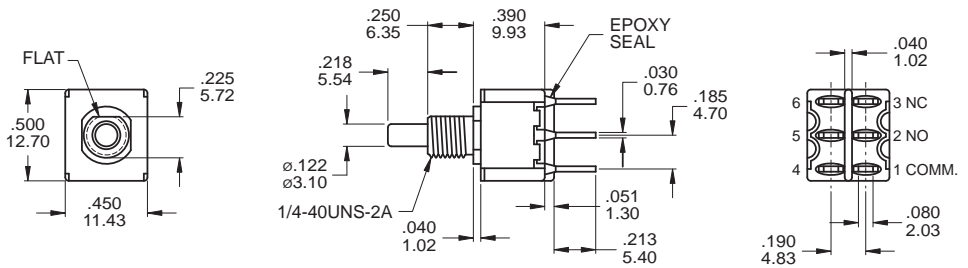
SPDT

Part No. Shown : 7MS7P1B11M1QE



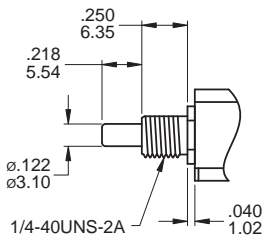
DPDT

Part No. Shown : 7MD7P1B11M1QE

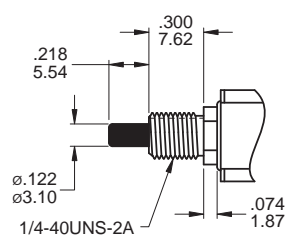


ACTUATOR OPTIONS

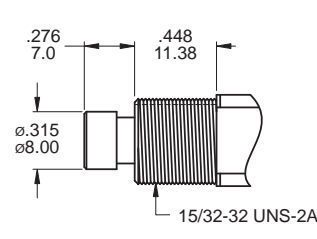
P1



PA handle, metal material

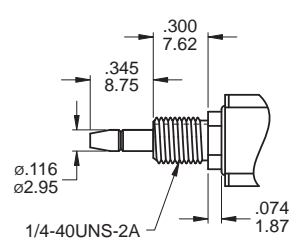


PBB13 handle, metal material



Use with B13 bushing only

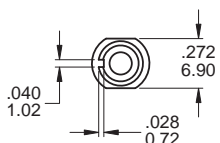
PCB60 handle, metal material



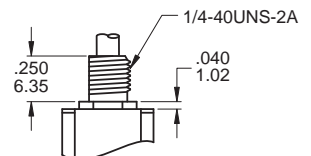
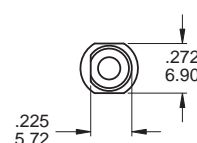
Use with B60 bushing std
* PC Actuator only for KC Cap

BUSHING OPTIONS

B10 THD STD
B20 NON-THD



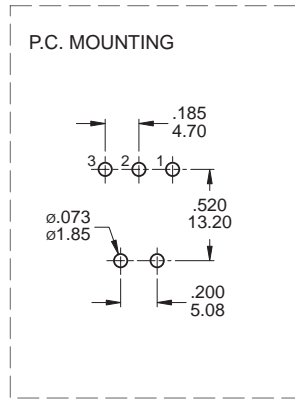
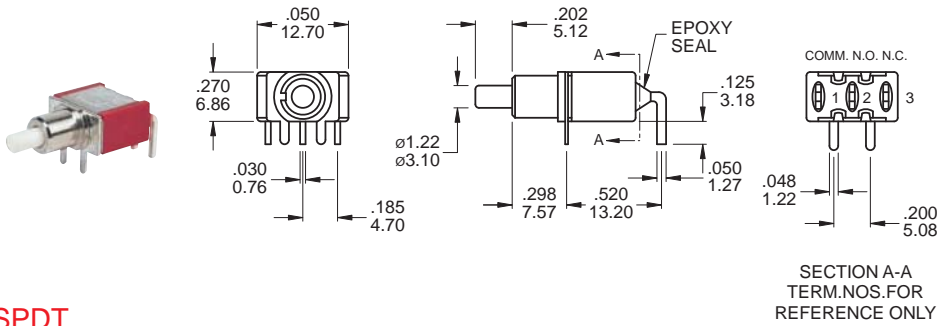
B11 THD STD
B21 NON-THD



7M Series

Snap-Acting Pushbutton Switches

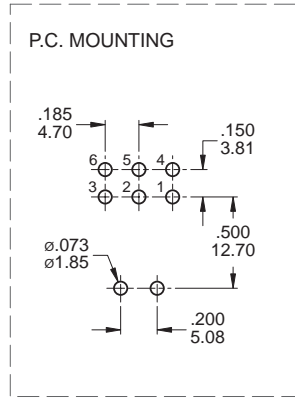
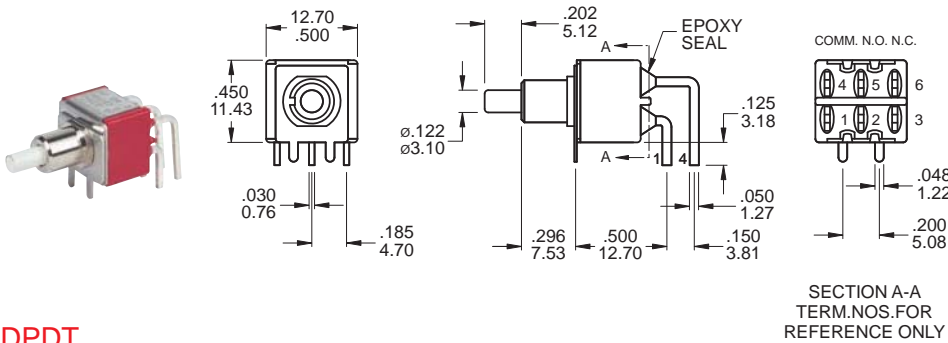
M6



SPDT

Part No. Shown : 7MS7P1B20M6QE

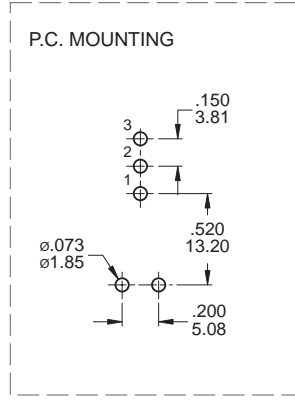
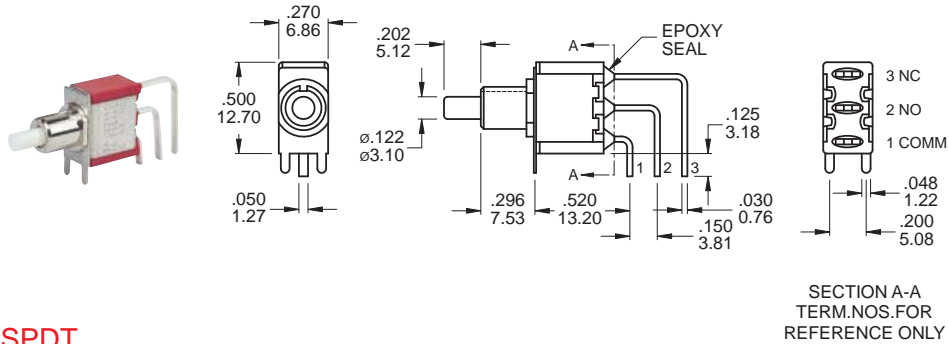
M6



DPDT

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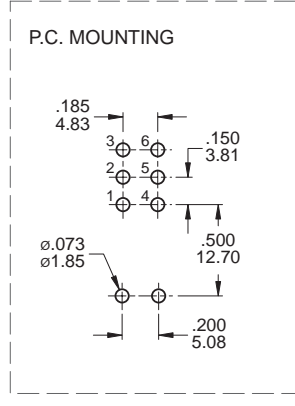
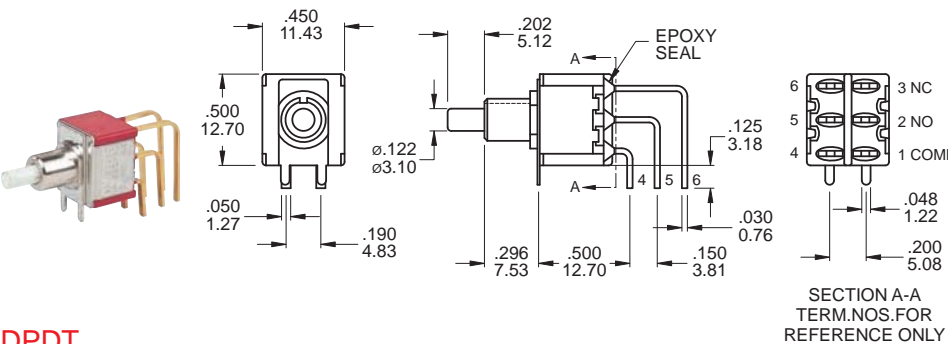
M7



SPDT

Part No. Shown : 7MS7P1B20M7QE

M7



DPDT

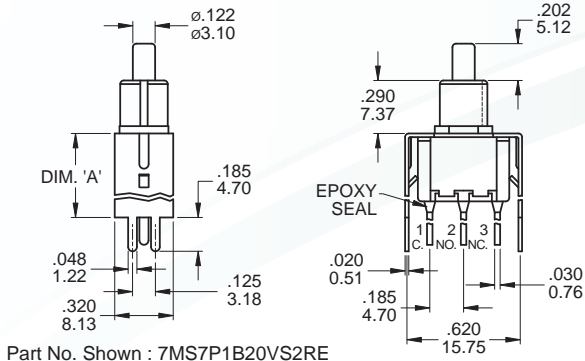
Part No. Shown : 7MD7P1B20M7RE

7M Pushbutton Switches

VS2 - VS3



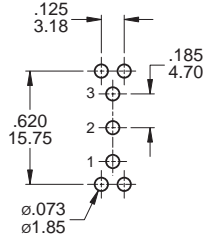
SPDT



Part No. Shown : 7MS7P1B20VS2RE

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

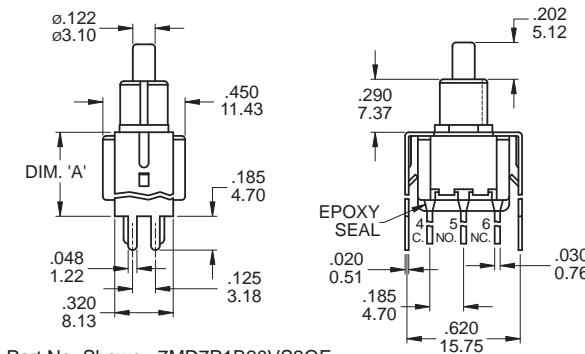
P.C. MOUNTING



VS2 - VS3



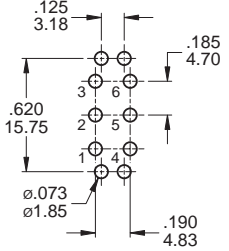
DPDT



Part No. Shown : 7MD7P1B20VS2QE

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

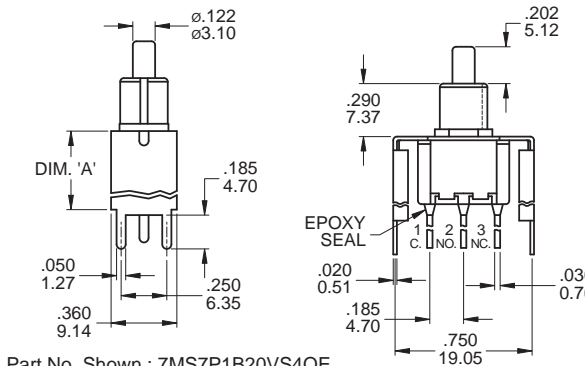
P.C. MOUNTING



VS4 - VS5



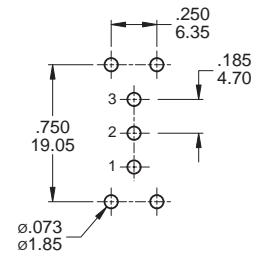
SPDT



Part No. Shown : 7MS7P1B20VS4QE

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

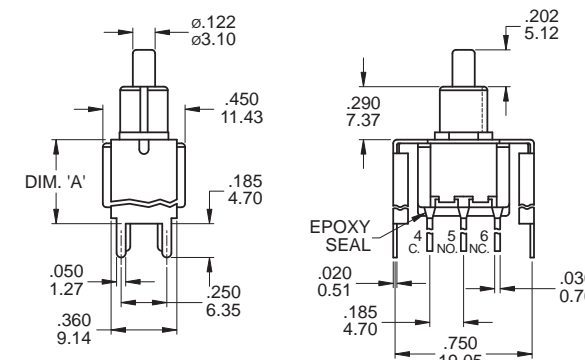
P.C. MOUNTING



VS4 - VS5



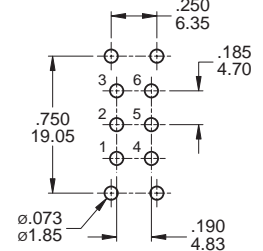
DPDT



Part No. Shown : 7MD7P1B20VS4QE

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

P.C. MOUNTING

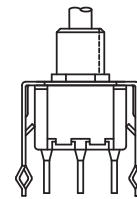
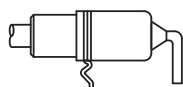


SNAP-IN TERMINATION OPTIONS

M6N

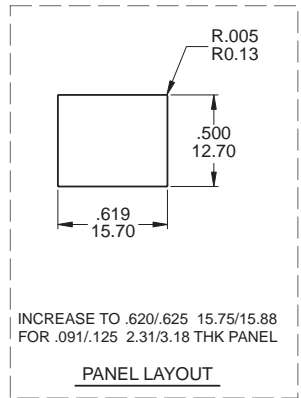
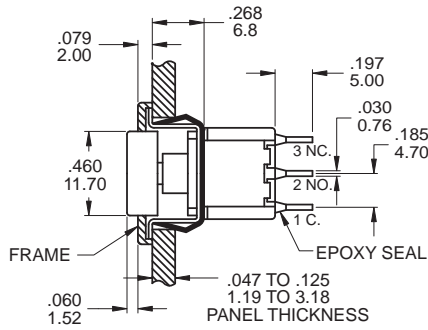
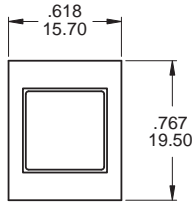


V2N



PANEL MOUNTING

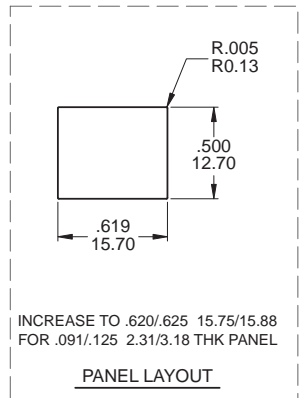
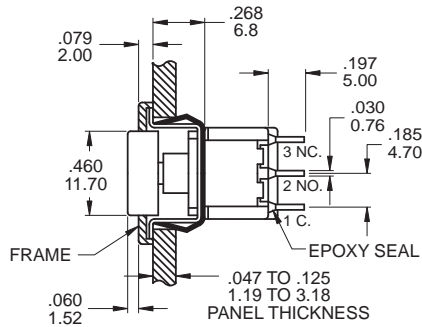
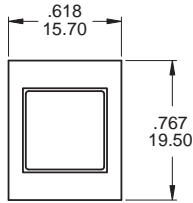
AP2 CAP & FRAME / AP1 CAP ONLY



SPDT

Part No. Shown : 7MS7AP223M1QE

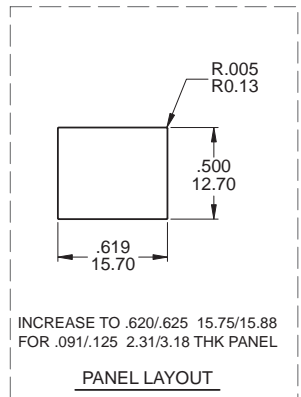
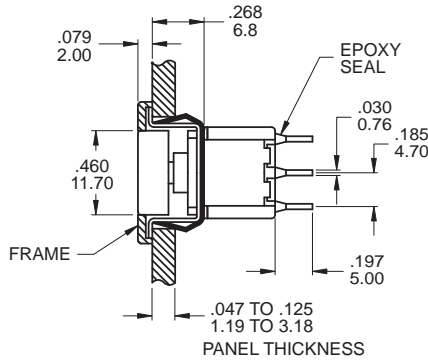
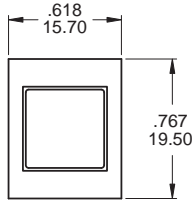
AP2 CAP & FRAME / AP1 CAP ONLY



DPDT

Part No. Shown : 7MD7AP223M1QE

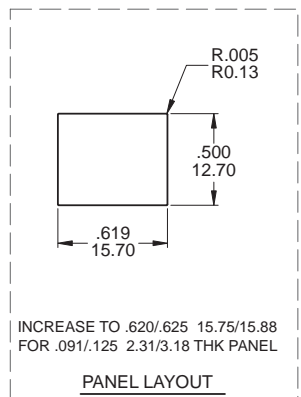
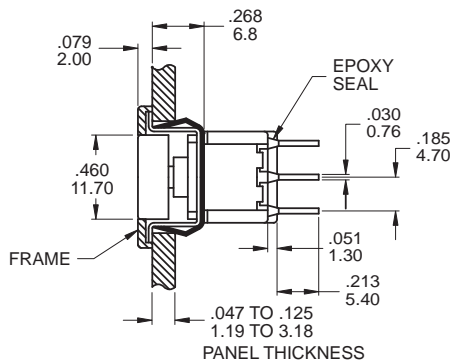
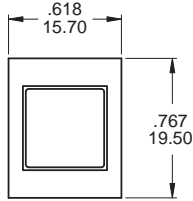
AP4 CAP & FRAME / AP3 CAP ONLY



SPDT

Part No. Shown : 7MS7AP429M1RE

AP4 CAP & FRAME / AP3 CAP ONLY

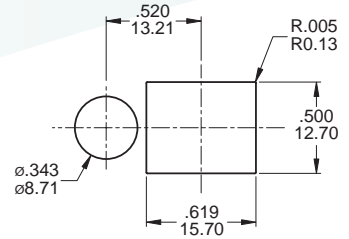
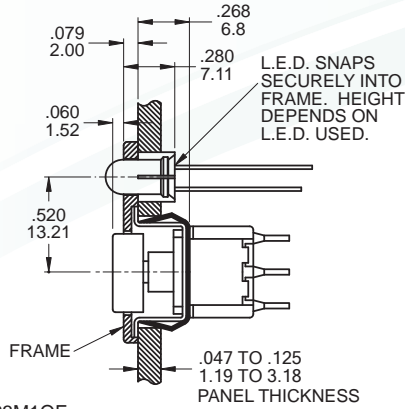
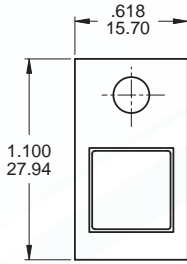
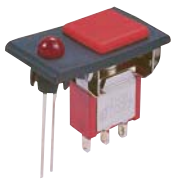


DPDT

Part No. Shown : 7MD7AP423M1RE



AP5 CAP & FRAME



PANEL LAYOUT

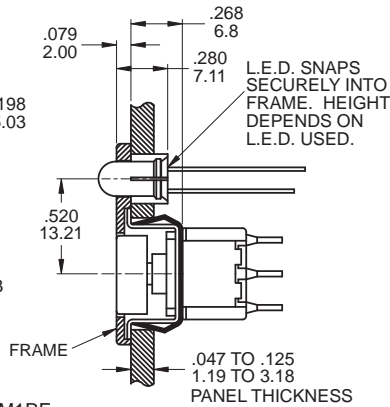
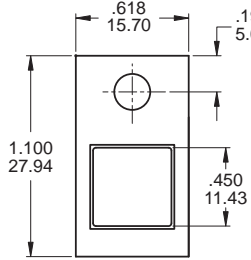
SPDT

Part No. Shown : 7MS7AP523M1QE

CAP AND FRAME COLORS

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

AP6 CAP & FRAME



LED COLORS

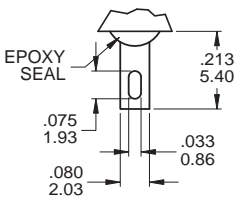
OPTION CODE	COLOR
3	RED(std)
4	ORANGE
6	GREEN

DPDT

Part No. Shown : 7MS7AP629M1RE

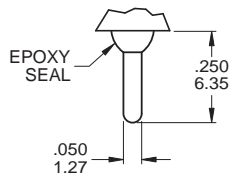
TERMINATION OPTIONS

M1 Solder lug



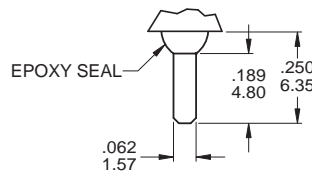
.030(0.76) THK.

M2 PC Thru-hole



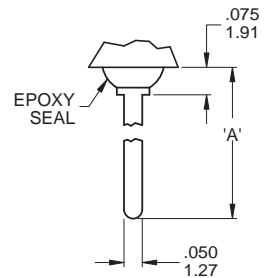
.030(0.76) THK.

M3 Quick connect



.030(0.76) THK.

M5 Wire Wrap



.030(0.76) THK.

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

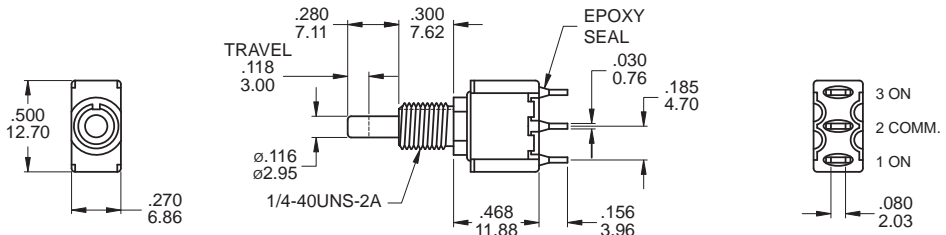
OPTION CODE	DIM. 'A'
M5-1	.750 (19.50)
M5-2	.964 (24.48)
M5-3	.426 (10.80)
M5-4	.650 (16.50)

SWITCH FUNCTION

NO. POLES	UL/CSA MODEL NO.	MODEL NO.	SWITCH FUNCTION		CONNECTED TERMINALS / SCHEMATIC	
			POS.1	POS.2	POS.1	POS.2
SP	Q27	7MSL	ON	ON	1-2 	2-3
DP	Q27	7MDL	ON	ON	1-2,4-5 	2-3,5-6

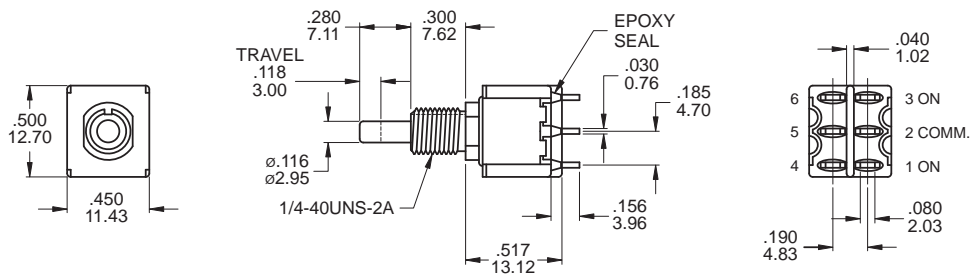
MOM=MOMENTARY

POLE OPTIONS



SPDT

Part No. Shown : 7MSLP1B60M1QE

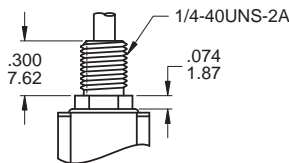
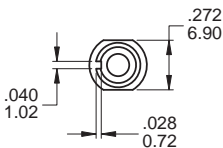


DPDT

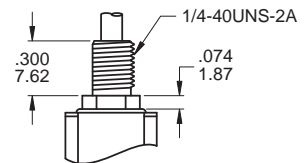
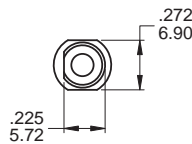
Part No. Shown : 7MDLP1B60M1QE

BUSHING OPTIONS

B60 THD STD
B70 NON-THD

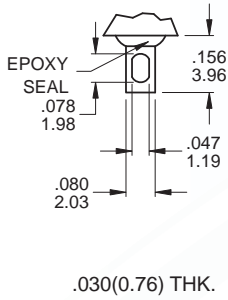


B61 THD STD
B71 NON-THD

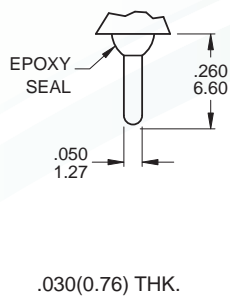


TERMINATION OPTIONS

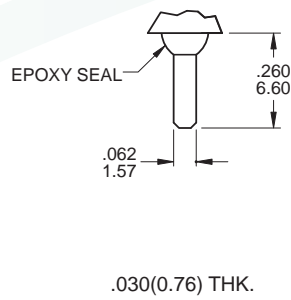
M1 Solder lug



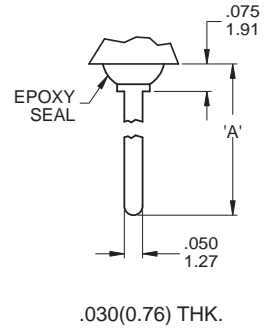
M2 PC Thru-hole



M3 Quick connect



M5 Wire Wrap



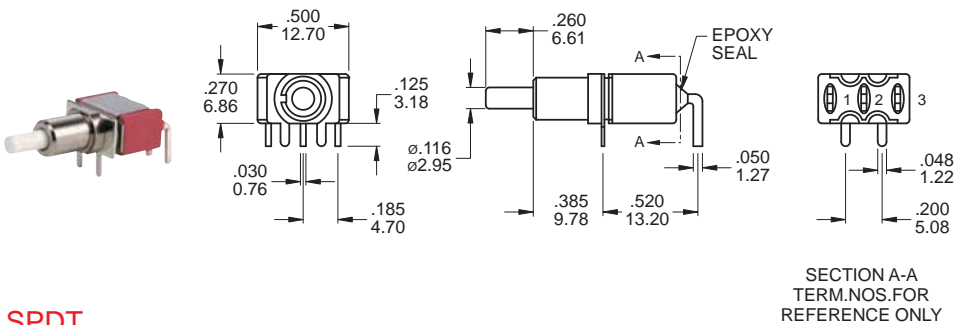
OTHER TERMINATION OPTIONS

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

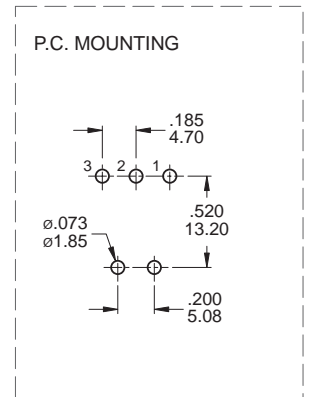
OPTION CODE	DIM. 'A'
M5-1	.750 (19.50)
M5-2	.964 (24.48)
M5-3	.426 (10.80)
M5-4	.650 (16.50)

TERMINATION OPTIONS

M6

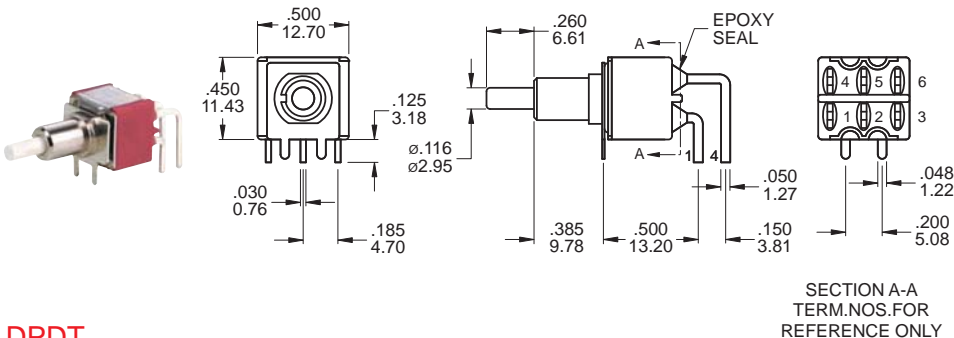


Part No. Shown : 7MSLP1B70M6QE

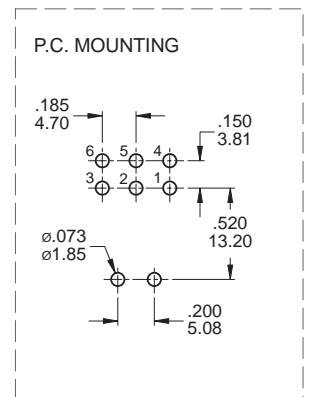


SPDT

M6

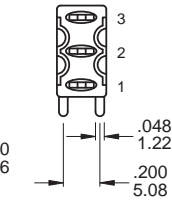
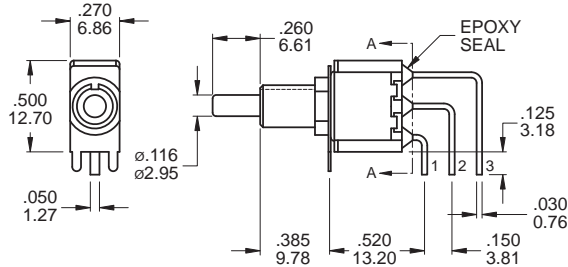


Part No. Shown : 7MDLP1B70M6QE



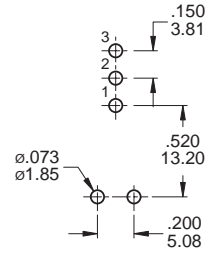
DPDT

M7



SECTION A-A
TERM.NOS.FOR
REFERENCE ONLY

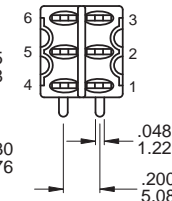
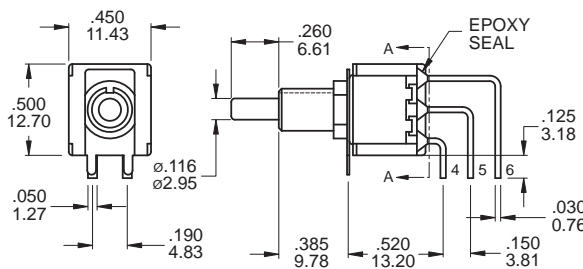
P.C. MOUNTING



SPDT

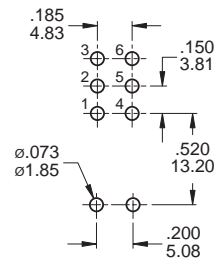
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M7



SECTION A-A
TERM.NOS.FOR
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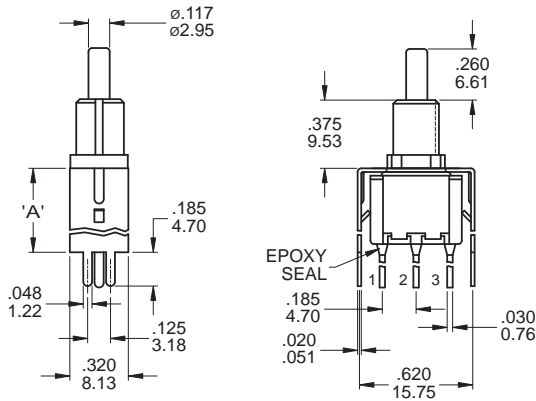
P.C. MOUNTING



DPDT

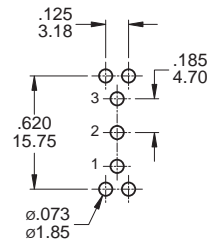
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VS2 - VS3



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

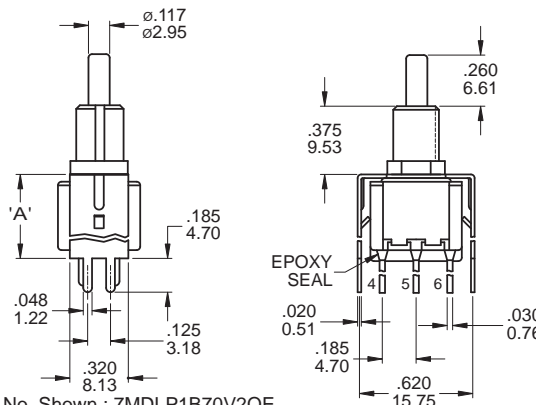
P.C. MOUNTING



SPDT

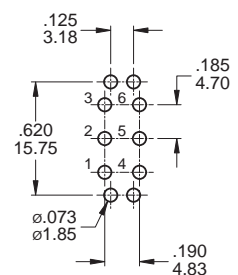
Part No. Shown : 7MSLP1B70V2QE

VS2 - VS3



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

P.C. MOUNTING



DPDT

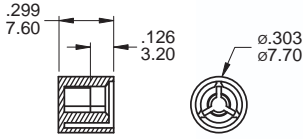
Part No. Shown : 7MDLP1B70V2QE



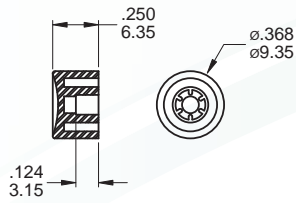
CAP OPTIONS

For 7M,7A Series ONLY, CAP Colors: White, Black, Green, Red

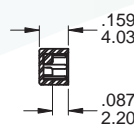
C1



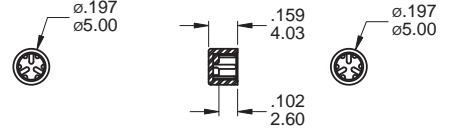
C2



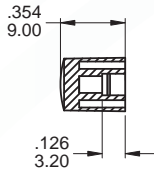
C3



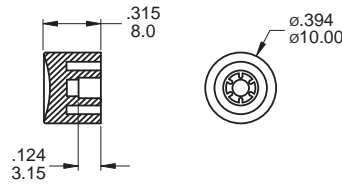
C4



C6



C7

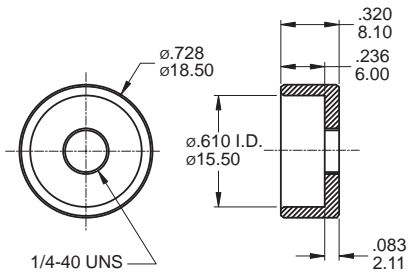


KC for PC actuator only



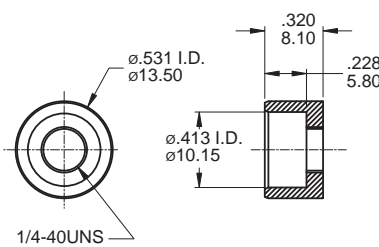
DRESS NUTS

HDW21



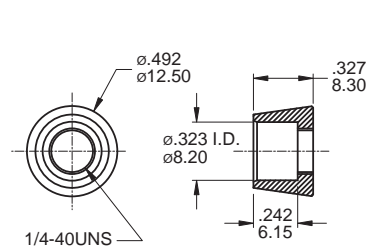
MNU-1M19

HDW22 for C2 Cap



MNU-1M20

HDW23 for C1 Cap



MNU-1M21

CONTACT MATERIAL OPTIONS

	CONTACT PLATING	TERMINAL PLATING	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: Max 5 sec. (PCB is 1.6mm in thickness)