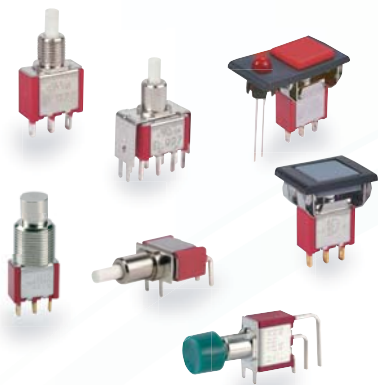




## SPECIFICATIONS

**CONTACT RATING:** Dependent upon contact material  
see page 107.

**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:** Dially phthalate(DAP) (UL94V-0).

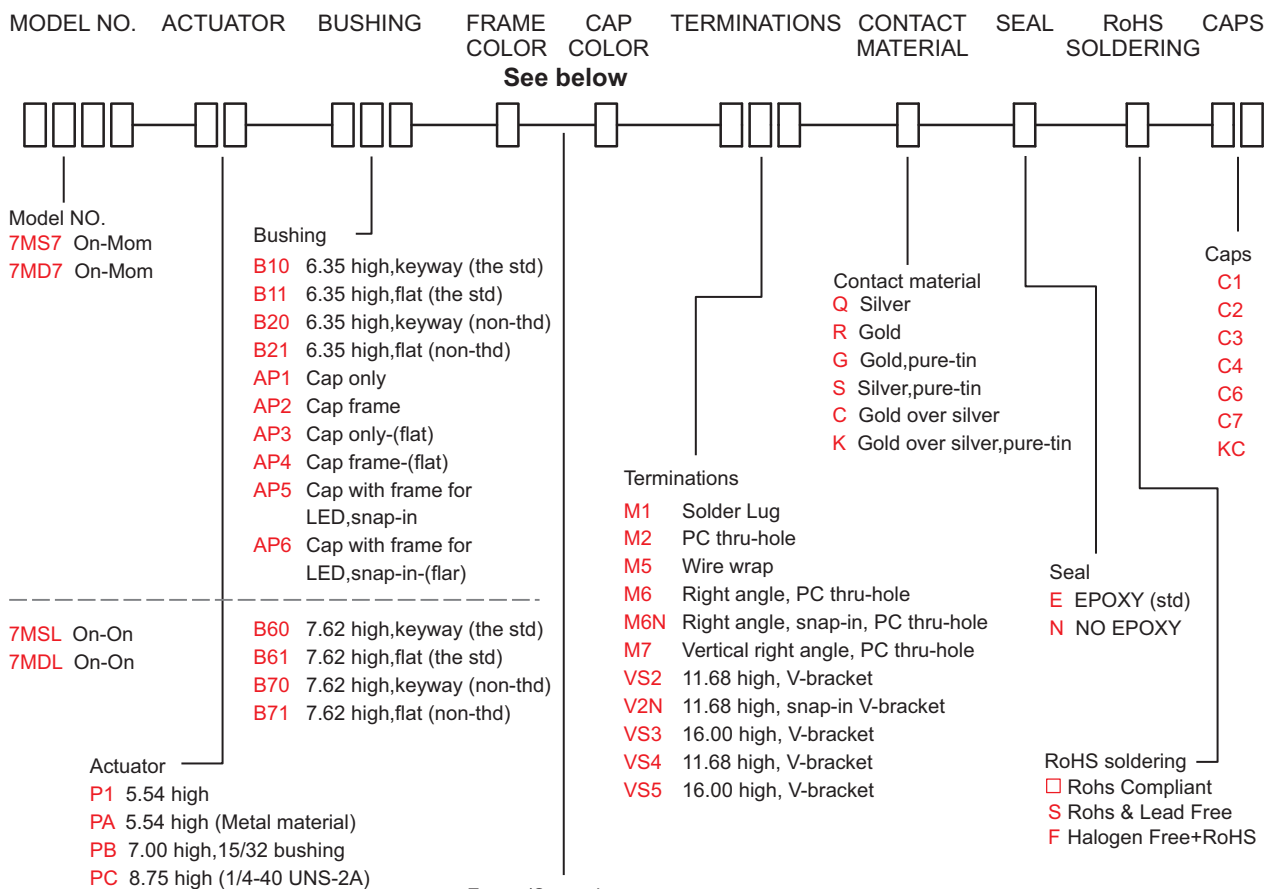
**PLUNGER:** Glass filled Nylon or Glass filled polyester.

**BUSHING:** Brass, nickel plated.

**HOUSING:** Stainless Steel.

**CONTACT:** Copper alloy, silver or gold plated. (See Page 107)

## HOW TO ORDER



| 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<br>                         | 1-2<br>     |
| DP        | Q2727            | 7MD7      | ON              | MOM   | 1-3,4-6<br>                     | 1-2,4-5<br> |

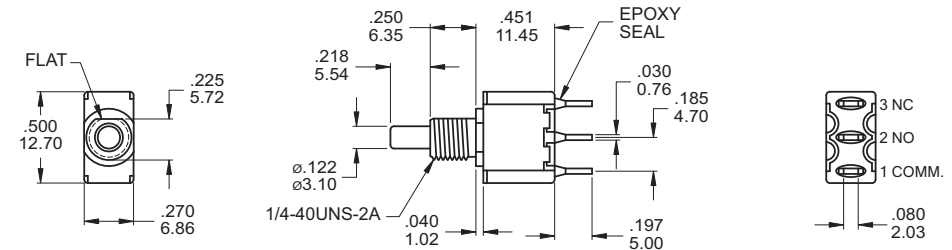
MOM=MOMENTARY

## POLE OPTIONS



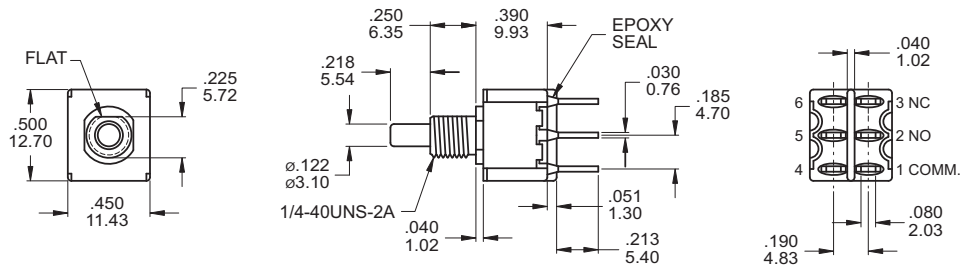
SPDT

Part No. Shown : 7MS7P1B11M1QE



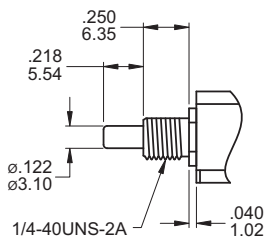
DPDT

Part No. Shown : 7MD7P1B11M1QE

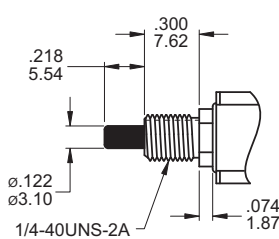


## ACTUATOR OPTIONS

P1

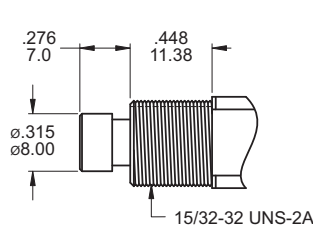


PA



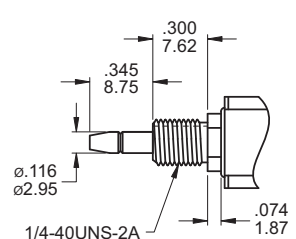
handle, metal material

PBB13



handle, metal material

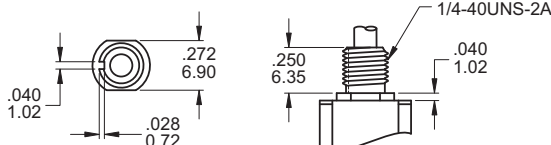
PCB60



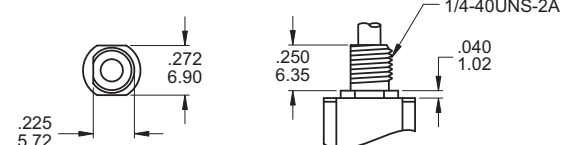
handle, metal material  
\* PC Actuator only for KC Cap

## BUSHING OPTIONS

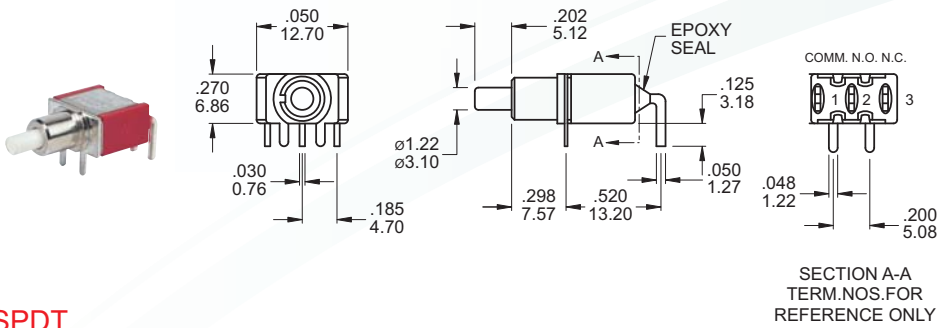
B10 THD STD  
B20 NON-THD



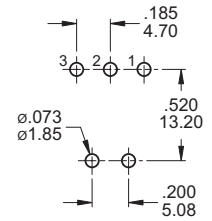
B11 THD STD  
B21 NON-THD



M6



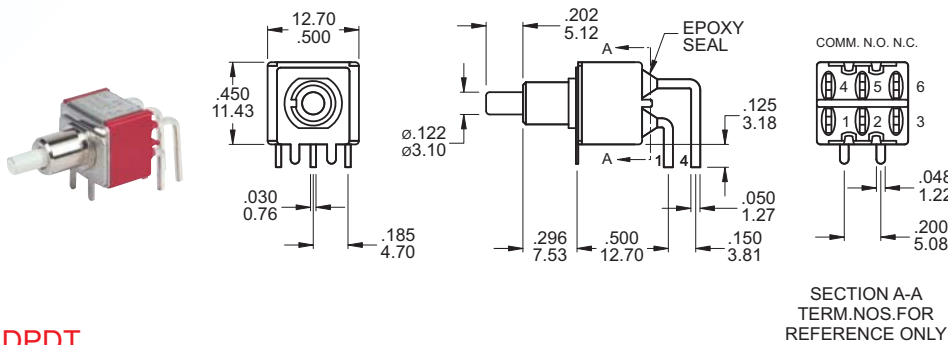
P.C. MOUNTING



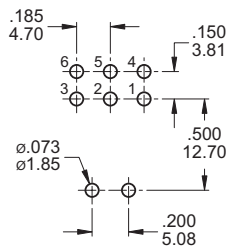
SPDT

Part No. Shown : 7MS7P1B20M6QE

M6



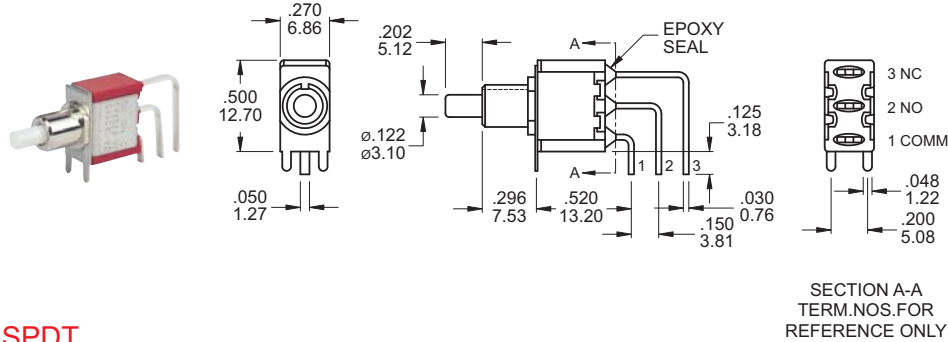
P.C. MOUNTING



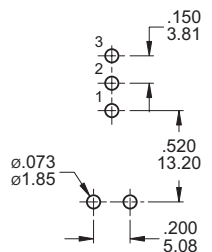
DPDT

Part No. Shown : 7MD7P1B20M6QE

M7



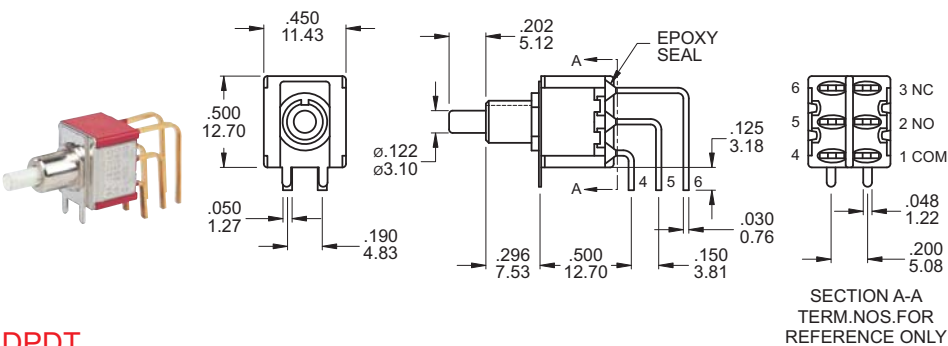
P.C. MOUNTING



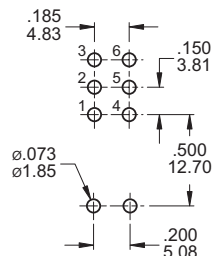
SPDT

Part No. Shown : 7MS7P1B20M7QE

M7



P.C. MOUNTING



DPDT

Part No. Shown : 7MD7P1B20M7RE

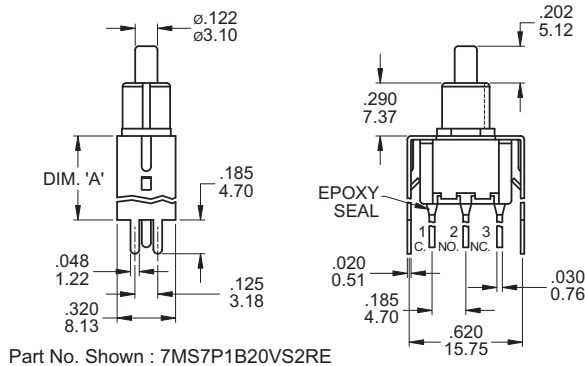
# 7M Series

Snap-Acting Pushbutton Switches

## VS2 - VS3

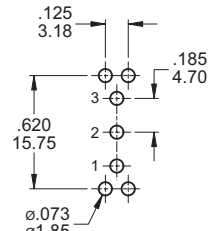


### SPDT



| OPTION CODE | DIM. 'A'      |
|-------------|---------------|
| VS2         | .460<br>11.68 |
| VS3         | .630<br>16.00 |

#### P.C. MOUNTING

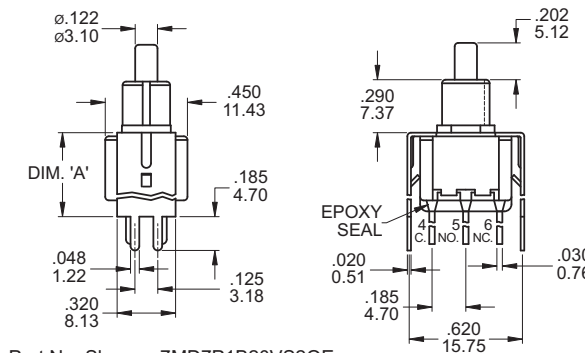


Part No. Shown : 7MS7P1B20VS2RE

## VS2 - VS3

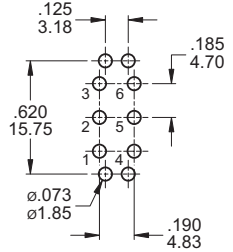


### DPDT



| OPTION CODE | DIM. 'A'      |
|-------------|---------------|
| VS2         | .460<br>11.68 |
| VS3         | .630<br>16.00 |

#### P.C. MOUNTING

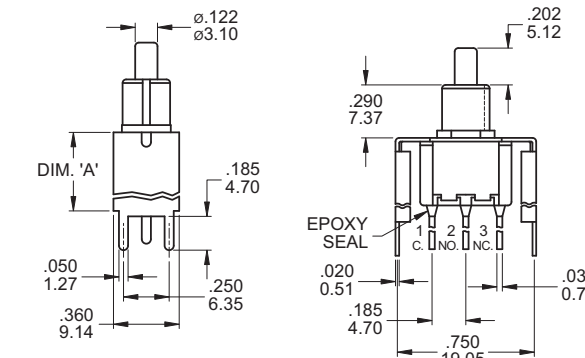


Part No. Shown : 7MD7P1B20VS2QE

## VS4 - VS5

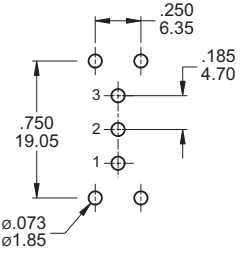


### DPDT



| OPTION CODE | DIM. 'A'      |
|-------------|---------------|
| VS4         | .460<br>11.68 |
| VS5         | .630<br>16.00 |

#### P.C. MOUNTING

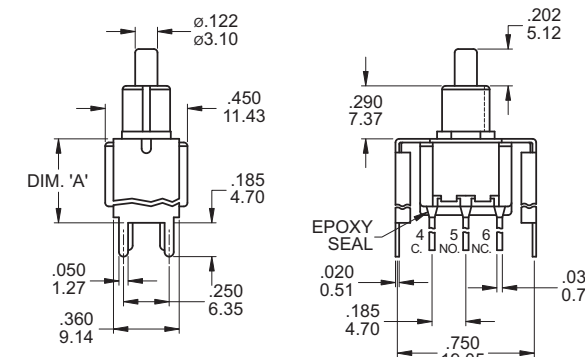


Part No. Shown : 7MS7P1B20VS4QE

## VS4 - VS5

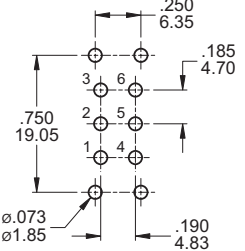


### DPDT



| OPTION CODE | DIM. 'A'      |
|-------------|---------------|
| VS4         | .460<br>11.68 |
| VS5         | .630<br>16.00 |

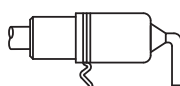
#### P.C. MOUNTING



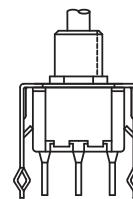
Part No. Shown : 7MD7P1B20VS4QE

## SNAP-IN TERMINATION OPTIONS

### M6N



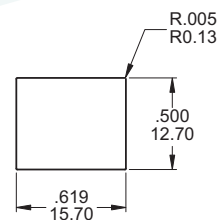
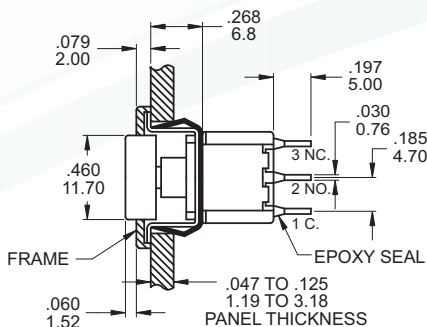
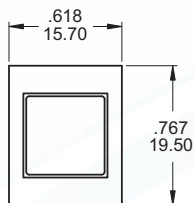
### V2N



7M  
Pushbutton Switches

## PANEL MOUNTING

### AP2 CAP & FRAME / AP1 CAP ONLY



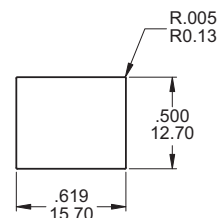
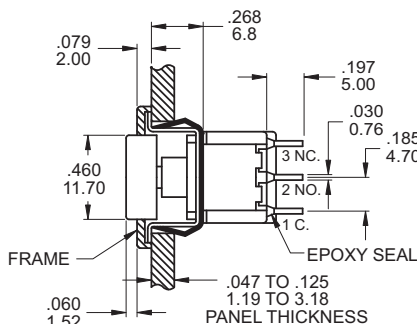
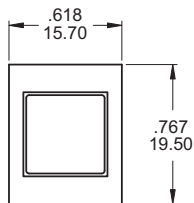
INCREASE TO .620/.625 15.75/15.88  
FOR .091/.125 2.31/3.18 THK PANEL

PANEL LAYOUT

SPDT

Part No. Shown : 7MS7AP223M1QE

### AP2 CAP & FRAME / AP1 CAP ONLY



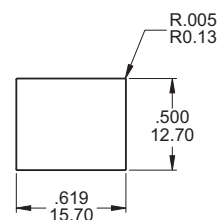
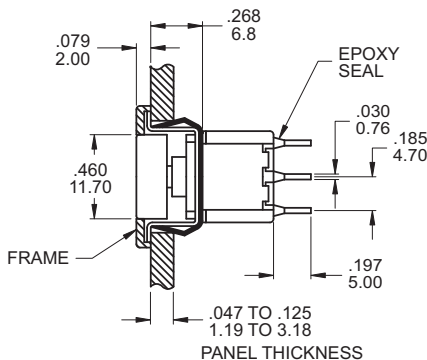
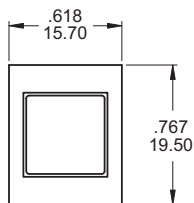
INCREASE TO .620/.625 15.75/15.88  
FOR .091/.125 2.31/3.18 THK PANEL

PANEL LAYOUT

DPDT

Part No. Shown : 7MD7AP223M1QE

### AP4 CAP & FRAME / AP3 CAP ONLY



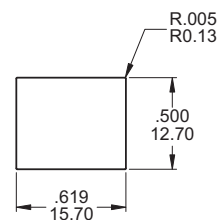
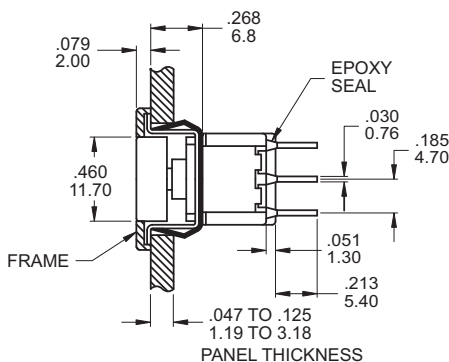
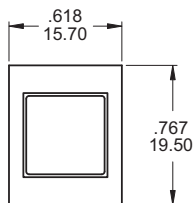
INCREASE TO .620/.625 15.75/15.88  
FOR .091/.125 2.31/3.18 THK PANEL

PANEL LAYOUT

SPDT

Part No. Shown : 7MS7AP429M1RE

### AP4 CAP & FRAME / AP3 CAP ONLY



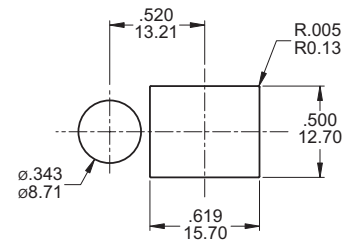
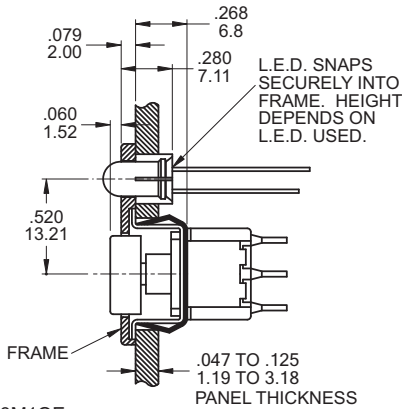
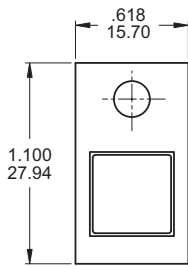
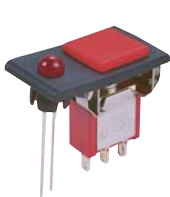
INCREASE TO .620/.625 15.75/15.88  
FOR .091/.125 2.31/3.18 THK PANEL

PANEL LAYOUT

DPDT

Part No. Shown : 7MD7AP423M1RE

## AP5 CAP & FRAME



PANEL LAYOUT

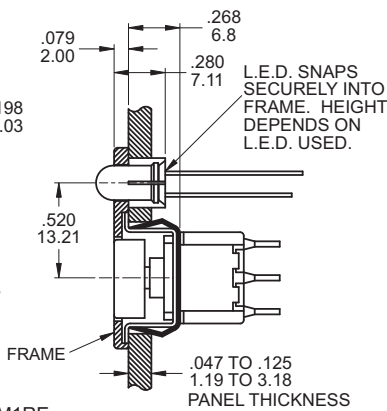
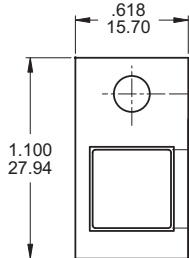
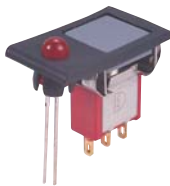
## SPDT

Part No. Shown : 7MS7AP523M1QE

## CAP AND FRAME COLORS

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

## AP6 CAP & FRAME



## LED COLORS

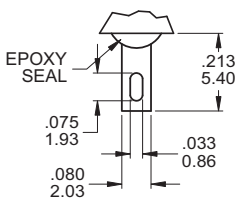
| OPTION CODE | COLOR    |
|-------------|----------|
| 3           | RED(std) |
| 4           | ORANGE   |
| 6           | GREEN    |

## DPDT

Part No. Shown : 7MS7AP629M1RE

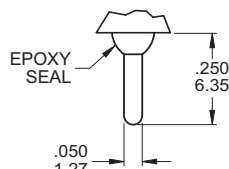
## TERMINATION OPTIONS

### M1 Solder lug



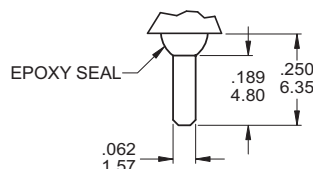
.030(0.76) THK.

### M2 PC Thru-hole



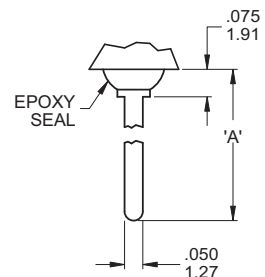
.030(0.76) THK.

### 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) |

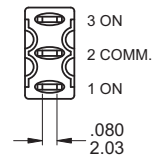
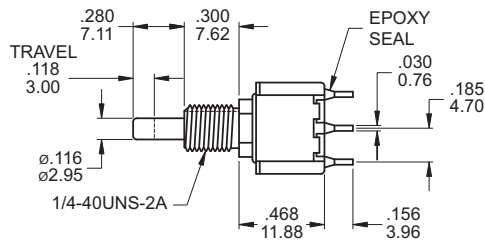
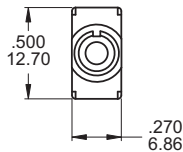


## SWITCH FUNCTION

| 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<br>                         | 2-3<br>     |
| DP        | Q27              | 7MDL      | ON              | ON    | 1-2,4-5<br>                     | 2-3,5-6<br> |

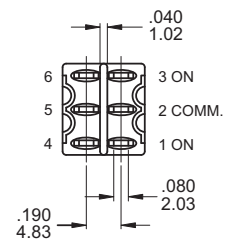
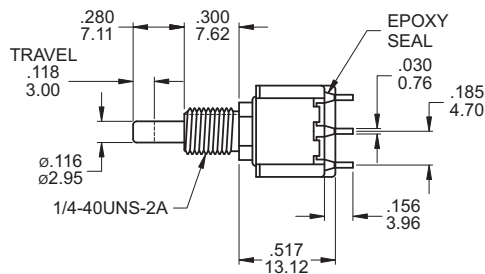
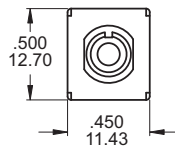
MOM=MOMENTARY

## POLE OPTIONS



SPDT

Part No. Shown : 7MSLP1B60M1QE

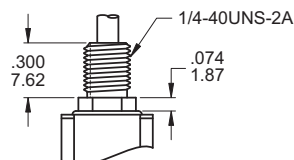
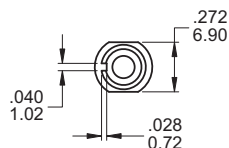


DPDT

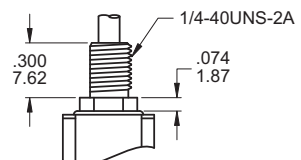
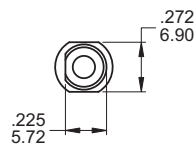
Part No. Shown : 7MDLP1B60M1QE

## BUSHING OPTIONS

B60 THD STD  
B70 NON-THD

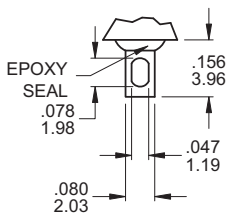


B61 THD STD  
B71 NON-THD



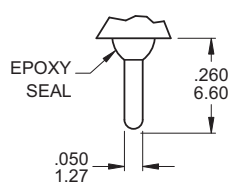
## TERMINATION OPTIONS

### M1 Solder lug



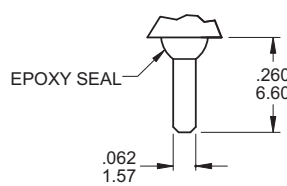
.030(0.76) THK.

### M2 PC Thru-hole



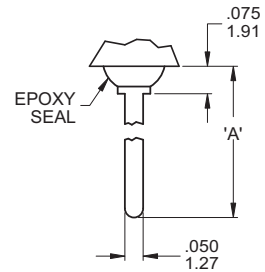
.030(0.76) THK.

### 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

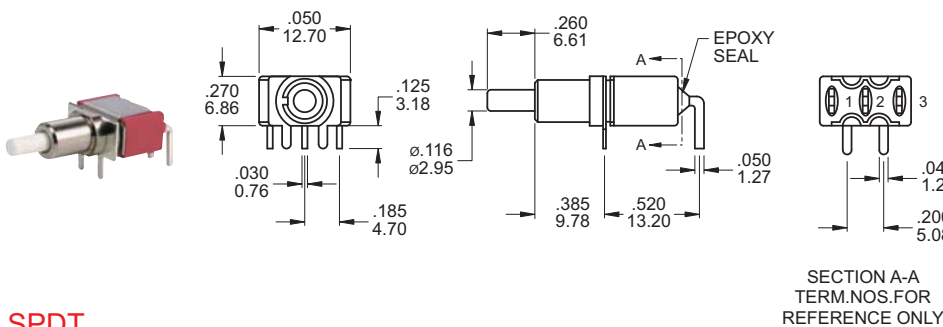
| OPTION CODE | DIM. 'A'     |
|-------------|--------------|
| M5-1        | .750 (19.50) |
| M5-2        | .964 (24.48) |
| M5-3        | .426 (10.80) |
| M5-4        | .650 (16.50) |



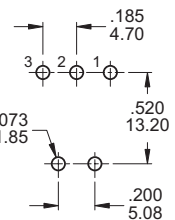
**7M(Lock)**  
Pushbutton Switches

## TERMINATION OPTIONS

### M6



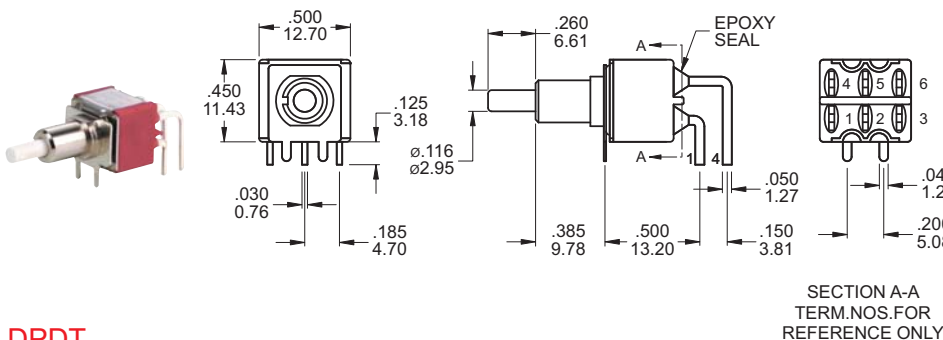
### P.C. MOUNTING



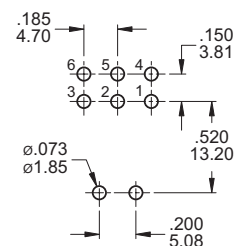
### SPDT

Part No. Shown : 7MSLP1B70M6QE

### M6



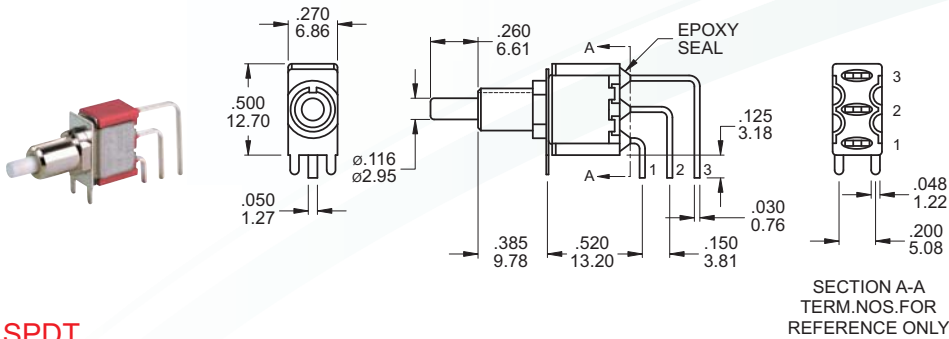
### P.C. MOUNTING



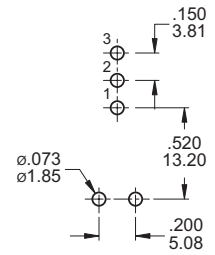
### DPDT

Part No. Shown : 7MDLP1B70M6QE

## M7



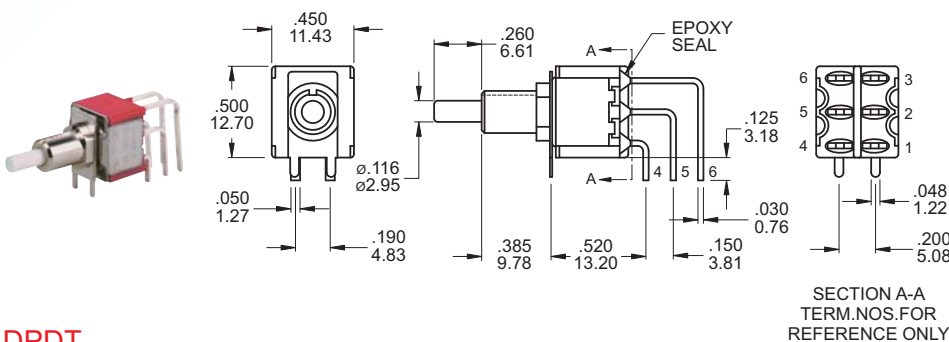
### P.C. MOUNTING



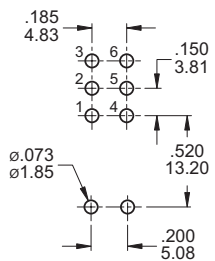
## SPDT

Part No. Shown : 7MSLP1B70M7QE

## M7



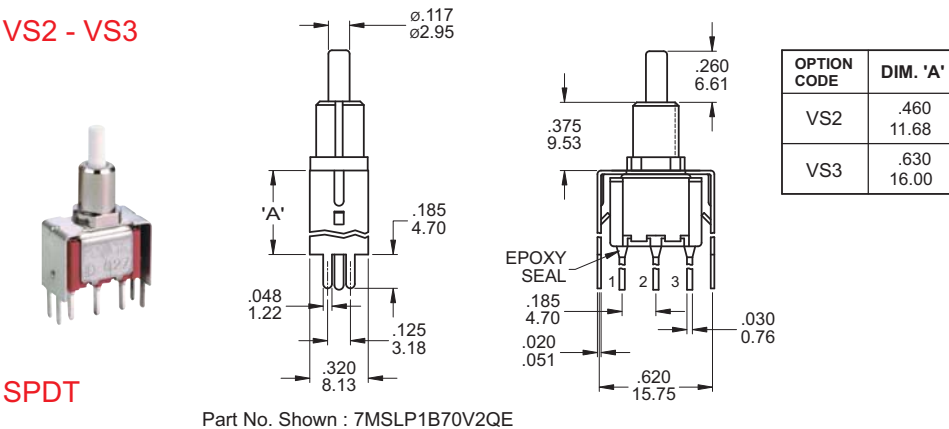
### P.C. MOUNTING



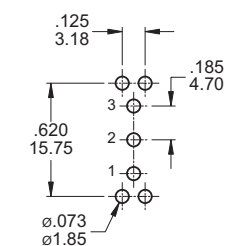
## DPDT

Part No. Shown : 7MDLP1B70M7QE

## VS2 - VS3



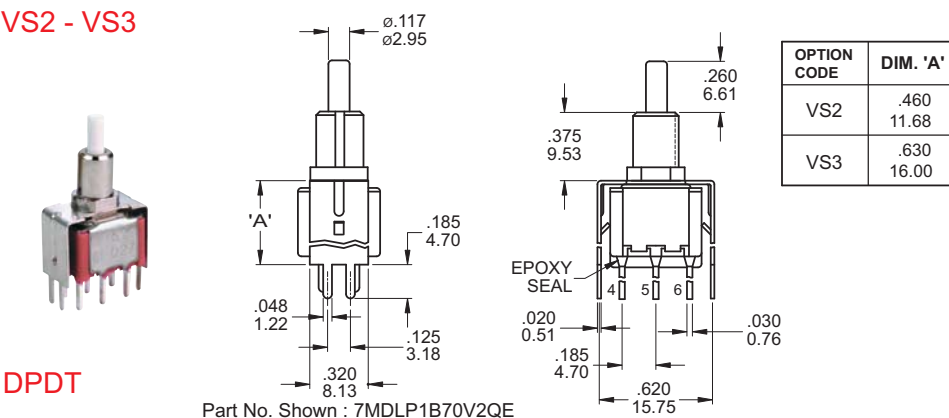
### P.C. MOUNTING



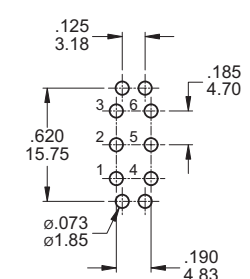
## SPDT

Part No. Shown : 7MSLP1B70V2QE

## VS2 - VS3



### P.C. MOUNTING



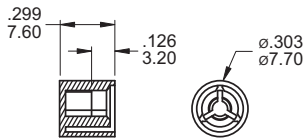
## DPDT

Part No. Shown : 7MDLP1B70V2QE

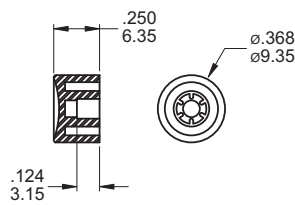
## CAP OPTIONS

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

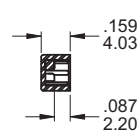
C1



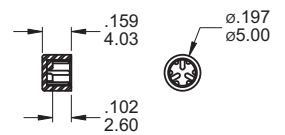
C2



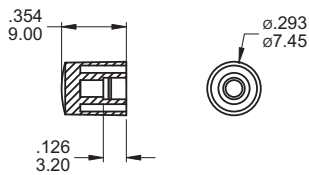
C3



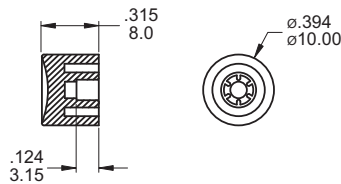
C4



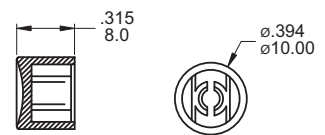
C6



C7

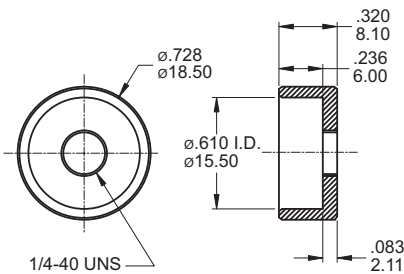


KC

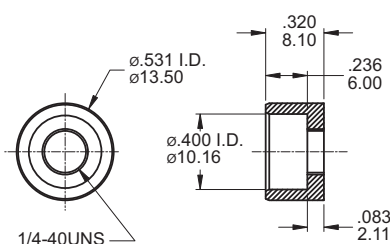


## DRESS NUTS

HDW21

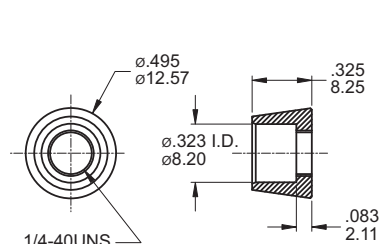


HDW22



FOR CAP:C2

HDW23



FOR CAP:C1

## CONTACT MATERIAL OPTIONS

|   | CONTACT PLATING  | TERMINAL PLATING                | RATINGS                                                                             |
|---|------------------|---------------------------------|-------------------------------------------------------------------------------------|
| Q | Silver           | Q = Silver                      | 3 Amps with resistant load @ 120VAC or 28VDC<br>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)

