

TACT  
SWITCHESNAVIGATION  
SWITCHESPUSHBUTTON  
SWITCHESTOGGLE  
SWITCHESROCKER  
SWITCHESSLIDE  
SWITCHESSNAP-ACTION  
SWITCHESDIP  
SWITCHESKEYLOCK  
SWITCHESROTARY  
SWITCHESDETECTOR  
SWITCHESCAP  
OPTIONS

# SERIES 100 SWITCHES

## TOGGLE SWITCHES - MINIATURE



### FEATURES & BENEFITS

- ▶ Up to 4 poles available
- ▶ Variety of switching functions
- ▶ Miniature
- ▶ Multiple actuator & bushing options

### APPLICATIONS/MARKETS

- ▶ Telecommunications
- ▶ Instrumentation
- ▶ Networking
- ▶ Medical equipment

### SPECIFICATIONS

|                        |                                                                                         |
|------------------------|-----------------------------------------------------------------------------------------|
| Contact Rating:        | See contact material options                                                            |
| Life Expectancy:       | 40,000 make-and-break cycles                                                            |
| Contact Resistance:    | 10 mΩ max. typical initial @ 2-4 VDC<br>100 mA for both silver and gold plated contacts |
| Insulation Resistance: | 1,000 MΩ min.                                                                           |
| Dielectric Strength:   | 1,000 V RMS @ sea level                                                                 |
| Operating Temperature: | -30° C to 85° C                                                                         |

### MATERIALS

|                       |                                    |
|-----------------------|------------------------------------|
| Case:                 | Diallyl Phthalate (DAP)            |
| Toggle Handle:        | Brass, chrome plated               |
| Switch Support:       | Brass or steel, tin plated         |
| Bushing:              | Brass, nickel plated               |
| Housing:              | Stainless steel                    |
| Contacts / Terminals: | Silver or gold plated copper alloy |



### HOW TO ORDER

| SERIES<br>100 | MODEL NO.<br>□ □ □ | ACTUATOR<br>□ □ | BUSHING<br>□ □ □ | TERMINATION<br>□ □ □ □ | CONTACT<br>MATERIAL<br>□ | SEAL<br>E | HARDWARE<br>□ |
|---------------|--------------------|-----------------|------------------|------------------------|--------------------------|-----------|---------------|
|               | SP1                | T1†             | B1               | M1                     | Q = Silver               | E = Epoxy | H = Hardware  |
|               | SP2*               | T2              | B2               | M2                     | R = Gold                 | Sealed at |               |
|               | SP3                | T3              | B3               | M3                     |                          | Base of   |               |
|               | SP4*               | T4              | B4               | M5                     |                          | Terminal  |               |
|               | SP5*               | T5              | B5               | M6                     |                          |           |               |
|               | DP1                | T6              | B6               | M61                    |                          |           |               |
|               | DP2*               | T7              | B8               | M7                     |                          |           |               |
|               | DP3                | T8              | B9               | M71                    |                          |           |               |
|               | DP4*               | T9              | B11              | VS2                    |                          |           |               |
|               | DP5*               | K1              | B12              | VS3                    |                          |           |               |
|               | DP6                | K2              | B13              | VS5*                   |                          |           |               |
|               | DP7*               |                 | B15              | M64*                   |                          |           |               |
|               | DP8*               | † Optional      | B16              | VS21*                  |                          |           |               |
|               | 3P1                | Toggle Cap      | B25**            | VS31*                  |                          |           |               |
|               | 3P2*               | (T1 Only):      | B26**            |                        |                          |           |               |
|               | 3P3                | T100-1 = White  |                  |                        |                          |           |               |
|               | 3P4*               | T100-2 = Black  |                  |                        |                          |           |               |
|               | 3P5*               |                 |                  |                        |                          |           |               |
|               | 4P1                |                 |                  |                        |                          |           |               |
|               | 4P2*               |                 |                  |                        |                          |           |               |
|               | 4P3                |                 |                  |                        |                          |           |               |
|               | 4P4*               |                 |                  |                        |                          |           |               |
|               | 4P5*               |                 |                  |                        |                          |           |               |
|               | 4P6                |                 |                  |                        |                          |           |               |
|               | 4P7*               |                 |                  |                        |                          |           |               |
|               | 4P8*               |                 |                  |                        |                          |           |               |



### Example Ordering Number

100-SP1-T4-B2-M1-R-E

Notes: \* Not available with the K1 and K2 actuator options.

\*\* Available only with the K1 and K2 actuator options.

Specifications subject to change without notice.



## SPDT



2 Comm.  
1 3

SCHEMATIC



| Model No.   | POS 1 | POS 2 | POS 3 |
|-------------|-------|-------|-------|
| SP-1        | ON    | NONE  | ON    |
| SP-2        | ON    | NONE  | (ON)  |
| SP-3        | ON    | OFF   | ON    |
| SP-4        | (ON)  | OFF   | (ON)  |
| SP-5        | ON    | OFF   | (ON)  |
| Term. Comm. | 2-3   | OPEN  | 2-1   |

( ) = Momentary

## DPDT



2 Comm. 5 Comm.  
1 3 4 6

SCHEMATIC



| Model No.   | POS 1    | POS 2 | POS 3    |
|-------------|----------|-------|----------|
| DP-1        | ON       | NONE  | ON       |
| DP-2        | ON       | NONE  | (ON)     |
| DP-3        | ON       | OFF   | ON       |
| DP-4        | (ON)     | OFF   | (ON)     |
| DP-5        | ON       | OFF   | (ON)     |
| DP-7        | ON       | ON    | (ON)     |
| DP-8        | (ON)     | ON    | (ON)     |
| Term. Comm. | 2-3, 5-6 | OPEN  | 2-1, 5-4 |

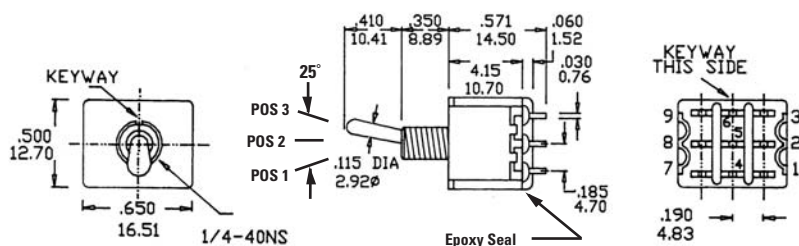
( ) = Momentary

## 3PDT



2 Comm. 5 Comm. 8 Comm.  
1 3 4 6 7 9

SCHEMATIC



| Model No.   | POS 1           | POS 2 | POS 3           |
|-------------|-----------------|-------|-----------------|
| 3P-1        | ON              | NONE  | ON              |
| 3P-2        | ON              | NONE  | (ON)            |
| 3P-3        | ON              | OFF   | ON              |
| 3P-4        | (ON)            | OFF   | (ON)            |
| 3P-5        | ON              | OFF   | (ON)            |
| Term. Comm. | 2-3, 5-6<br>8-9 | OPEN  | 2-1, 5-4<br>8-7 |

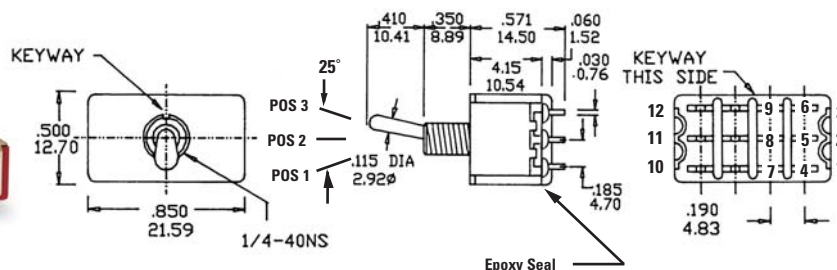
( ) = Momentary

## 4PDT



2 Comm. 5 Comm. 8 Comm. 11 Comm.  
1 3 4 6 7 9 10 12

SCHEMATIC



| Model No.   | POS 1                    | POS 2 | POS 3                    |
|-------------|--------------------------|-------|--------------------------|
| 4P-1        | ON                       | NONE  | ON                       |
| 4P-2        | ON                       | NONE  | (ON)                     |
| 4P-3        | ON                       | OFF   | ON                       |
| 4P-4        | (ON)                     | OFF   | (ON)                     |
| 4P-5        | ON                       | OFF   | (ON)                     |
| 4P-7        | ON                       | ON    | (ON)                     |
| 4P-8        | (ON)                     | ON    | (ON)                     |
| Term. Comm. | 2-3, 5-6<br>8-9<br>11-12 | OPEN  | 2-1, 5-4<br>8-7<br>11-10 |

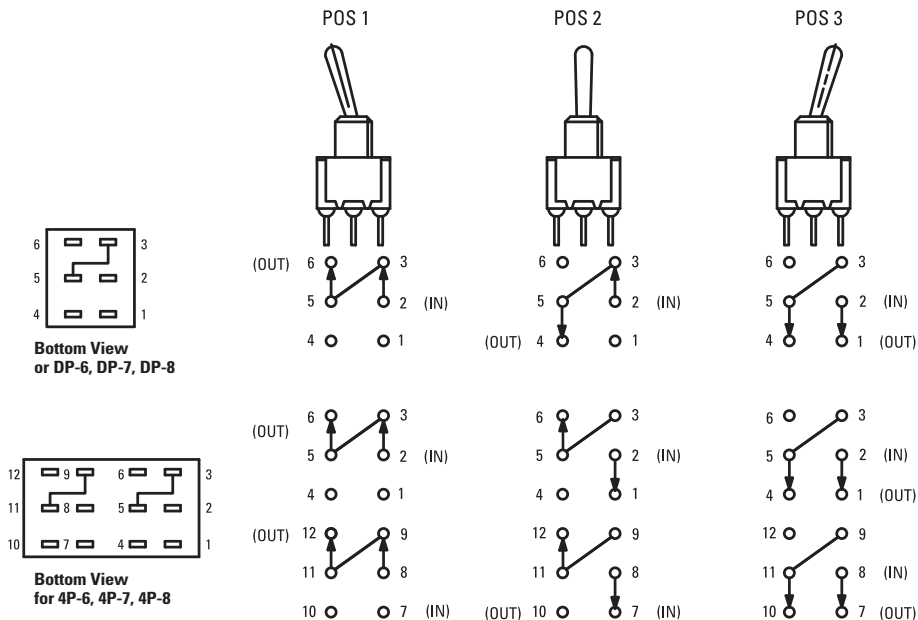
( ) = Momentary



# SERIES 100 SWITCHES

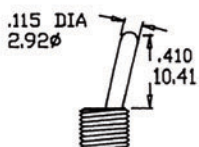
## TOGGLE SWITCHES - MINIATURE

### 3 - WAY WIRING DIAGRAM SCHEMATICS



### ACTUATOR OPTIONS

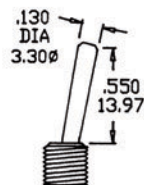
#### T1\* STANDARD



#### T2\*



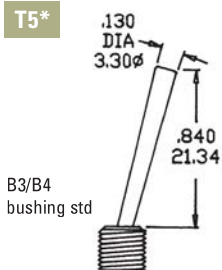
#### T3\*



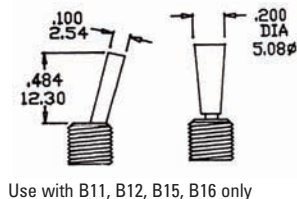
#### T4\*



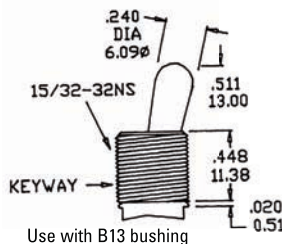
#### T5\*



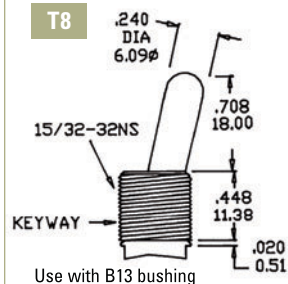
#### T6 FLATTED WITH BUILT IN ANTIROTATION



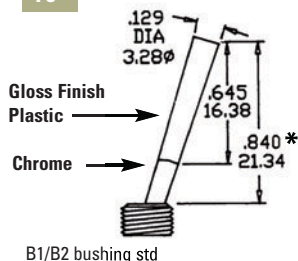
#### T7



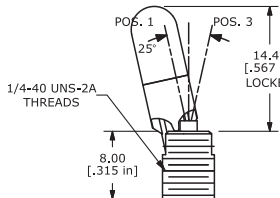
#### T8



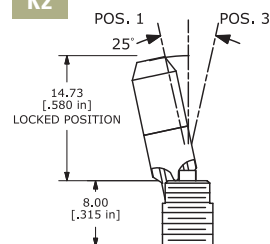
#### T9\* PLASTIC BLACK



#### K1



#### K2



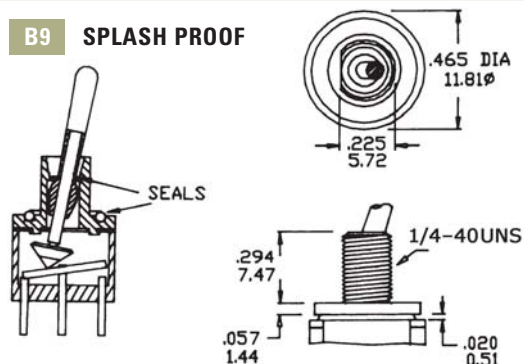
\* Add .070 (1.78) for B3, B4 bushings, subtract .020 (0.51) for B6 bushing.



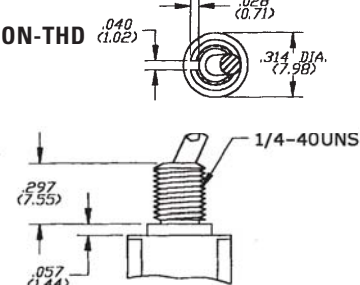
## BUSHING OPTIONS

**B1 THD STD****B2 NON-THD****B3 THD STD****B4 NON-THD**

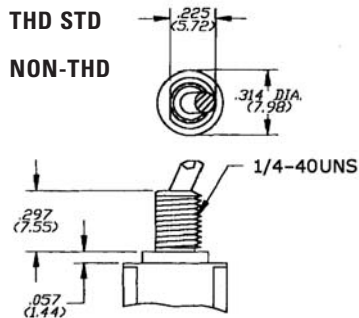
B4 is standard for M6, M7 and VS termination options.

**B5 HIGH TORQUE****B6 HIGH TORQUE****B8 METRIC THD****B9 SPLASH PROOF****B13**

Use with T7 and T8 actuators only

**B11 THD STD****B12 NON-THD**

Use with T6 actuator only

**B15 THD STD****B16 NON-THD**

Use with T6 actuator only

**B25****B26**



TACT  
SWITCHES

NAVIGATION  
SWITCHES

PUSHBUTTON  
SWITCHES

TOGGLE  
SWITCHES

ROCKER  
SWITCHES

SLIDE  
SWITCHES

SNAP-ACTION  
SWITCHES

DIP  
SWITCHES

KEYLOCK  
SWITCHES

ROTARY  
SWITCHES

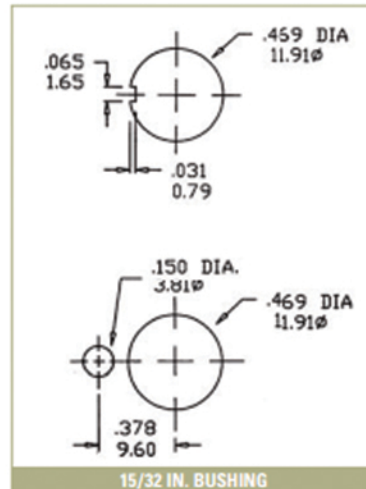
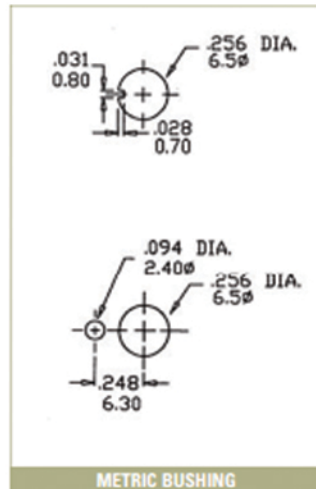
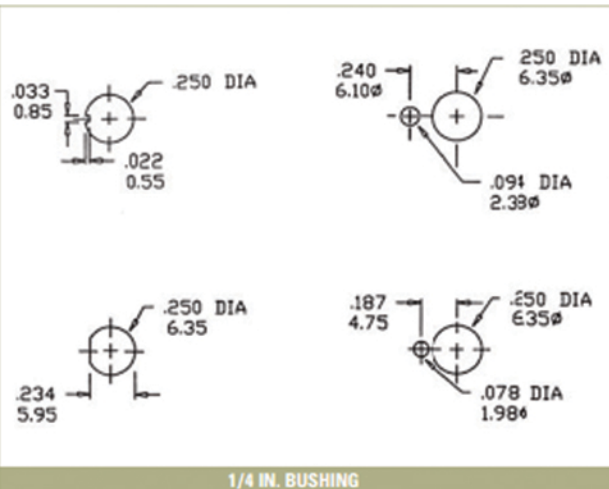
DETECTOR  
SWITCHES

CAP  
OPTIONS

# SERIES 100 SWITCHES

## TOGGLE SWITCHES - MINIATURE

### BUSHING OPTIONS - PANEL MOUNTING



### TERMINATION OPTIONS

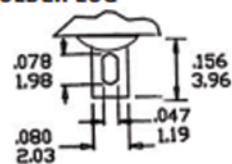
#### M2

##### SPDT



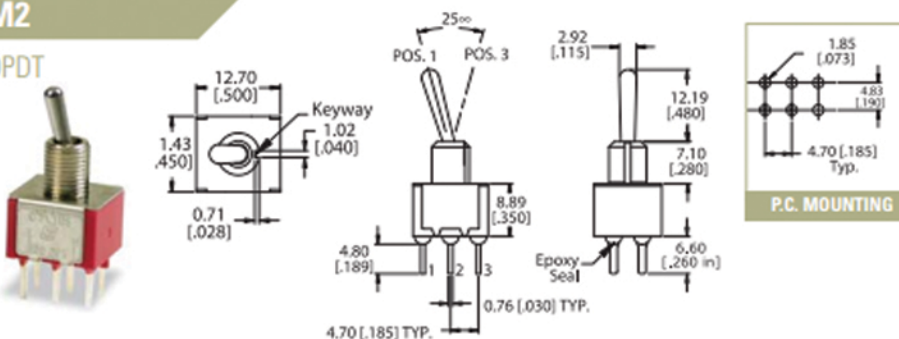
#### M1

##### SOLDER LUG



#### M2

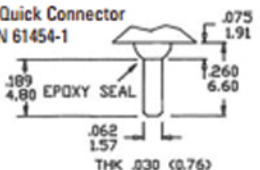
##### DPDT



#### M3

##### QUICK CONNECT

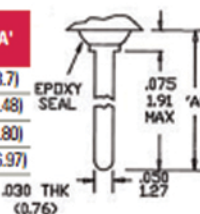
Mating Quick Connector  
Amp P/N 61454-1



#### M5

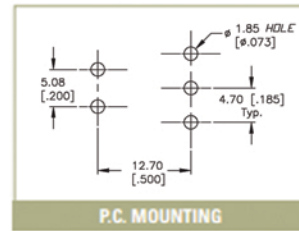
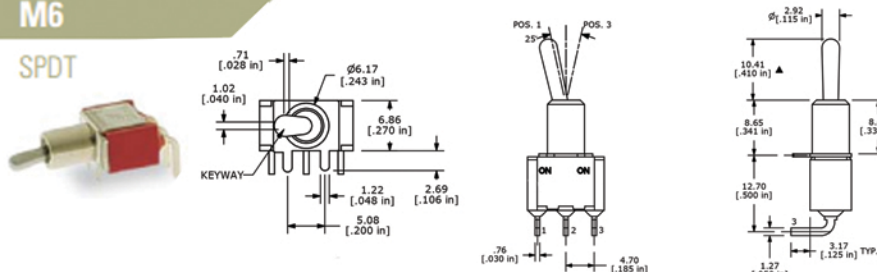
##### WIRE WRAP

| Option Code | Dim. 'A'      |
|-------------|---------------|
| M51         | .750 (18.7)   |
| M52         | .964 (24.48)  |
| M53         | .425 (10.80)  |
| M54         | 1.062 (26.97) |



#### M6

##### SPDT



**M6**

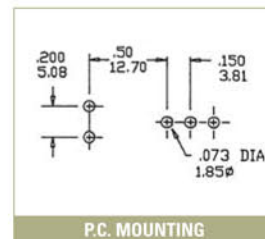
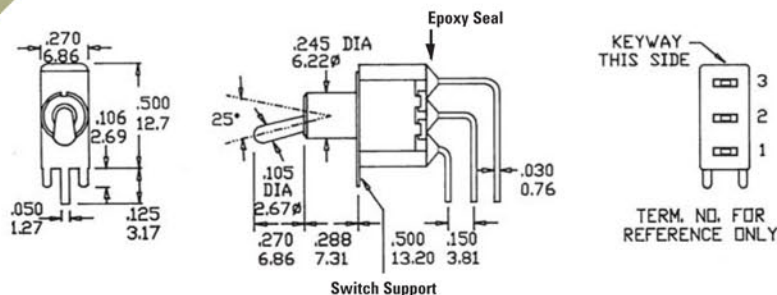
DPDT



P.C. MOUNTING

**M7**

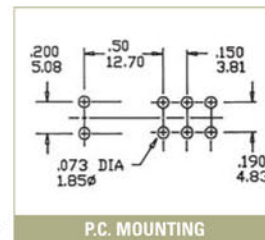
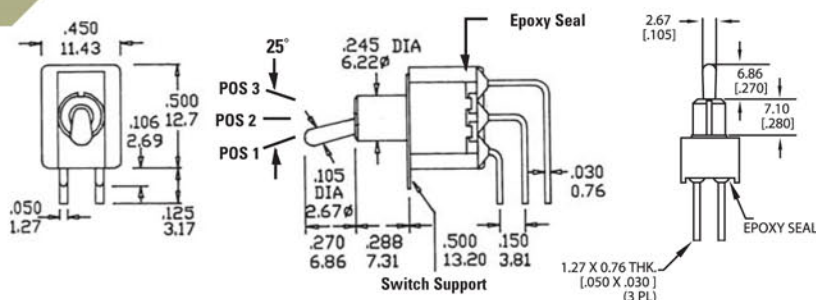
SPDT



P.C. MOUNTING

**M7**

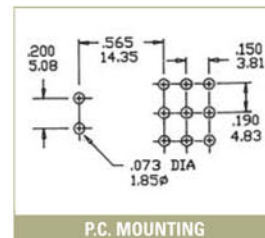
DPDT



P.C. MOUNTING

**M7**

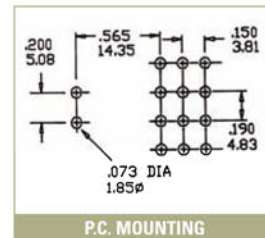
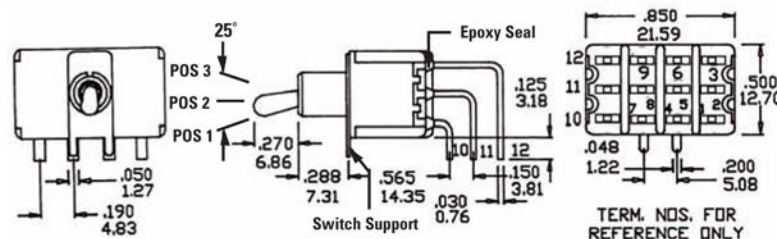
3PDT



P.C. MOUNTING

**M7**

4PDT



P.C. MOUNTING



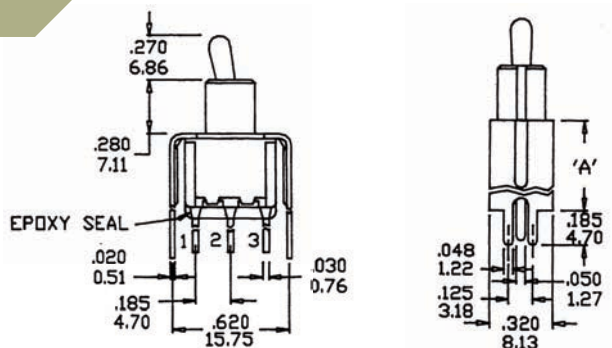
# SERIES 100 SWITCHES

## TOGGLE SWITCHES - MINIATURE

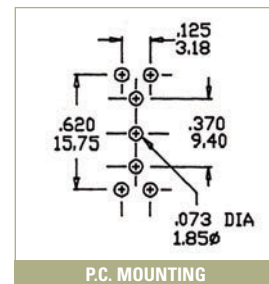
TACT  
SWITCHESNAVIGATION  
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SWITCHESTOGGLE  
SWITCHESROCKER  
SWITCHESSLIDE  
SWITCHESSNAP-ACTION  
SWITCHESDIP  
SWITCHESKEYLOCK  
SWITCHESROTARY  
SWITCHESDETECTOR  
SWITCHESCAP  
OPTIONS

### VS2-VS3

SPDT



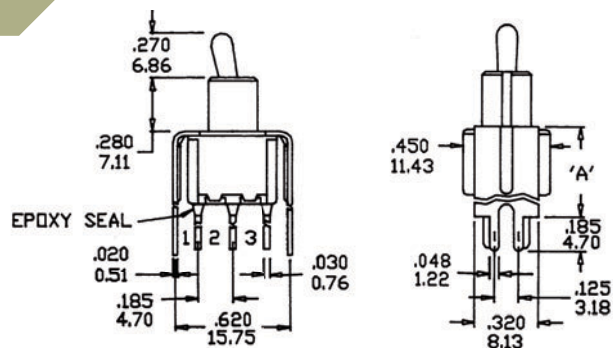
| Option Code | Dim. 'A'     |
|-------------|--------------|
| VS2         | .460 (11.68) |
| VS3         | .630 (16.00) |



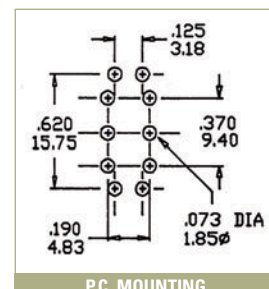
P.C. MOUNTING

### VS2-VS3

DPDT



| Option Code | Dim. 'A'     |
|-------------|--------------|
| VS2         | .460 (11.68) |
| VS3         | .630 (16.00) |



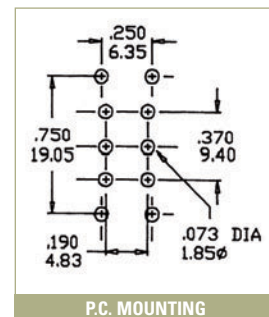
P.C. MOUNTING

### VS5

DPDT



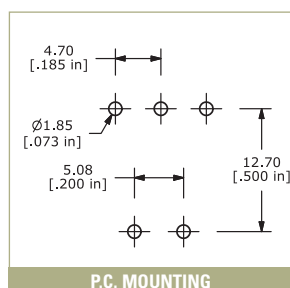
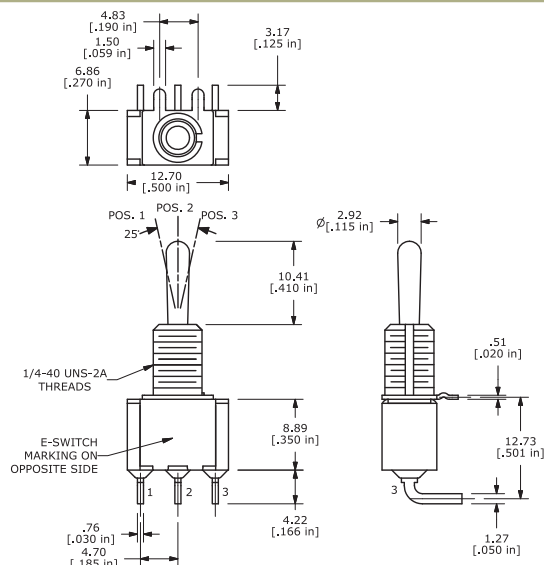
| Option Code | Dim. 'A'     |
|-------------|--------------|
| VS5         | .630 (16.00) |



P.C. MOUNTING

### M61

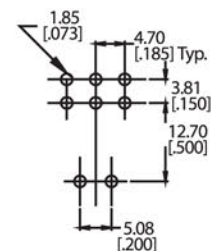
SPDT



P.C. MOUNTING

**M61**

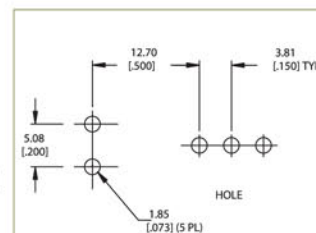
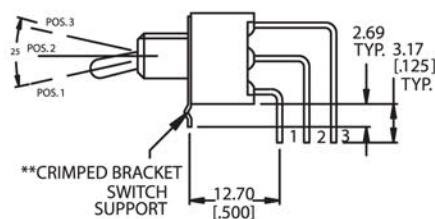
DPDT



P.C. MOUNTING

**M71**

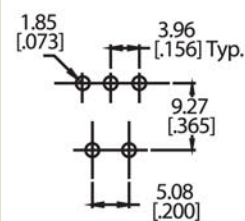
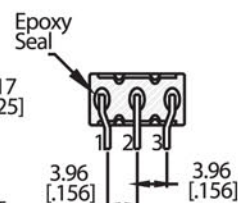
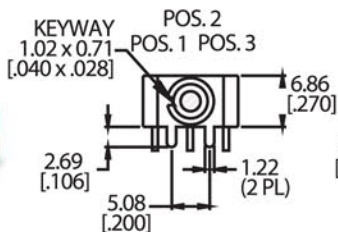
SPDT



P.C. MOUNTING

**M64**

SPDT



P.C. MOUNTING



# SERIES 100 SWITCHES

## TOGGLE SWITCHES - MINIATURE

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SWITCHESDETECTOR  
SWITCHESCAP  
OPTIONS

### VS21-VS31

SPDT



| Option Code | Dim. 'A'     |
|-------------|--------------|
| VS2         | .460 (11.68) |
| VS3         | .630 (16.00) |



P.C. MOUNTING

### VS21-VS31

DPDT



| Option Code | Dim. 'A'     |
|-------------|--------------|
| VS2         | .460 (11.68) |
| VS3         | .630 (16.00) |



P.C. MOUNTING

### OPTIONAL TOGGLE CAP



Use with T1  
T100-1 WHITE  
T100-2 BLACK



### CONTACT MATERIAL OPTIONS

Q

|                 |                                                                                      |
|-----------------|--------------------------------------------------------------------------------------|
| Fixed Terminal: | Silver plated over copper alloy                                                      |
| Moving Contact: | Silver plated over copper alloy                                                      |
| Rating:         | 5 Amps with resistive load @ 120VAC or 28VDC;<br>2 Amps with resistive load @ 250VAC |

R

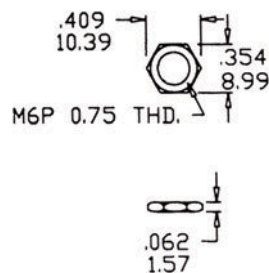
|                 |                                                |
|-----------------|------------------------------------------------|
| Fixed Terminal: | Copper alloy with gold plate over nickel plate |
| Moving Contact: | Copper alloy with gold plate over nickel plate |
| Rating:         | 0.4 Volt-Amps (VA) max. @ 20V max. (AC or DC)  |



## HARDWARE

**HDW2 1/4 IN. NUTS**

Supplied standard with  
B1, B3, B5, B6 and B9 options

**HDW3 BLIND DRESSNUT****HDW6 METRIC NUT**

Supplied standard with B8  
metric bushing

**HDW11 LOCK WASHER**

Supplied standard with B1/B3  
bushing

**Optional Rubber Hood  
Sealing E1**

E1= Inch (Std.) for actuator T1, T2 and bushings  
B1, B3, B5, B6 Optional rubber boot sealing

**HDW4 15/32 IN. NUTS**

Supplied standard with B13 bushing

**HDW12 LOCK WASHER**

Supplied standard with B13 bushing

**HDW15 LOCKING RING**

Supplied standard

**HDW16 LOCKING RING**

Supplied with B5 bushing

**HDW17 LOCKING RING**

Supplied with B13 bushing

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