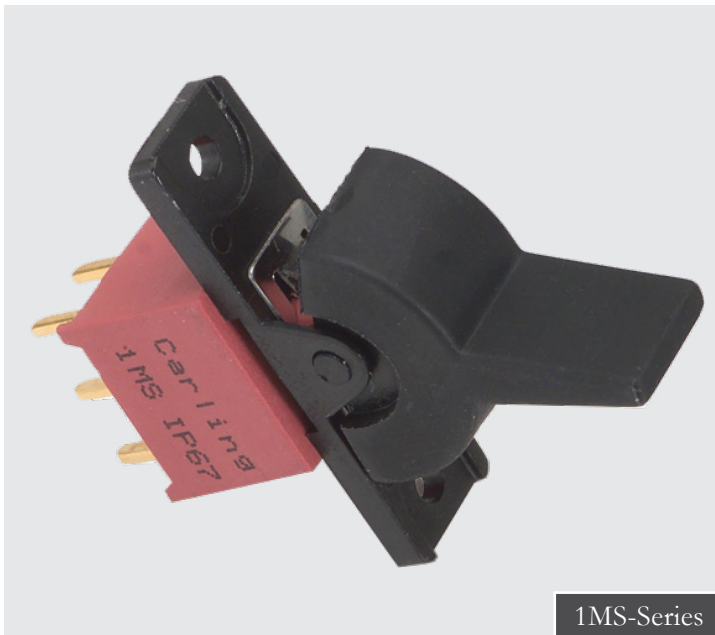


# 1MS/1M1

## 1M-Series

### MINIATURE ROCKERS & PADDLES

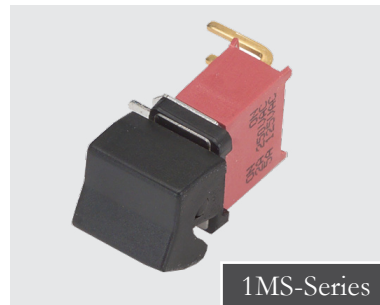
The 1M family of miniature rocker & paddle switches is composed of two switch series; the **1M1-Series** miniature rocker and paddle switch, and the **1MS-Series** sealed miniature rocker and paddle switch. Both products feature PC mounting and offer a variety of ratings, circuits, contact materials, terminal platings, rocker and paddle actuator styles and colors.



1MS-Series



1M1-Series



1MS-Series

#### Product Highlights:

- IP67 Sealing
- 9 Circuit Options
- Over 20 Termination Styles
- UL, CSA & cUL Approvals

#### Typical Applications:

- Instrumentation
- Test Equipment
- Telecommunications
- Networking
- Handheld Appliance

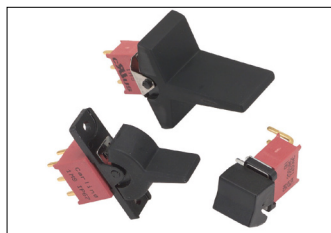


**Carling Technologies®**

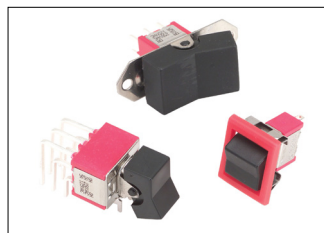
Innovative Designs. Powerful Solutions.

# Techna

[www.techna.co.uk](http://www.techna.co.uk)



**1MS-Series**  
**Sealed**  
 Miniature Rocker  
 & Rocker Switch



**1M1-Series**  
 Miniature Rocker  
 & Rocker Switch

**Electrical**

Contact Rating	refer to ordering scheme
Electrical Life	<i>1MS-Series:</i> 30,000 make & break cycles @ full load <i>1M1-Series:</i> 50,000 make & break cycles @ full load
Contact Resistance	10 mΩ max. initial @ 2-4 VDC 100mA for both silver & gold plated contacts
Insulation Resistance	1000 MΩ min.
Dielectric Strength	1500 Volts RMS @ sea level

**Physical**

Operating Temperature	-30°C to +85°C
Index of Protection	1MS-Series: IP67
Solder Heat Resistance	MIL-STD-202, Method 210
Actuator Travel	25°

**Material**

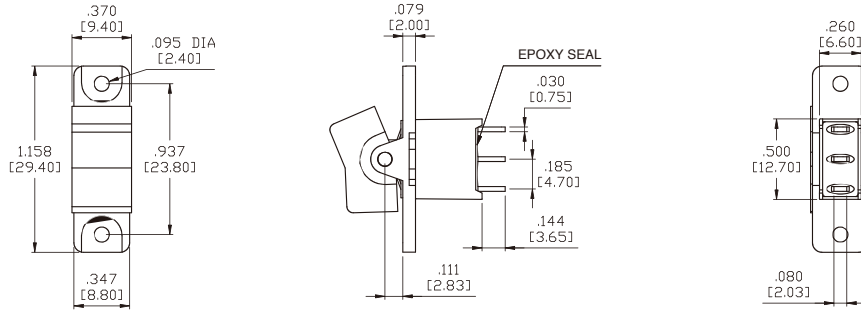
Case	<i>1MS-Series:</i> Glass filled nylon 6/6, flame retardant, heat stabilized (UL 94V-0) <i>1M1-Series:</i> Dially phthalate (DAP) (UL 94V-0)
Rocker/Paddle	<i>1MS-Series:</i> Nylon, black standard, internal o-ring sealed <i>1M1-Series:</i> Nylon (UL 94V-0)
Bushing	<i>1MS-Series:</i> Glass filled nylon 6/6, flame retardant, heat stabilized (UL 94V-0) <i>1M1-Series:</i> Brass, nickel plated
Housing	<i>1MS-Series:</i> Spring Steel <i>1M1-Series:</i> Stainless Steel
Actuator Pivot & Mounting Bracket	<i>1MS-Series:</i> Nylon (UL 94V-0) <i>1M1-Series:</i> Stainless Steel
Actuator Pivot Retainer	<i>1MS-Series:</i> Stainless Steel
Switch Support	Brass, tin plated
Terminal Seal	Epoxy

\*Manufacturer reserves the right to change product specification without prior notice.

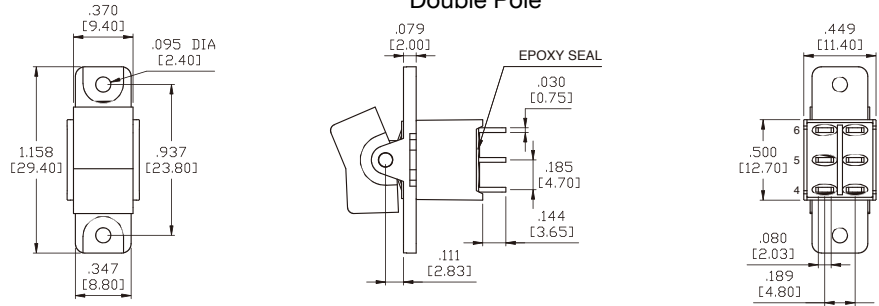


## 1MS-Series Dimensional Specifications: in. [mm]

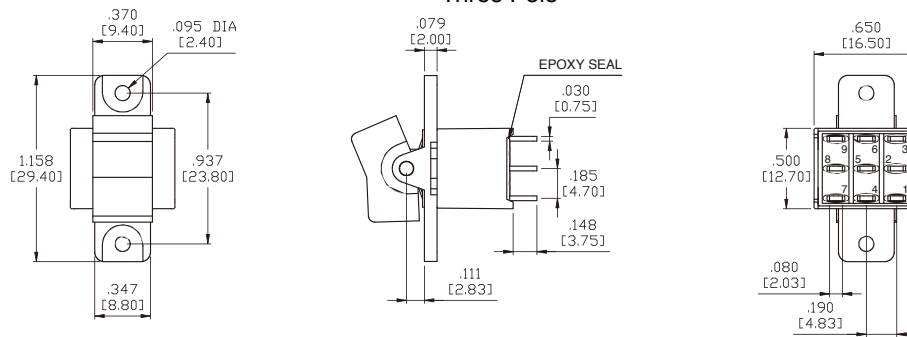
### Single Pole



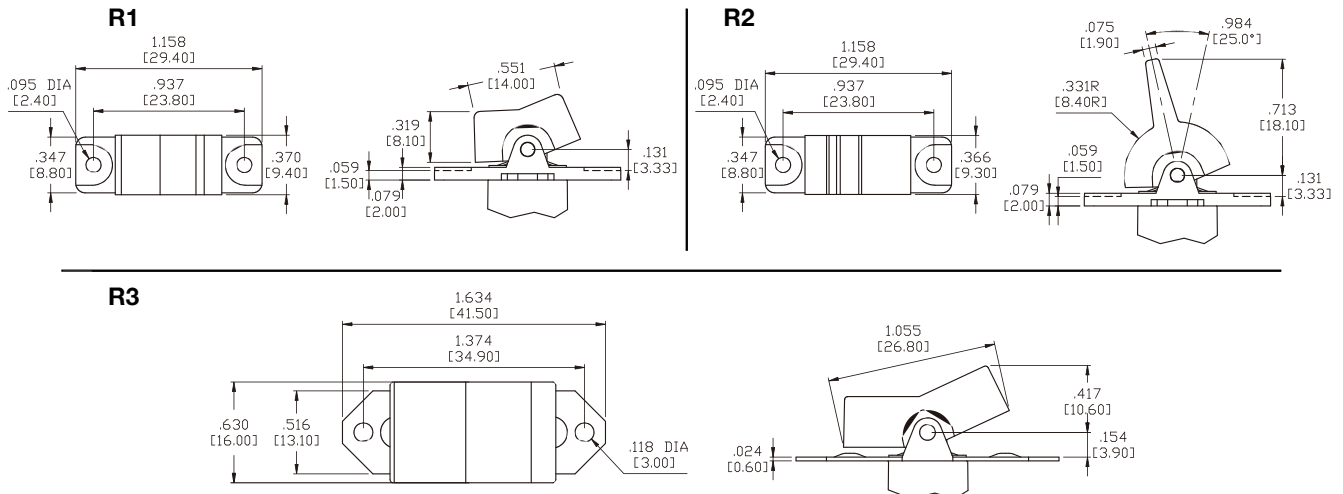
### Double Pole



### Three Pole



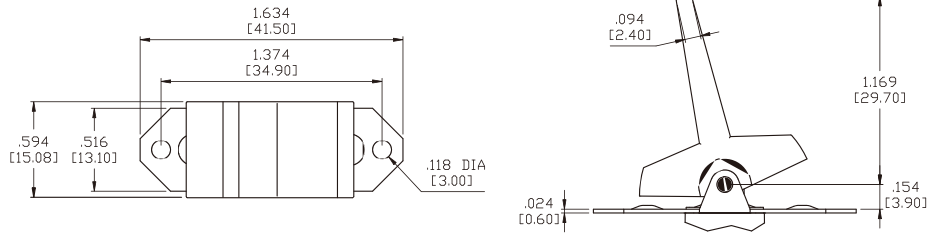
### Actuator Options for Panel Rear Mount



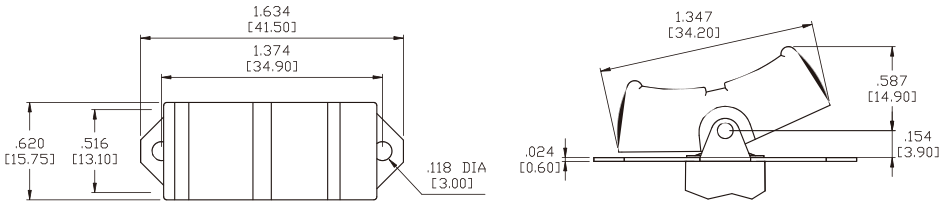
## 1MS-Series Dimensional Specifications: in. [mm]

### Actuator Options for Panel Rear Mount

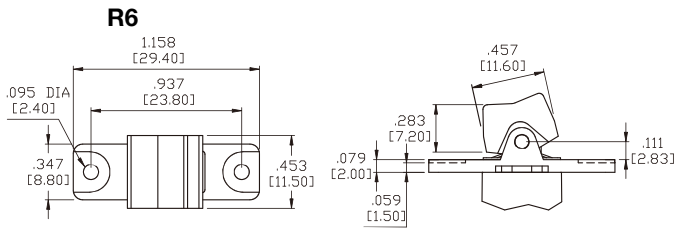
**R4**



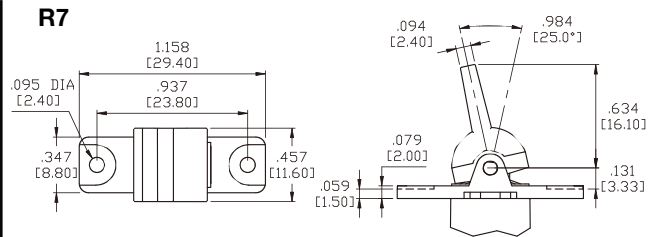
**R5**



**R6**

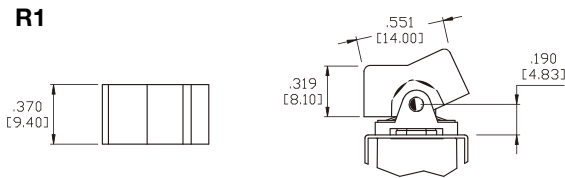


**R7**

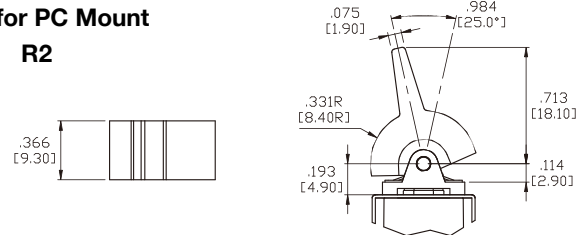


### Actuator Options for PC Mount

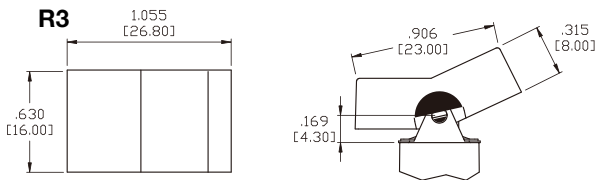
**R1**



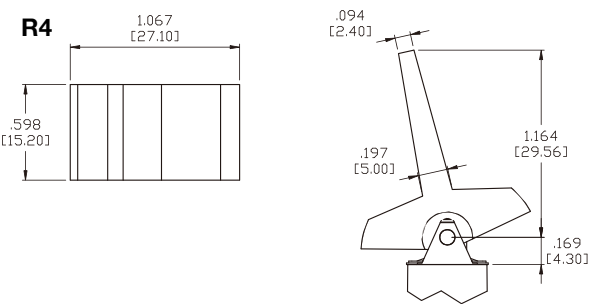
**R2**



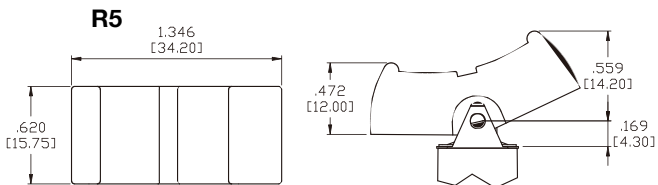
**R3**



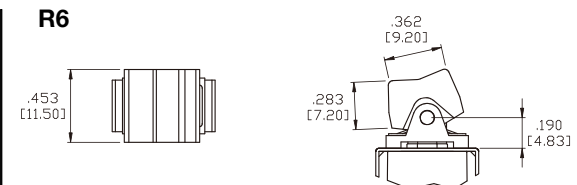
**R4**



**R5**



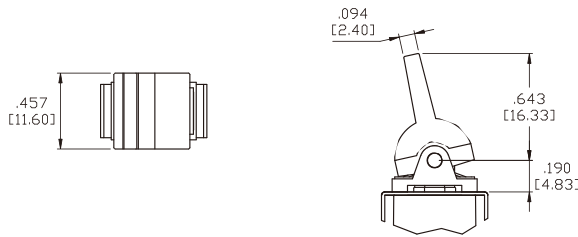
**R6**



# 1MS-Series Dimensional Specifications: in. [mm]

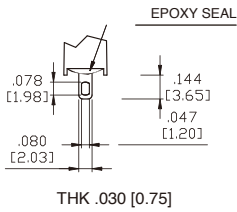
## Actuator Options for PC Mount

R7

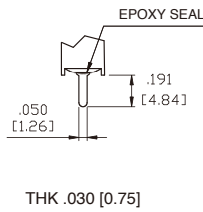


## Termination Options

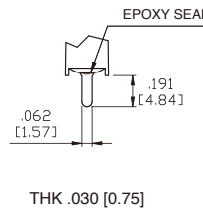
### M1 Standard Solder Lug



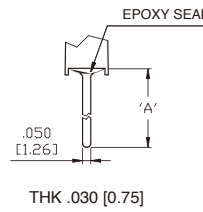
### M2 PC Thru-Hole



### M3 Quick Connect

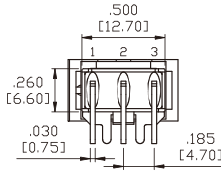
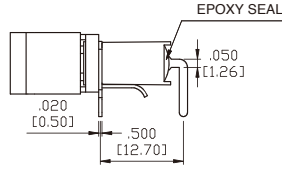
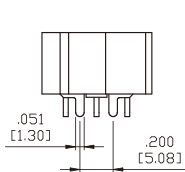


### M5 Wire Wrap

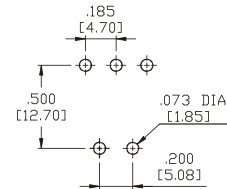


OPTION CODE	DIM. 'A'
M5-1	.711 [18.05]
M5-2	.924 [23.48]
M5-3	.386 [9.80]
M5-4	1.022 [25.97]

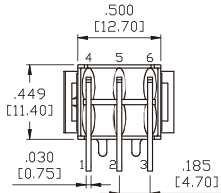
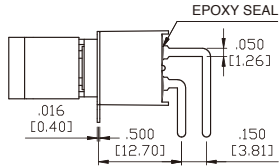
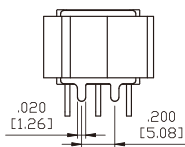
### M6 Single Pole



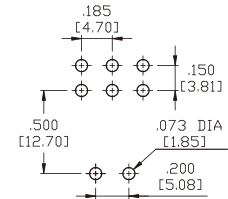
### P.C.MOUNTING



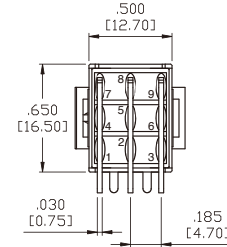
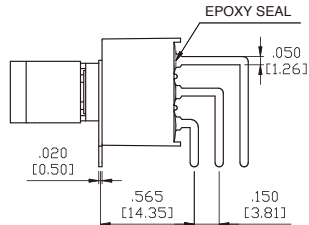
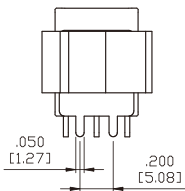
### M6 Double Pole



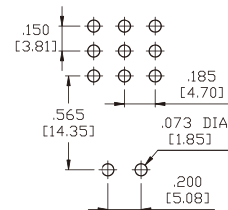
### P.C.MOUNTING



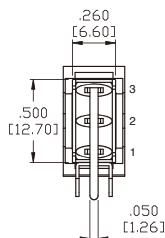
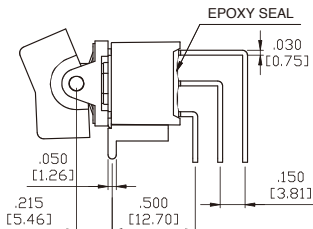
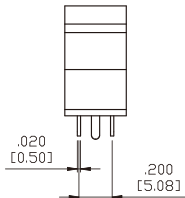
### M6 Three Pole



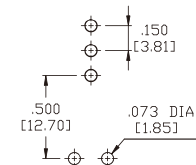
### P.C.MOUNTING



### M7 Single Pole



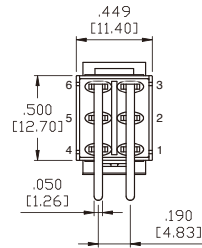
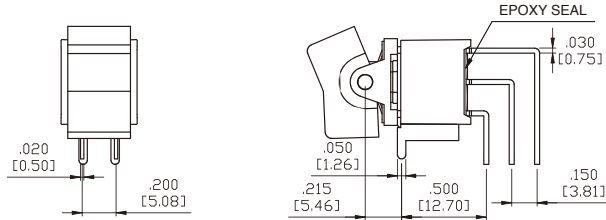
### P.C.MOUNTING



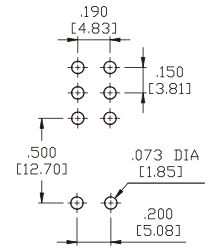
# 1MS-Series Dimensional Specifications: in. [mm]

## Termination Options

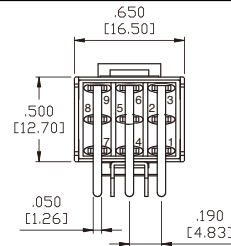
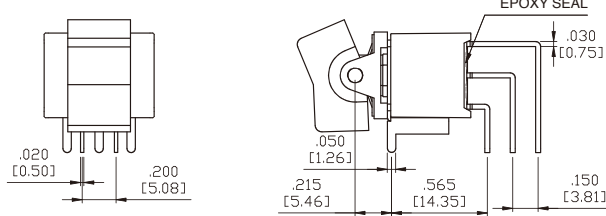
### M7 Double Pole



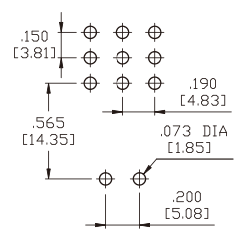
### P.C.MOUNTING



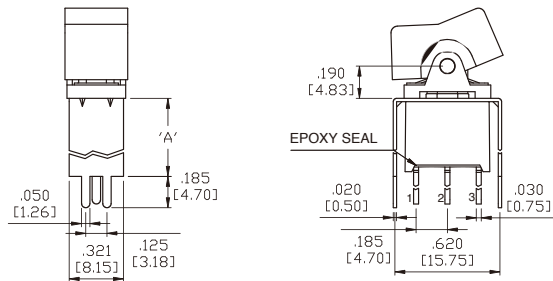
### M7 Three Pole



### P.C.MOUNTING

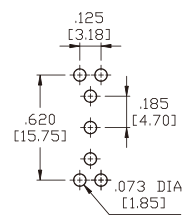


### VS2-VS3 Single Pole

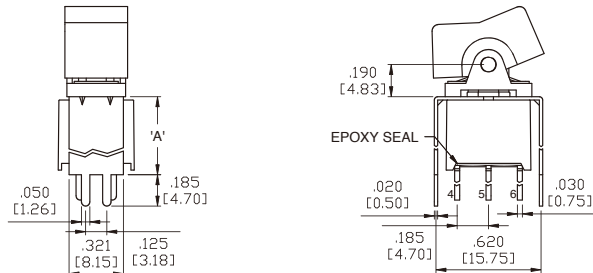


OPTION CODE	DIM.'A'
<b>VS2</b>	.461 [11.70]
<b>VS3</b>	.630 [16.00]

### P.C.MOUNTING

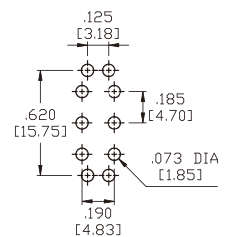


### VS2-VS3 Double Pole

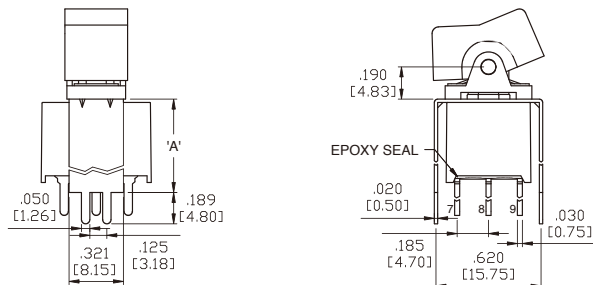


OPTION CODE	DIM.'A'
<b>VS2</b>	.461 [11.70]
<b>VS3</b>	.630 [16.00]

### P.C.MOUNTING

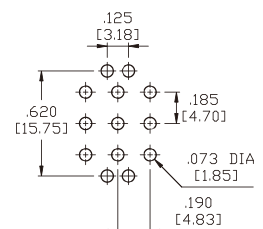


### U2-VS3 Three Pole



OPTION CODE	DIM.'A'
<b>U2</b>	.551 [14.00]
<b>VS3</b>	.630 [16.00]

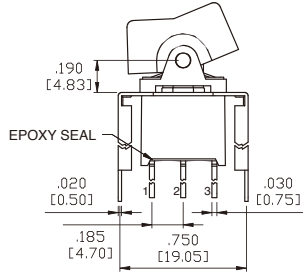
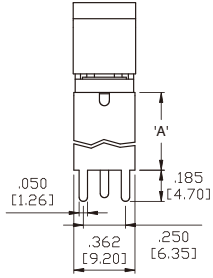
### P.C.MOUNTING



# 1MS-Series Dimensional Specifications: in. [mm]

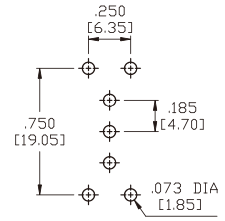
## Termination Options

### VS4-VS5 Single Pole

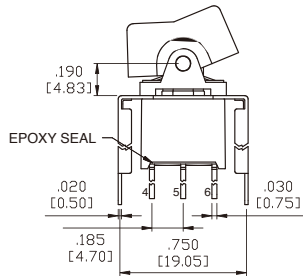
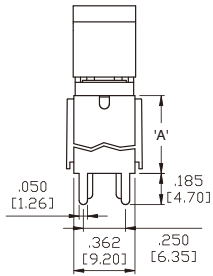


OPTION CODE	DIM.'A'
<b>VS4</b>	.461 [11.70]
<b>VS5</b>	.630 [16.00]

### P.C.MOUNTING

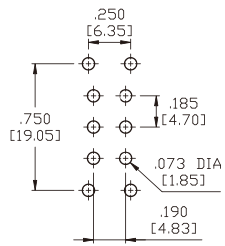


### VS4-VS5 Double Pole

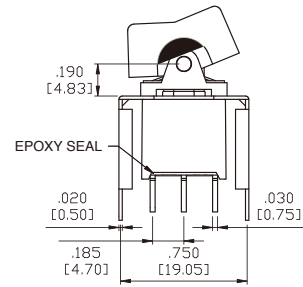
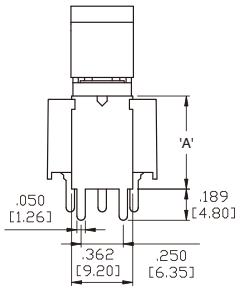


OPTION CODE	DIM.'A'
<b>VS4</b>	.461 [11.70]
<b>VS5</b>	.630 [16.00]

### P.C.MOUNTING

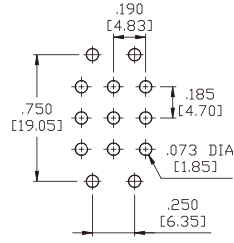


### U4-VS5 Three Pole



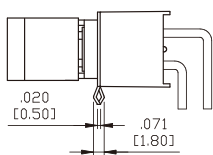
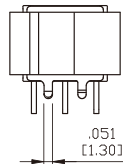
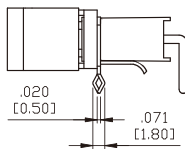
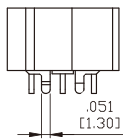
OPTION CODE	DIM.'A'
<b>U4</b>	.551 [14.00]
<b>VS5</b>	.630 [16.00]

### P.C.MOUNTING

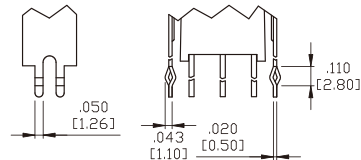


## Snap-In Termination Options

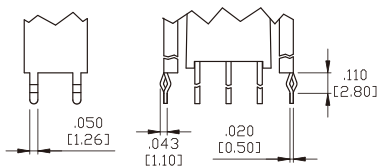
### M61



### VS21, VS31



### VS41, VS51

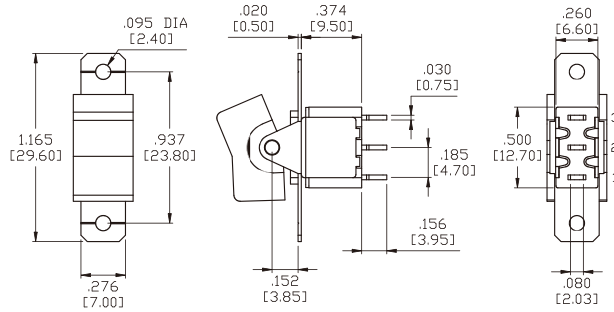


\* PC Mounting for M61, M71, VS21, VS31, VS41, VS51 refer to M6, M7, VS2, VS3, VS4, VS5 respectively.

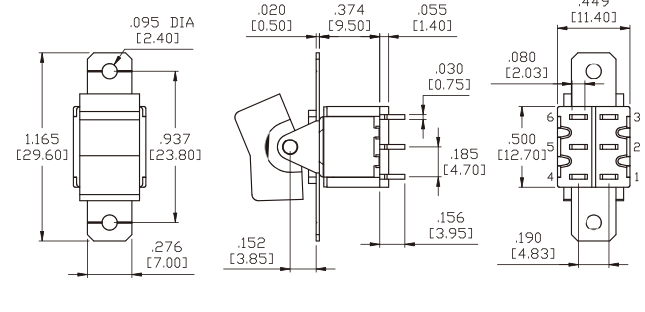


## 1M1-Series Dimensional Specifications: in. [mm]

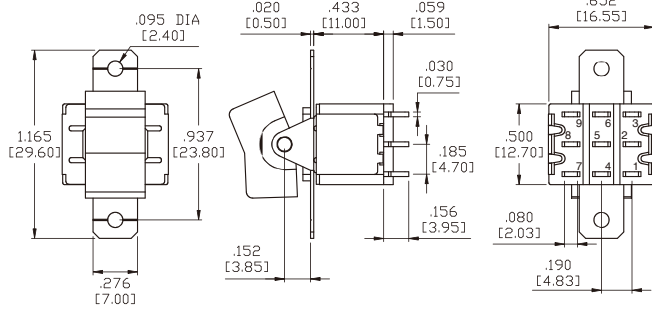
### Single Pole



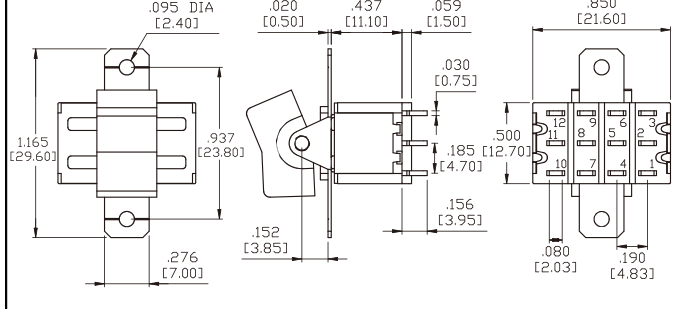
### Double Pole



### Three Pole

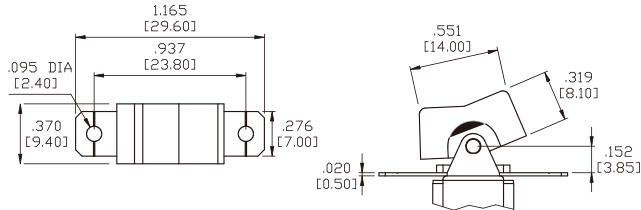


### Four Pole

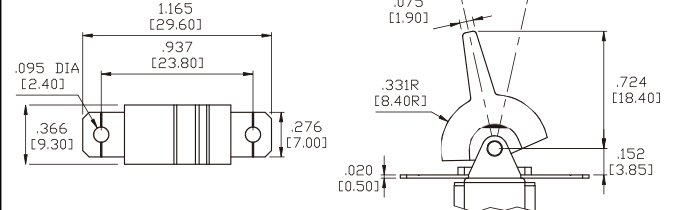


### Actuator Options for Panel Rear Mount

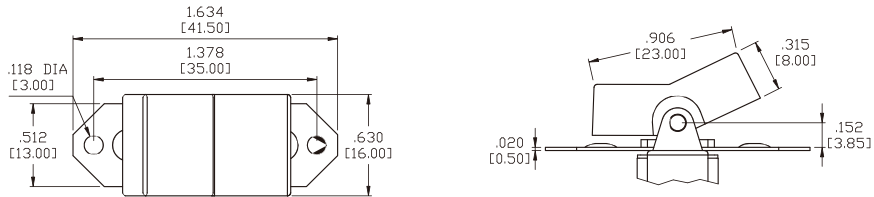
#### R1



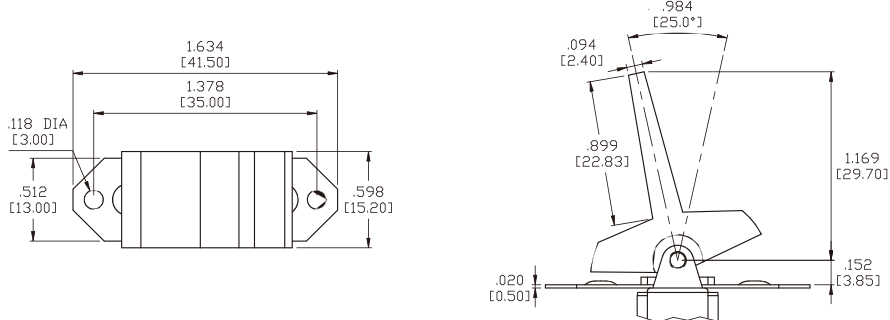
#### R2



#### R3



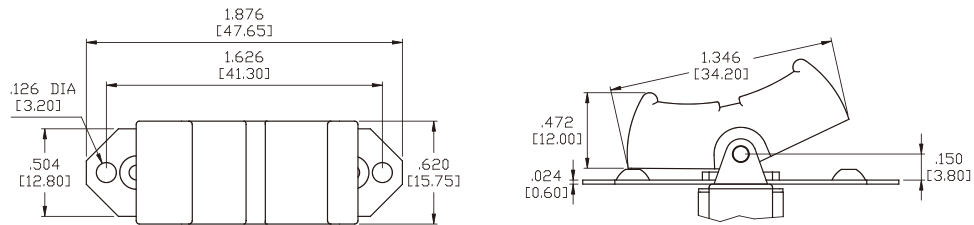
#### R4



## 1M1-Series Dimensional Specifications: in. [mm]

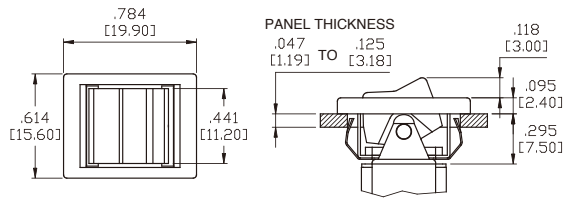
### Actuator Options for Panel Rear Mount

**R5**

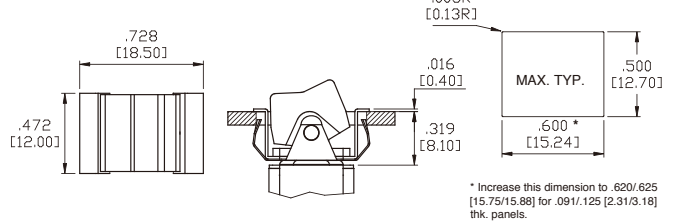


### Actuator Options for Snap-In Mount

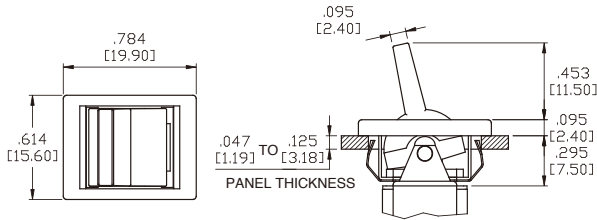
**R6**



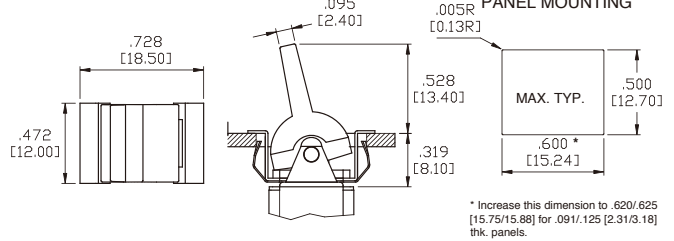
**R6 WITHOUT FRAME**



**R7**

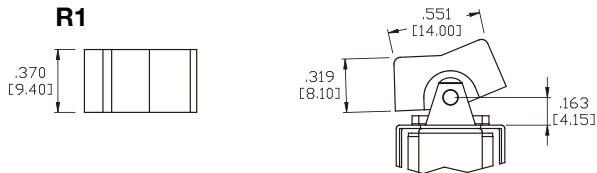


**R7 WITHOUT FRAME**

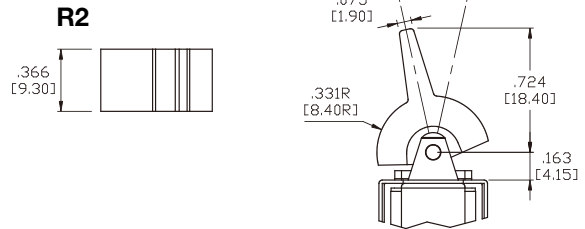


### Actuator Options for PC Mount

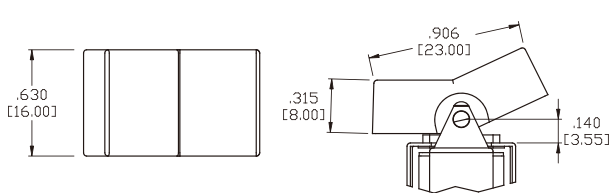
**R1**



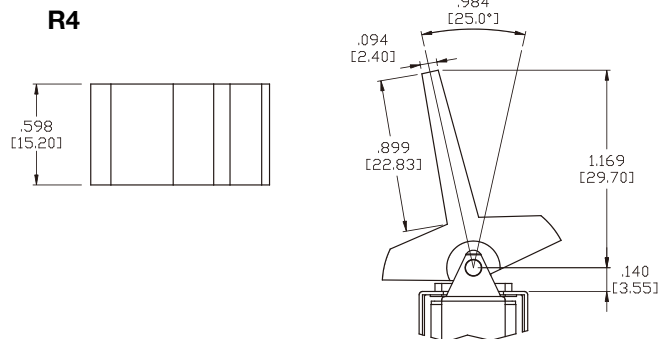
**R2**



**R3**

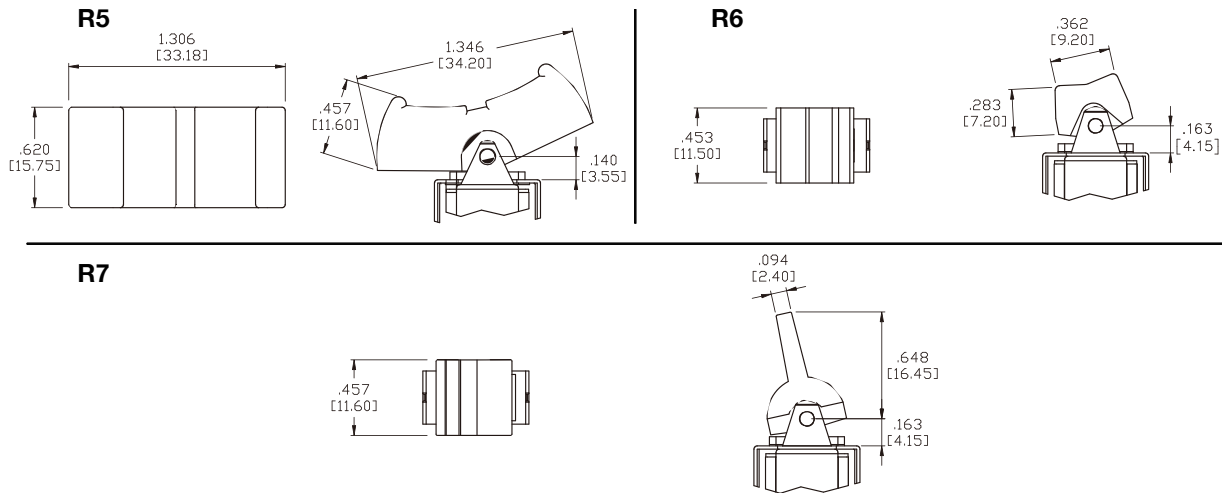


**R4**



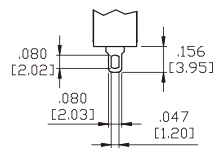
## 1M1-Series Dimensional Specifications: in. [mm]

### Actuator Options for PC Mount



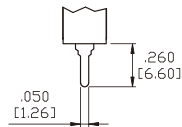
### Termination Options

#### M1 Standard Solder Lug



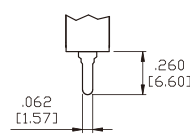
THK .030 [0.75]

#### M2 PC Thru-Hole



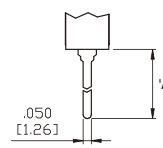
THK .030 [0.75]

#### M3 Quick Connect



THK .030 [0.75]

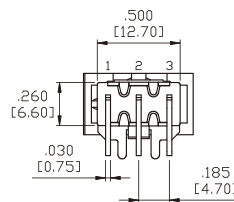
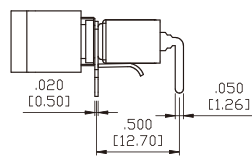
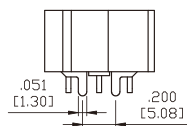
#### M5 Wire Wrap



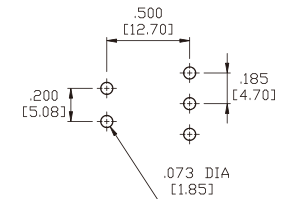
THK .030 [0.75]

OPTION CODE	DIM. 'A'
M5-1	.750 [19.05]
M5-2	.964 [24.48]
M5-3	.425 [10.80]
M5-4	1.062 [26.97]

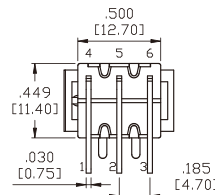
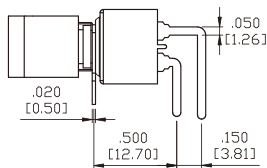
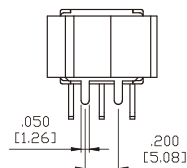
#### M6 Single Pole



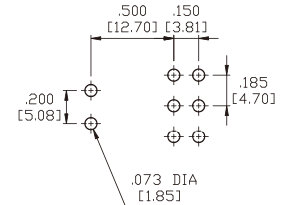
#### P.C.MOUNTING



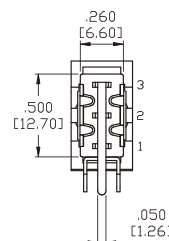
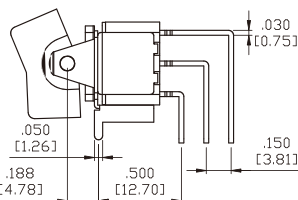
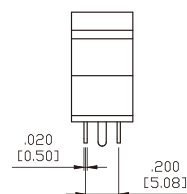
#### M6 Double Pole



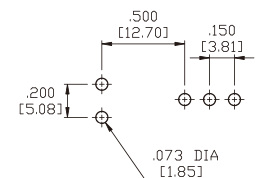
#### P.C.MOUNTING



#### M7 Single Pole



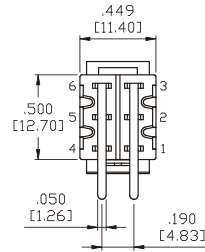
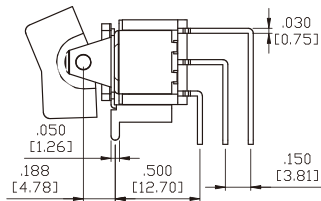
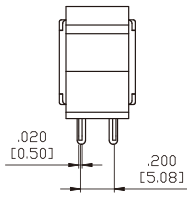
#### P.C.MOUNTING



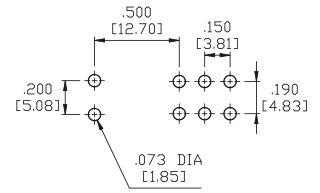
# 1M1-Series Dimensional Specifications: in. [mm]

## Termination Options

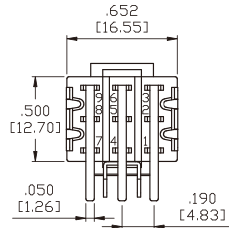
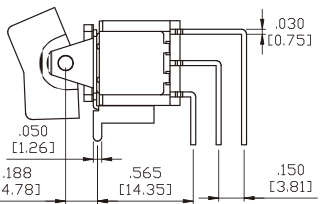
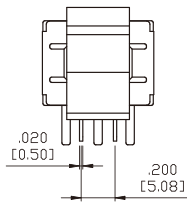
### M7 Double Pole



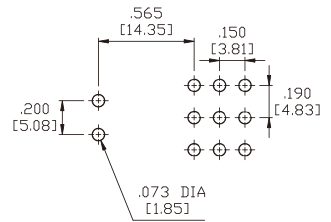
### P.C.MOUNTING



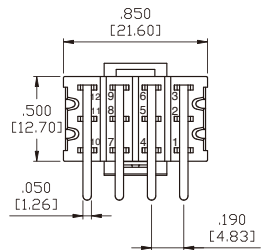
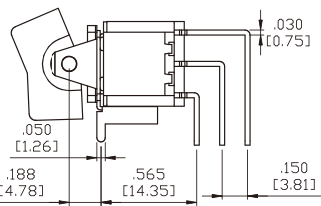
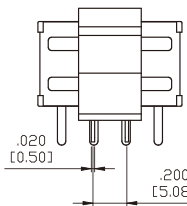
### M7 Three Pole



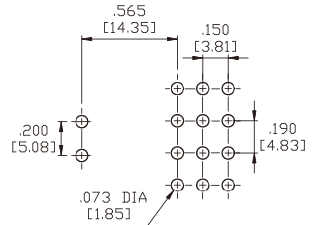
### P.C.MOUNTING



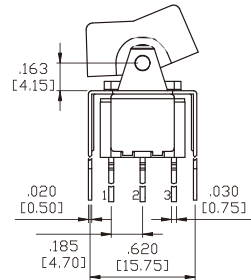
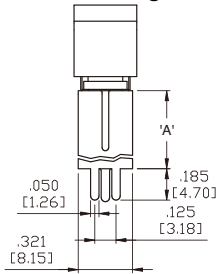
### M7 Four Pole



### P.C.MOUNTING

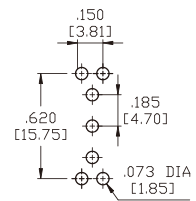


### VS2-VS3 Single Pole

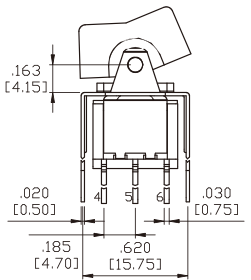
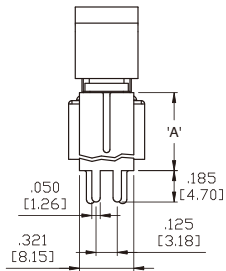


OPTION CODE	DIM.'A'
VS2	.461 [11.70]
VS3	.630 [16.00]

### P.C.MOUNTING

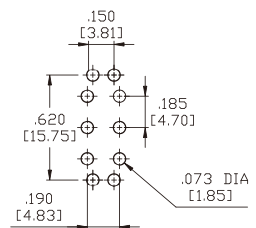


### VS2-VS3 Double Pole



OPTION CODE	DIM.'A'
VS2	.461 [11.70]
VS3	.630 [16.00]

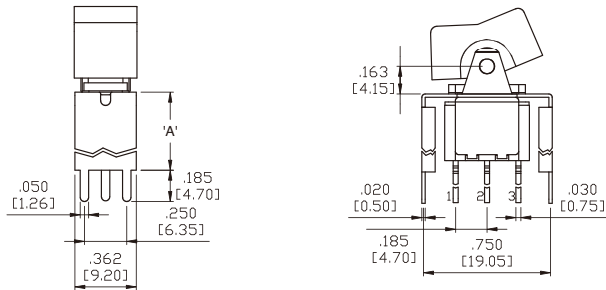
### P.C.MOUNTING



# 1M1-Series Dimensional Specifications: in. [mm]

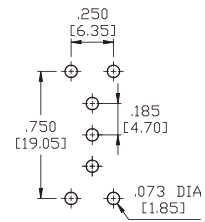
## Termination Options

### VS4-VS5 Single Pole

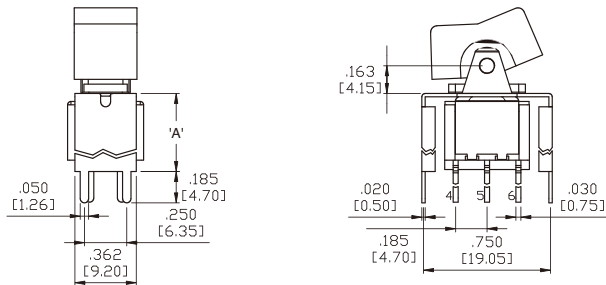


OPTION CODE	DIM. 'A'
VS4	.461 [11.70]
VS5	.630 [16.00]

### P.C.MOUNTING

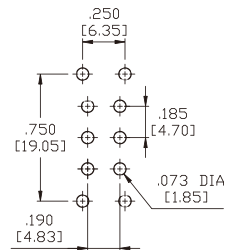


### VS4-VS5 Double Pole

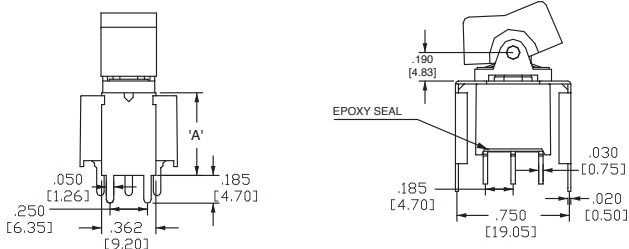


OPTION CODE	DIM. 'A'
VS4	.461 [11.70]
VS5	.630 [16.00]

### P.C.MOUNTING

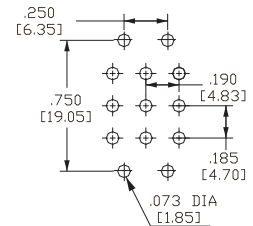


### U4-VS5 Three Pole



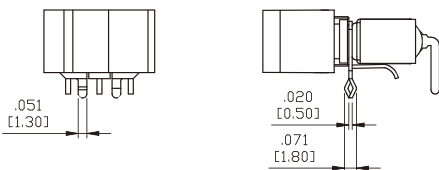
OPTION CODE	DIM. 'A'
U4	.551 [14.00]
VS5	.630 [16.00]

### P.C.MOUNTING

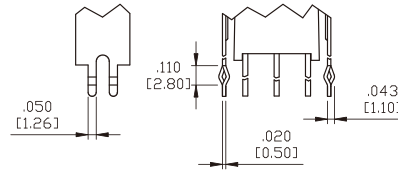


## Snap-In Termination Options

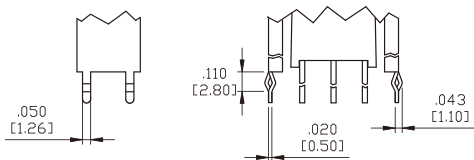
### M61



### VS21, VS31



### VS41, VS51



\* PC Mounting for M61, VS21, VS31, VS41, VS51 refer to M6, VS2, VS3, VS4, VS5 respectively.