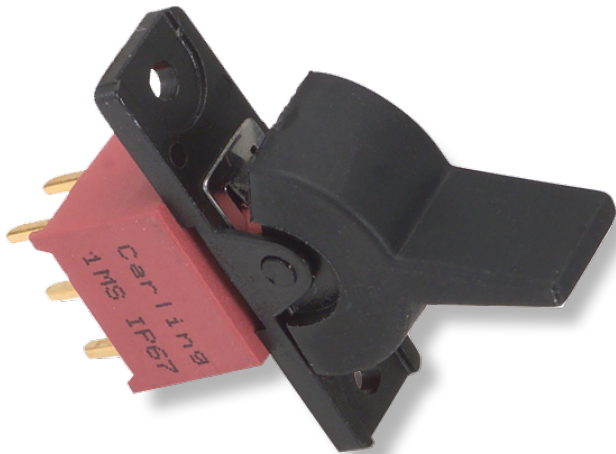


# 1M-Series

Miniature Rockers & Paddles

[PRODUCT WEBPAGE](#)

*request sample, configure part*



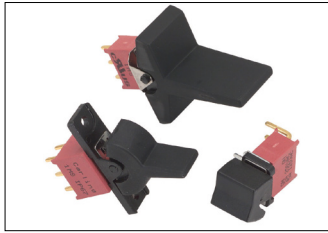
The 1M family of miniature rocker & paddle switches is composed of two switch series; the 1M1-Series miniature rocker and paddle switch, and the 1MS-Series sealed miniature rocker and paddle switch. Both products feature PC mounting and offer a variety of ratings, circuits, contact materials, terminal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

**1-3** Poles    **.4-5** Amps    **125, 250** VAC    **28** VDC

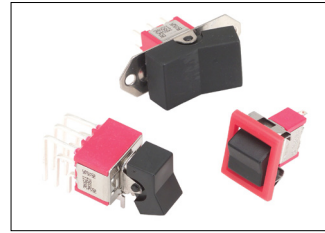
## Typical Applications

- Instrumentation
- Test Equipment
- Telecommunications
- Networking
- Handheld Appliances
- Medical Equipment

# Tech Specs



**IMS-Series  
Sealed**  
Miniature Rocker  
& Rocker Switch



**IMI-Series**  
Miniature Rocker  
& Rocker Switch

## Electrical

Contact Rating	refer to ordering scheme
Electrical Life	<b>IMS-Series:</b> 30,000 make & break cycles @ full load <b>IMI-Series:</b> 50,000 make & breakcycles @ 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	IMS-Series: IP67
Solder Heat Resistance	MIL-STD-202, Method 210
Actuator Travel	25°

## Material

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

# Ordering Schemes

Sample Part Number

**IMS - SP 1 - R6 / 2 M6 G E**

Selection 1 2 3 4 5 6 7 8

## 1. SERIES

**IMS** Sealed Miniature Rocker Switch

## 2. POLES

**SP** Single pole - uses terminals 1, 2 & 3  
**DP** Double pole uses terminals 1, 2, 3, 4, 5 & 6  
**3P** Three pole uses terminals 1, 2, 3, 4, 5, 6, 7, 8 & 9

## 3. CIRCUIT

( ) - momentary  
**Position:** **1** **2** **3**  
 2-3, 5-6, 8-9 Connected Terminals 2-1, 5-4, 8-7

1	ON	NONE	ON
2	ON	NONE	(ON)
3	ON	OFF	ON
4	(ON)	OFF	(ON)
5	ON	OFF	(ON)
6*	ON	ON	ON
7*	(ON)	ON	(ON)
8*	ON	ON	(ON)
9*	OFF	ON	(ON)

\*Center Position Connects 2-3, 5-4, 8-9

## 4. ACTUATOR STYLE

**R1** Standard Rocker **R5** Large Rocker  
**R2** Standard Paddle **R6** Small Rocker  
**R3** Medium Rocker **R7** Medium Paddle  
**R4** Large Paddle

## 5. ACTUATOR COLOR

**1** White **2** Black **3** Red  
 Black is standard. Other colors available, consult factory.

## 6. TERMINATION

<b>M1</b> Solder Lug	<b>VS2</b> PC Mount, U bracket
<b>M2</b> PCB	<b>VS3</b> PC Mount, U bracket
<b>M3</b> Quick Connect	<b>VS4</b> PC Mount, U bracket
<b>M51</b> Wire Wrap	<b>VS5</b> PC Mount, U bracket
<b>M52</b> Wire Wrap	<b>VS21</b> Snap-In, U bracket
<b>M53</b> Wire Wrap	<b>VS31</b> Snap-In, U bracket
<b>M54</b> Wire Wrap	<b>VS41</b> Snap-In, U bracket
<b>M6</b> PC Mount, 90° horizontal	<b>VS51</b> Snap-In, U bracket
<b>M7</b> PC Mount, 90° vertical	<b>U2</b> Vertical Mount, 3-Pole
	<b>U4</b> Snap-In, U bracket, 3-Pole

See dimensional specifications.

## 7. CONTACTS / TERMINALS

Contact Material	Terminal Plating	Rating	Approvals
<b>G</b> silver <sup>1</sup>	gold over silver 2A	5A 125VAC or 28VDC, 250VAC	us, IP67
<b>K</b> gold <sup>2,5</sup>	tin <sup>4</sup>	0.4VA max 20V max (AC/DC)	IP67
<b>P</b> silver <sup>1,6</sup>	tin <sup>4</sup>	5A 125VAC or 28VDC, 250VAC	us, IP67
<b>R</b> gold <sup>2</sup>	gold <sup>3</sup>	0.4VA max 20V max (AC/DC)	IP67

## 8. EPOXY SEAL

**E** Epoxy Seal **0** without Epoxy Seal

Notes:

- Tin option not available with M1 and M3 terminals.
- 1 Movable contact and terminal platings: silver over copper alloy
- 2 Movable contact platings: gold over nickel over copper alloy
- 3 Terminal platings: gold over nickel over copper alloy
- 4 Terminal platings: tin over copper alloy
- 5 Terminal contact platings: gold over nickel alloy
- 6 Terminal contact platings: silver over nickel alloy

[Configure Complete Part Number >](#)

[Browse Standard Parts >](#)

Sample Part Number

**IMI - SP 1 - R8 / 2 - 2 M6 Q E**

Selection 1 2 3 4 5 6 7 8 9

## 1. SERIES

**IMI** Miniature Rocker Switch

## 2. POLES

**SP** Single pole - uses terminals 1, 2 & 3  
**DP** Double pole uses terminals 1, 2, 3, 4, 5 & 6  
**3P** Three pole uses terminals 1, 2, 3, 4, 5, 6, 7, 8 & 9  
**4P** Four pole uses terminals 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

## 3. CIRCUIT

( ) - momentary  
**Position:** **1** **2** **3**  
 2-3, 5-6, 8-9, 11-12 Connected Terminals 2-1, 5-4, 8-7, 11-10

1	ON	NONE	ON
2	ON	NONE	(ON)
3	ON	OFF	ON
4	(ON)	OFF	(ON)
5	ON	OFF	(ON)
6 <sup>1</sup>	ON	ON	ON
7 <sup>1</sup>	(ON)	ON	(ON)
8 <sup>1</sup>	ON	ON	(ON)
9 <sup>2</sup>	NONE	ON	(ON)

## 4. ACTUATOR STYLE

**R1** Standard Rocker **R6** Rocker & frame  
**R2** Standard Paddle **R7** Paddle & frame  
**R3** Medium Rocker **R8** Rocker without frame  
**R4** Large Paddle **R9** Paddle without frame  
**R5** Large rocker

## 5. ACTUATOR COLOR / 6 FRAME COLOR

**0** No Frame\* **2** Black  
**1** White **3** Red  
 Black is standard. Other colors available, consult factory.  
 \*Actuator style R8 or R9 only.

## 7. TERMINATION

<b>M1</b> Solder Lug	<b>VS3</b> PC Mount, U bracket
<b>M2</b> PCB	<b>VS4</b> PC Mount, U bracket
<b>M3</b> Quick Connect	<b>VS5</b> PC Mount, U bracket
<b>M51</b> Wire Wrap	<b>M61</b> Snap-In, U bracket, 90° horizontal
<b>M52</b> Wire Wrap	<b>M71</b> Snap-In, U bracket, 90° vertical
<b>M53</b> Wire Wrap	<b>VS21</b> Snap-In, U bracket
<b>M54</b> Wire Wrap	<b>VS31</b> Snap-In, U bracket
<b>M6</b> PC Mount, 90° horizontal	<b>VS41</b> Snap-In, U bracket
<b>M7</b> PC Mount, 90° vertical	<b>VS51</b> Snap-In, U bracket
<b>VS2</b> PC Mount, U bracket	<b>U4</b> Snap-In, U bracket, 3-Pole

See dimensional specifications.

## 8. CONTACTS / TERMINALS

Contact Material	Terminal Plating	Rating	Approvals
<b>G</b> silver <sup>3</sup>	gold over silver 2A	5A 125VAC or 28VDC, 250VAC	
<b>K</b> gold <sup>4,7</sup>	tin <sup>6</sup>	0.4VA max 20V max (AC/DC)	N/A
<b>P</b> silver <sup>3,8</sup>	tin <sup>6</sup>	5A 125VAC or 28VDC,	
<b>Q</b> silver <sup>3</sup>	2A 250VAC silver <sup>3</sup>	5A 125VAC or 28VDC,	
<b>R</b> gold <sup>4</sup>	2A 250VAC gold <sup>5</sup>	0.4VA max 20V max (AC/DC)	N/A

## 9. EPOXY SEAL

**E** Epoxy Seal **0** without Epoxy Seal

Notes:

- Tin option not available with M1 and M3 terminals.
- 1 Double-Pole and Four-Pole only. Center position connects 2-3, 5-4, 8-9, 11-10
- 2 Double-Pole only
- 3 Movable contact and terminal platings: silver over copper alloy
- 4 Movable contact platings: gold over nickel over copper alloy
- 5 Terminal platings: gold over nickel over copper alloy
- 6 Terminal platings: tin over copper alloy
- 7 Terminal contact platings: gold over nickel alloy
- 8 Terminal contact platings: silver over nickel alloy

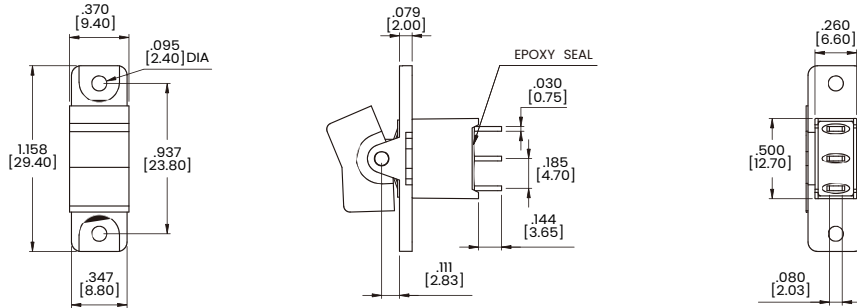
[Configure Complete Part Number >](#)

[Browse Standard Parts >](#)

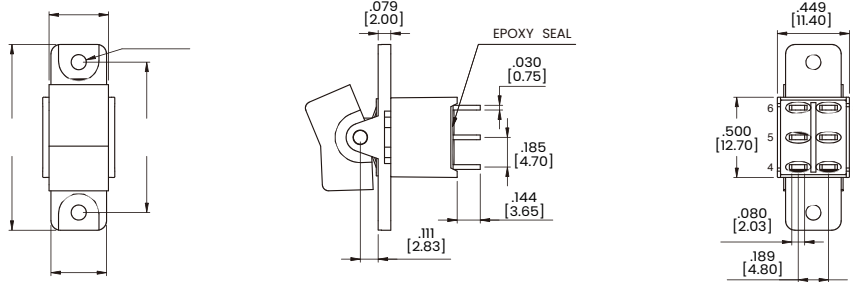
# Dimensional Specs

inches [millimeters]

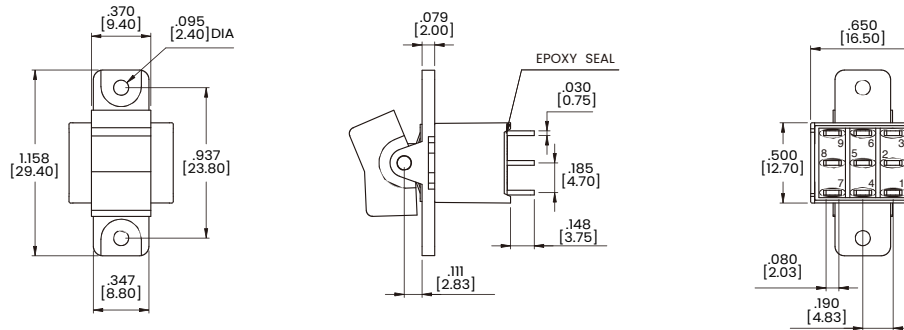
## Single Pole



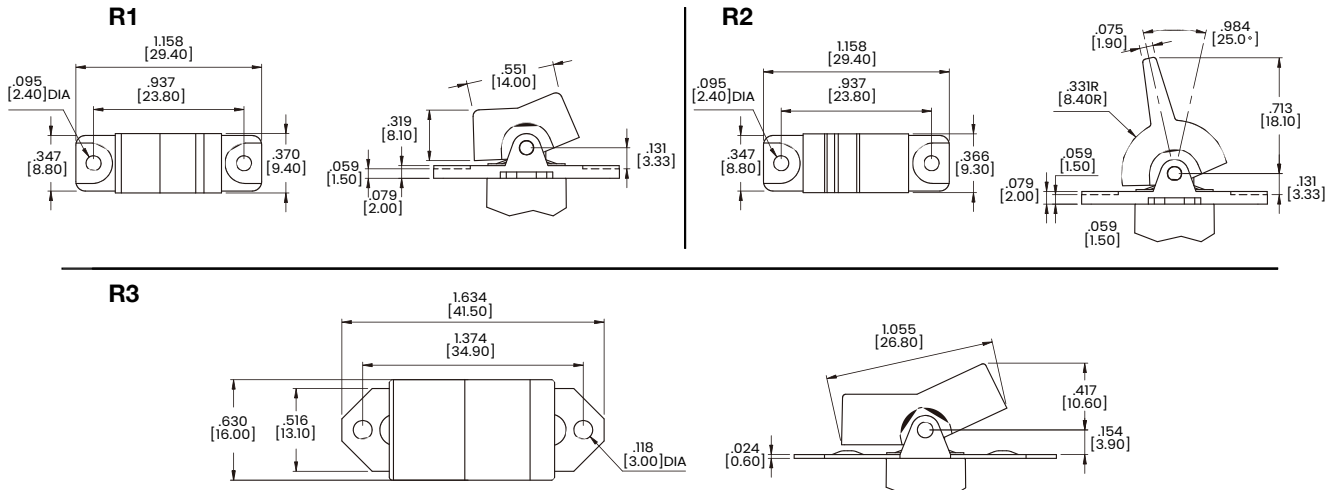
## Double Pole



## Three Pole



## Actuator Options for Panel Rear Mount

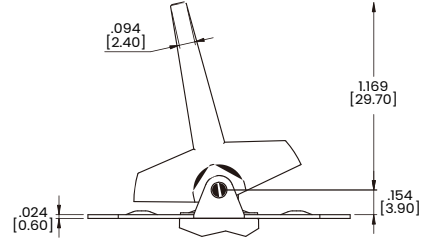
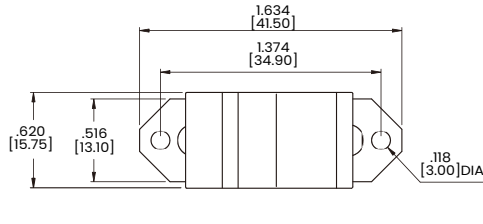


# Dimensional Specs

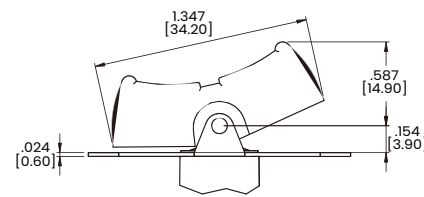
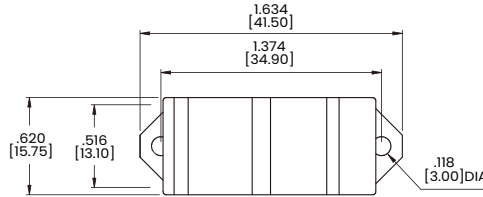
inches [millimeters]

## Actuator Options for Panel Rear Mount

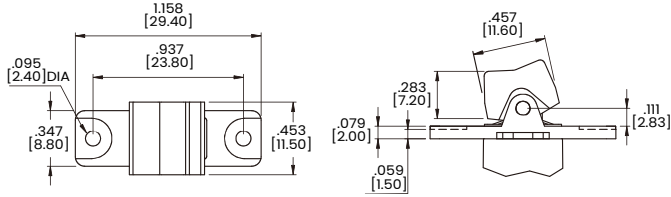
**R4**



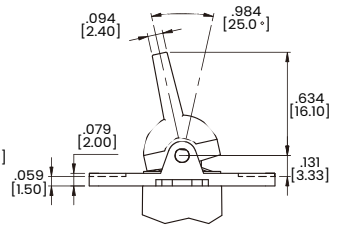
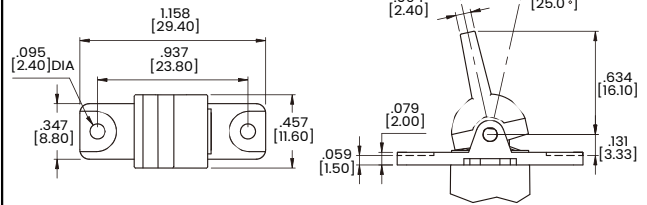
**R5**



**R6**

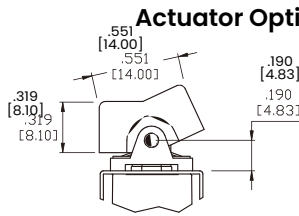


**R7**

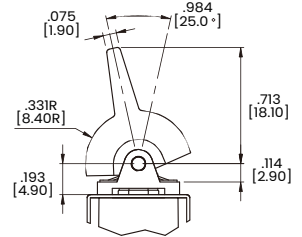


## Actuator Options for PC Mount

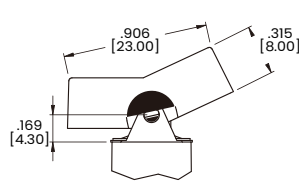
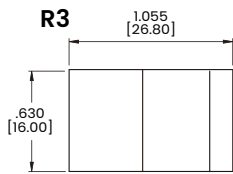
**R1**



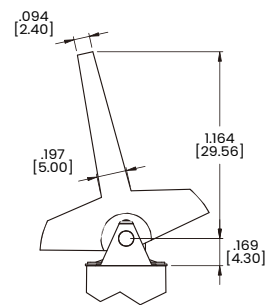
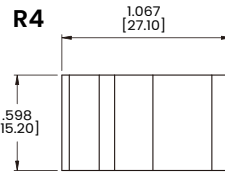
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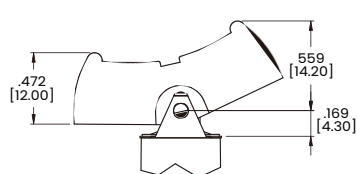
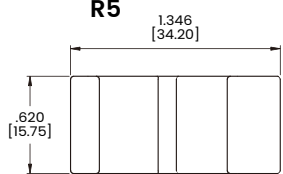
**R3**



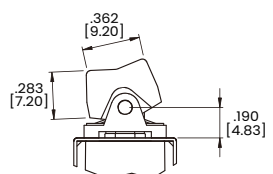
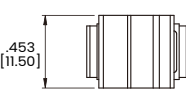
**R4**



**R5**



**R6**

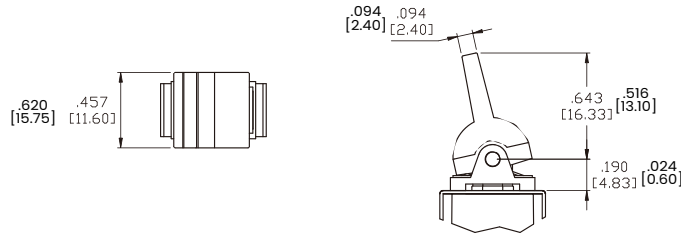


# Dimensional Specs

inches [millimeters]

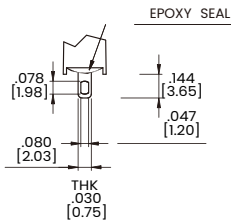
## Actuator Options for PC Mount

R7

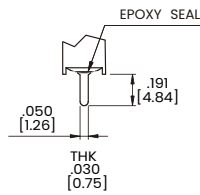


## Termination Options

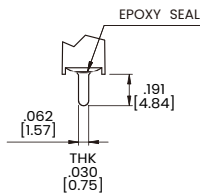
M1 Standard Solder Lug



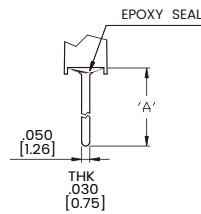
M2 PC Thru-Hole



M3 Quick Connect

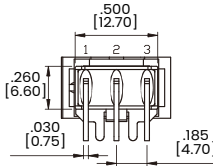
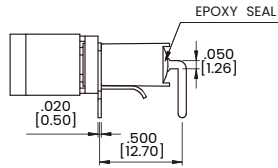
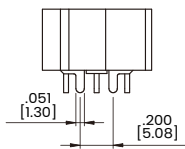


M5 Wire Wrap

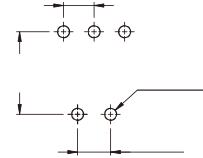


OPTION CODE	DIM.'A'
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M5-2	.924 [23.48]
M5-3	.386 [9.80]
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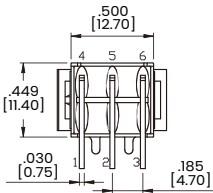
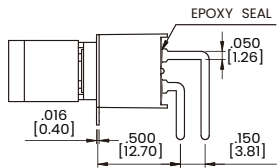
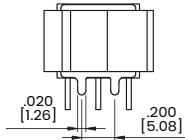
M6 Single Pole



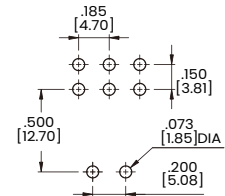
P.C.MOUNTING



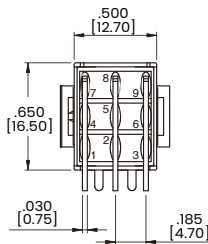
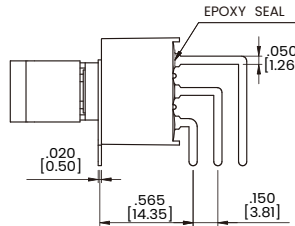
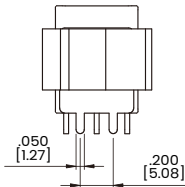
M6 Double Pole



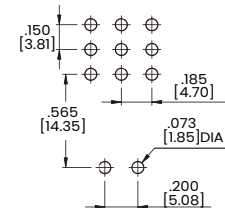
P.C.MOUNTING



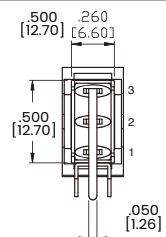
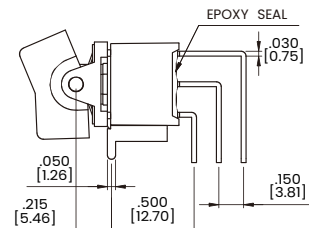
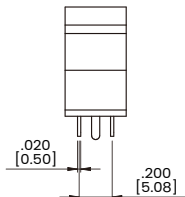
M6 Three Pole



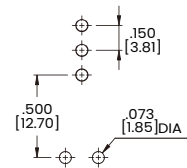
P.C.MOUNTING



M7 Single Pole



P.C.MOUNTING

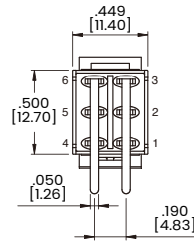
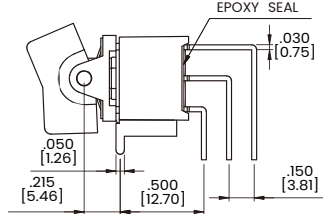
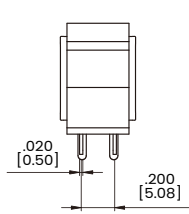


# Dimensional Specs

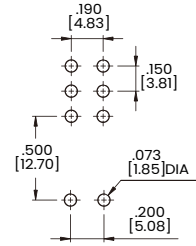
inches [millimeters]

## Termination Options

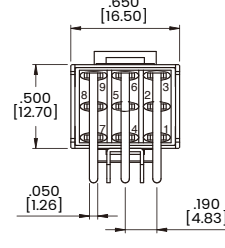
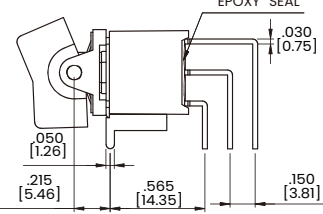
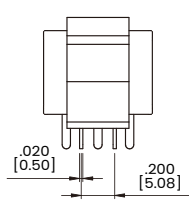
### M7 Double Pole



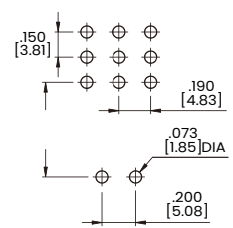
### P.C.MOUNTING



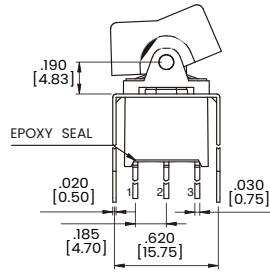
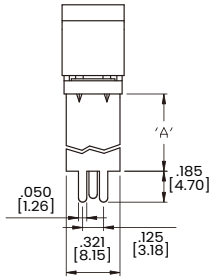
### M7 Three Pole



### P.C.MOUNTING

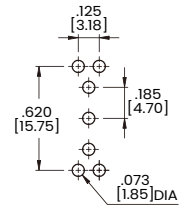


### VS2-VS3 Single Pole

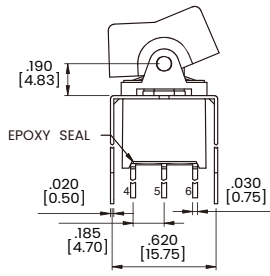
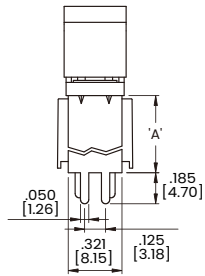


OPTION CODE	DIM.'A'
VS2	.461 [11.70]
VS3	.630 [16.00]

### P.C.MOUNTING

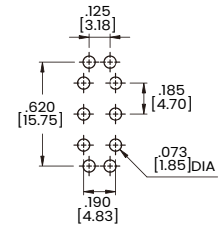


### VS2-VS3 Double Pole

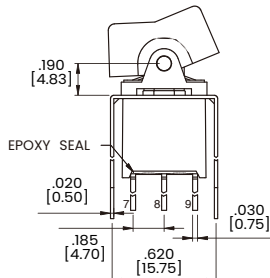
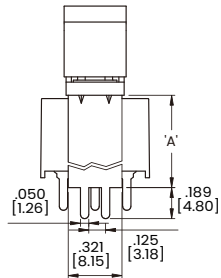


OPTION CODE	DIM.'A'
VS2	.461 [11.70]
VS3	.630 [16.00]

### P.C.MOUNTING

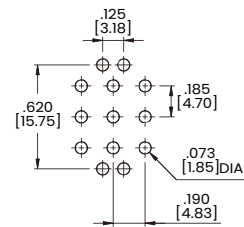


### U2-VS3 Three Pole



OPTION CODE	DIM.'A'
U2	.551 [14.00]
VS3	.630 [16.00]

### P.C.MOUNTING

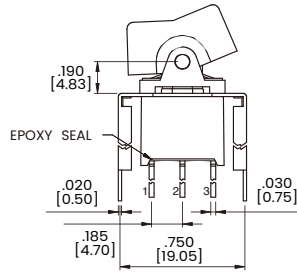
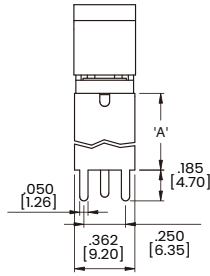


# Dimensional Specs

inches [millimeters]

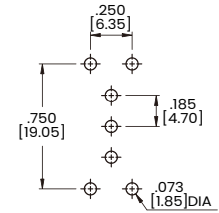
## Termination Options

### VS4-VS5 Single Pole

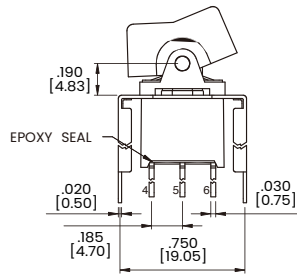
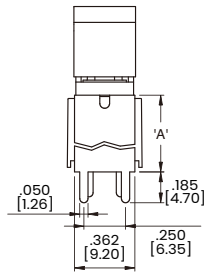


OPTION CODE	DIM.'A'
<b>VS4</b>	.461 [11.70]
<b>VS5</b>	.630 [16.00]

### P.C.MOUNTING

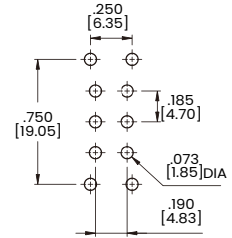


### VS4-VS5 Double Pole

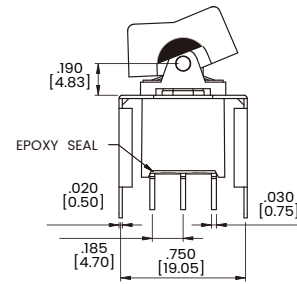
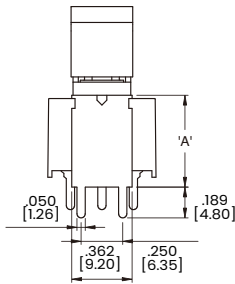


OPTION CODE	DIM.'A'
<b>VS4</b>	.461 [11.70]
<b>VS5</b>	.630 [16.00]

### P.C.MOUNTING

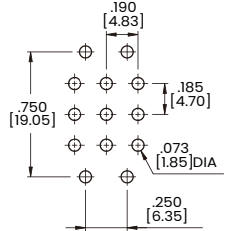


### U4-VS5 Three Pole



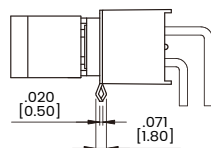
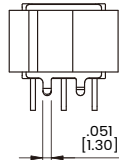
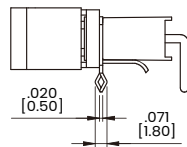
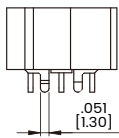
OPTION CODE	DIM.'A'
<b>U4</b>	.551 [14.00]
<b>VS5</b>	.630 [16.00]

### P.C.MOUNTING

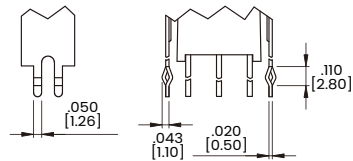


## Snap-In Termination Options

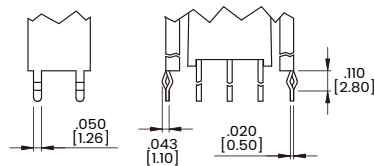
### M61



### VS21, VS31



### VS41, VS51



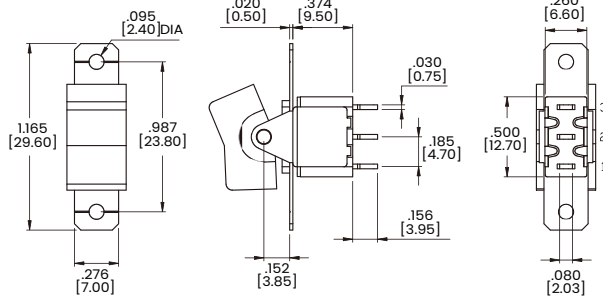
\* PC Mounting for M61, M71, VS21, VS31, VS41, VS51 refer to M6, M7, VS2, VS3, VS4, VS5 respectively.



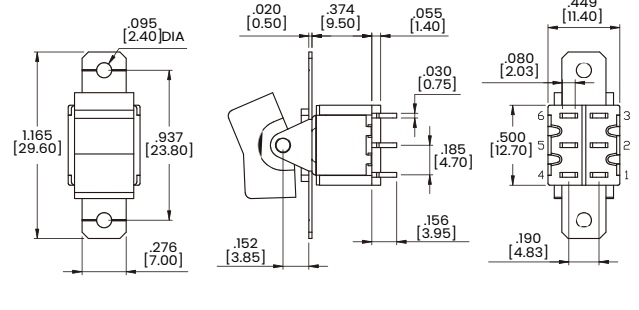
# Dimensional Specs

inches [millimeters]

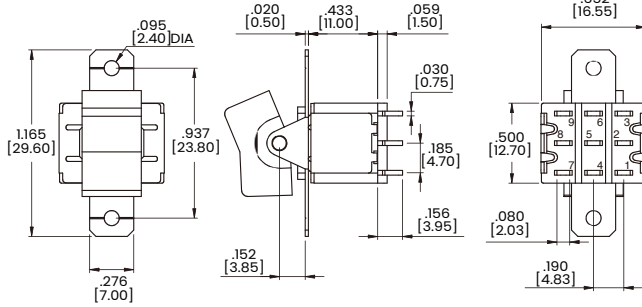
## Single Pole



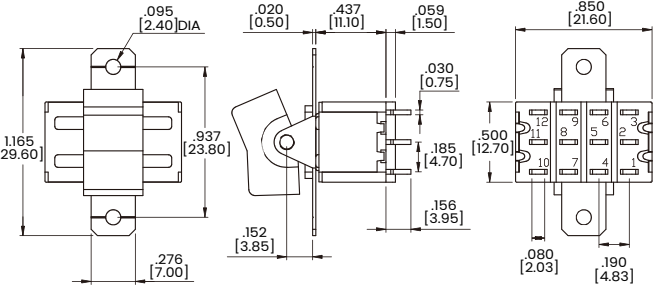
## Double Pole



## Three Pole

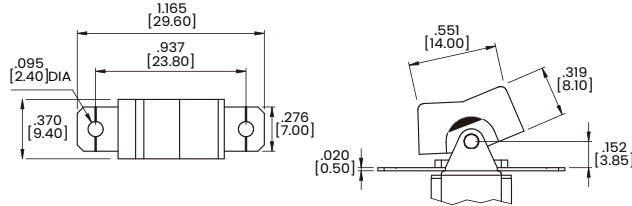


## Four Pole

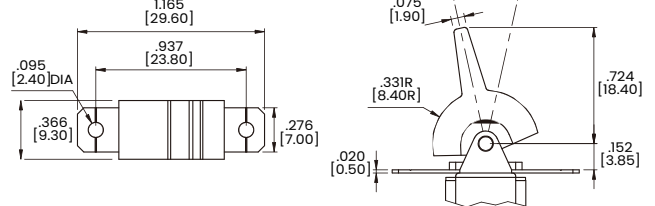


## Actuator Options for Panel Rear Mount

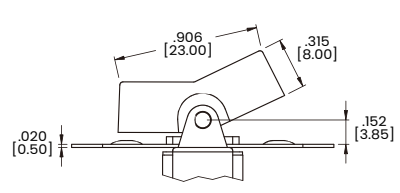
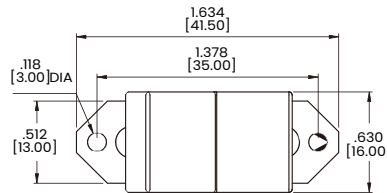
### R1



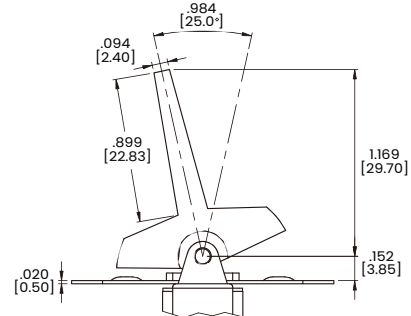
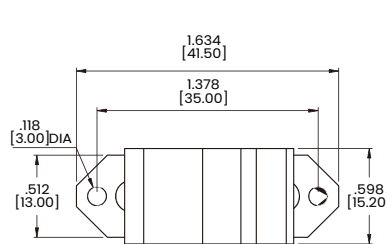
### R2



### R3



### R4

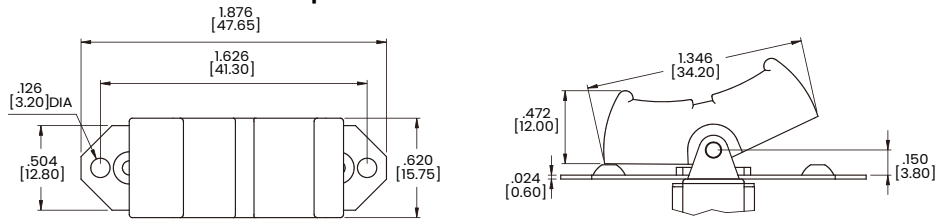


# Dimensional Specs

inches [millimeters]

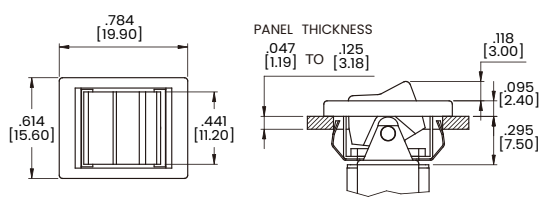
## Actuator Options for Panel Rear Mount

R5

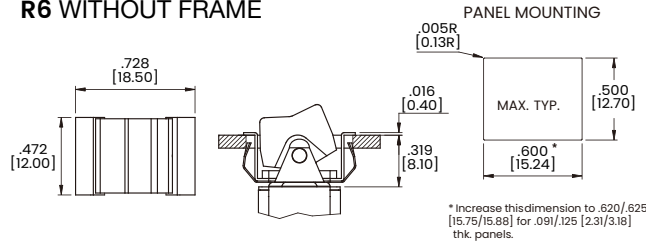


## Actuator Options for Snap-In Mount

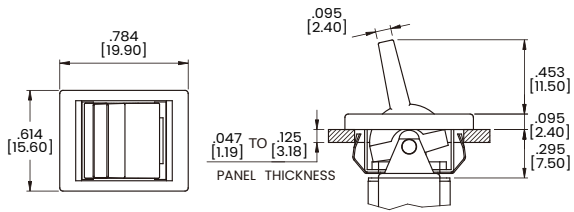
R6



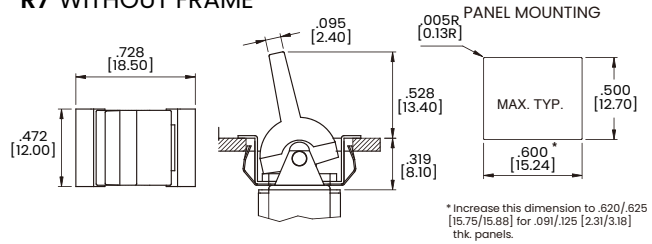
R6 WITHOUT FRAME



R7

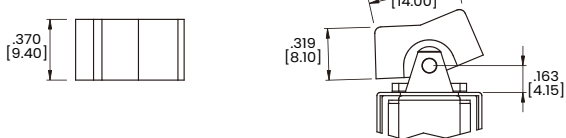


R7 WITHOUT FRAME

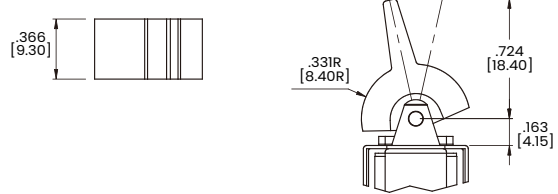


## Actuator Options for PC Mount

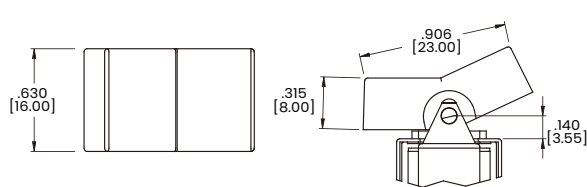
R1



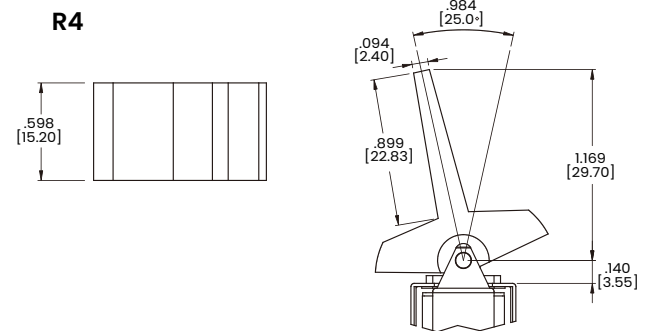
R2



R3



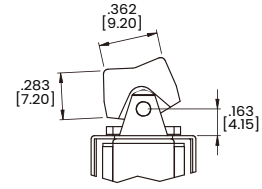
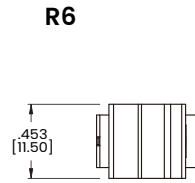
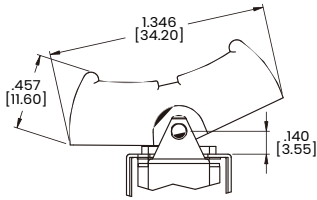
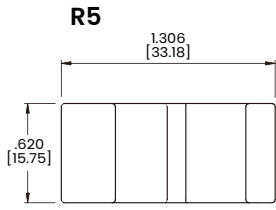
R4



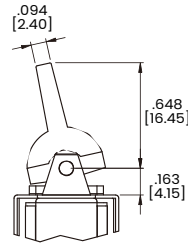
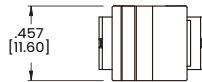
# Dimensional Specs

inches [millimeters]

## Actuator Options for PC Mount

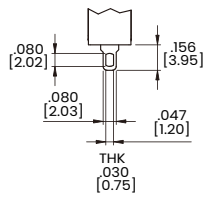


**R7**

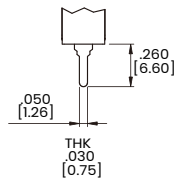


## Termination Options

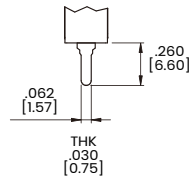
**M1 Standard Solder Lug**



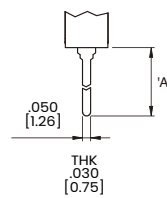
**M2 PC Thru-Hole**



**M3 Quick Connect**

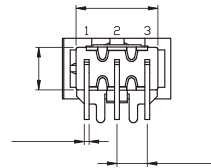
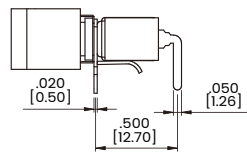
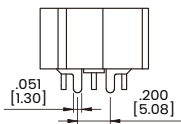


**M5 Wire Wrap**

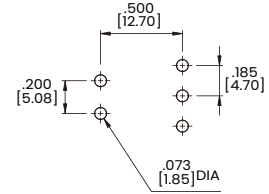


OPTION CODE	DIM. 'A'
M5-1	.750 [19.05]
M5-2	.964 [24.48]
M5-3	.425 [10.80]
M5-4	1.062 [26.97]

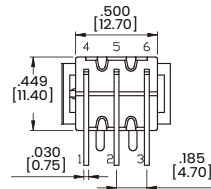
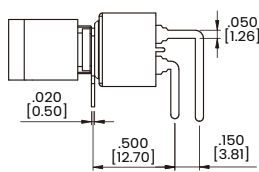
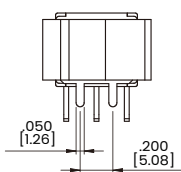
**M6 Single Pole**



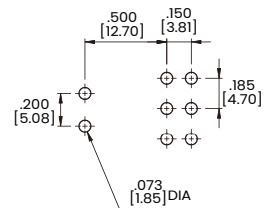
**P.C.MOUNTING**



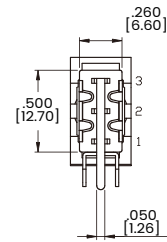
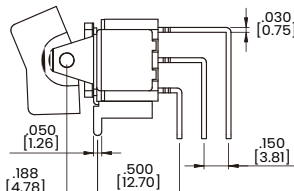
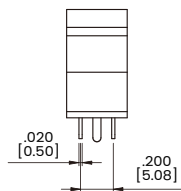
**M6 Double Pole**



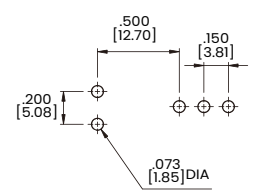
**P.C.MOUNTING**



**M7 Single Pole**



**P.C.MOUNTING**

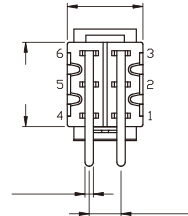
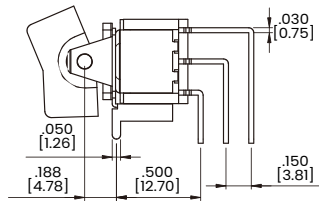
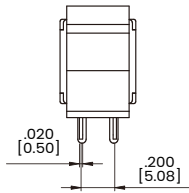


# Dimensional Specs

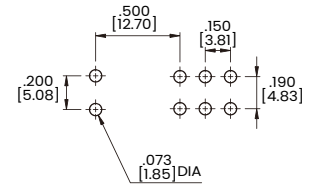
inches [millimeters]

## Termination Options

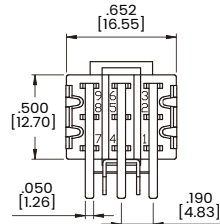
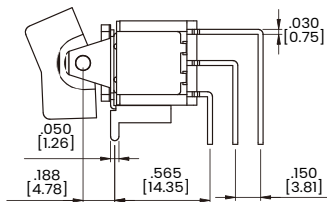
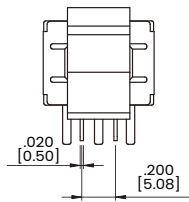
### M7 Double Pole



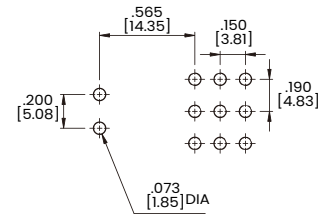
### P.C.MOUNTING



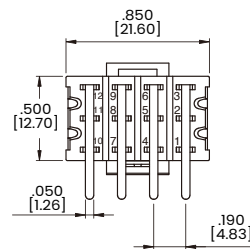
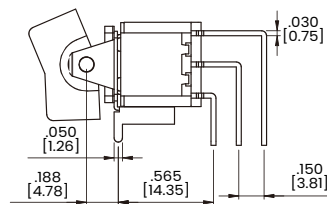
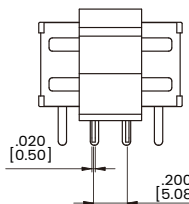
### M7 Three Pole



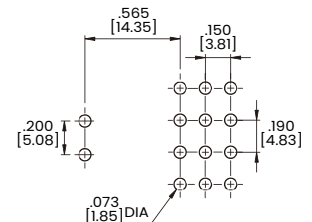
### P.C.MOUNTING



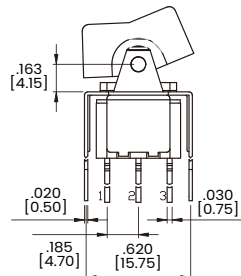
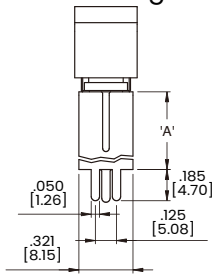
### M7 Four Pole



### P.C.MOUNTING

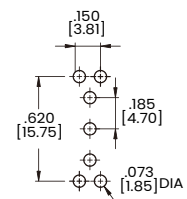


### VS2-VS3 Single Pole

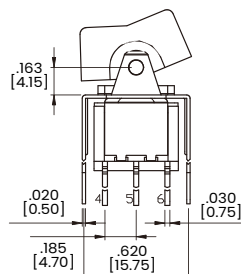
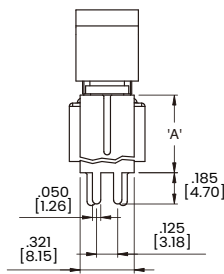


OPTION CODE	DIM.'A'
VS2	.461 [11.70]
VS3	.630 [16.00]

### P.C.MOUNTING

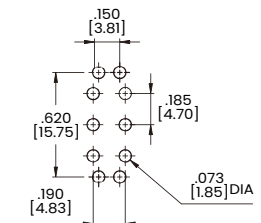


### VS2-VS3 Double Pole



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

### P.C.MOUNTING

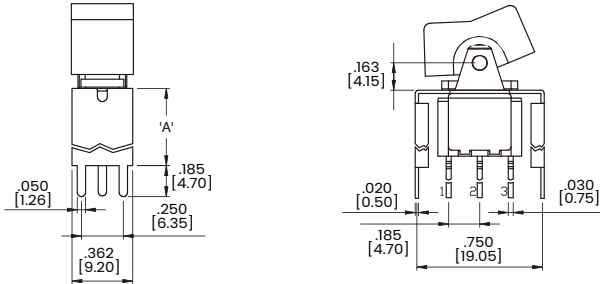


# Dimensional Specs

inches [millimeters]

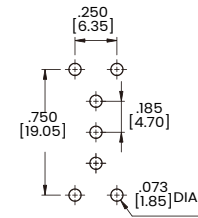
## Termination Options

### VS4-VS5 Single Pole

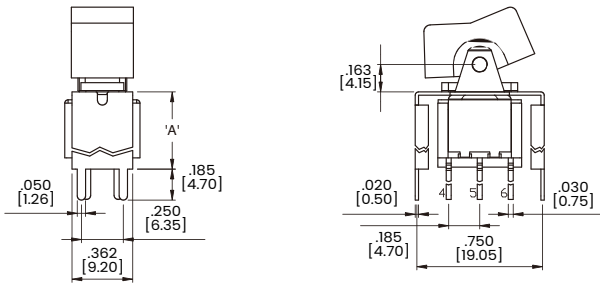


OPTION CODE	DIM.'A'
<b>VS4</b>	.461 [11.70]
<b>VS5</b>	.630 [16.00]

### P.C.MOUNTING

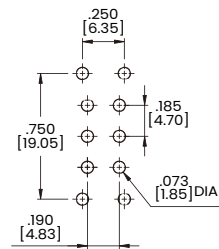


### VS4-VS5 Double Pole

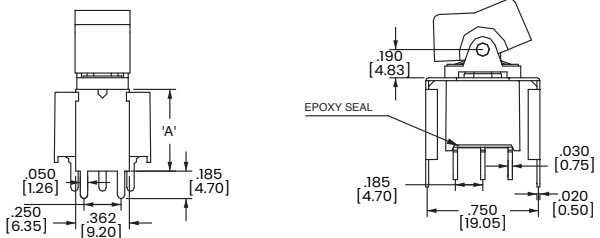


OPTION CODE	DIM.'A'
<b>VS4</b>	.461 [11.70]
<b>VS5</b>	.630 [16.00]

### P.C.MOUNTING

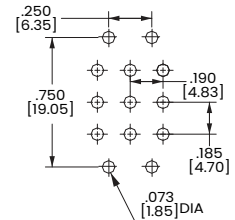


### U4-VS5 Three Pole



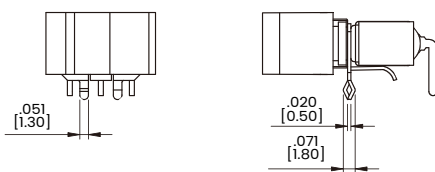
OPTION CODE	DIM.'A'
<b>U4</b>	.551 [14.00]
<b>VS5</b>	.630 [16.00]

### P.C.MOUNTING

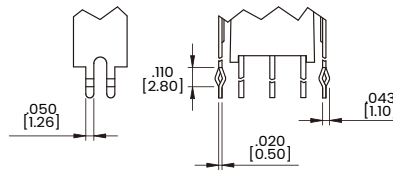


## Snap-In Termination Options

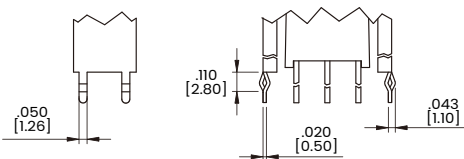
### M61



### VS21, VS31



### VS41, VS51



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

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