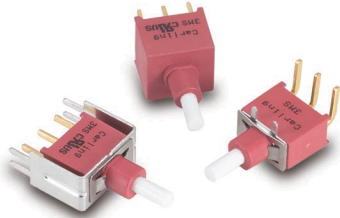
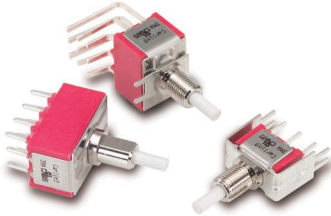




**3MN-Series**  
**Snap-Action** Miniature Pushbutton Switch



**3MS-Series**  
**Sealed Snap-Action** Miniature Pushbutton Switch



**3MA-Series**  
**Alternate Action** Miniature Pushbutton Switch

### Specifications

Contact Rating . . . . .	refer to ordering scheme
Electrical Life . . . . .	50,000 make & break cycles @ full load
Contact Resistance. . . . .	<i>3MN &amp; 3MA-Series:</i> 10 mΩ max. initial @ 2-4 VDC 100mA for both silver & gold plated contacts. <i>3MS-Series:</i> 50 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
Operating Temperature . . .	-30°C to +85°C
Index of Protection . . . . .	<i>3MS -Series:</i> IP68
Cap Installation Support . . .	<i>3MS-Series:</i> 10 lbs. max.
Solder Heat Resistance. . .	MIL-STD-202, Method 210
Actuator Travel . . . . .	.25°

### Materials

Case . . . . .	<i>3MN &amp; 3MA-Series:</i> Diallyl phthalate (DAP) (UL 94V-0) <i>3MS-Series:</i> Glass filled nylon 6/6, flame retardant, heat stabilized (UL 94V-0)
Plunger. . . . .	<i>3MN-Series:</i> Thermoplastic polyester, black <i>3MS &amp; 3MA-Series:</i> Glass filled nylon or glass filled polyester (UL 94V-0)
Bushing . . . . .	<i>3MN-Series:</i> Brass, nickel plated <i>3MA-Series:</i> Zinc, nickel plated
Housing. . . . .	<i>3MN &amp; 3MA-Series:</i> Stainless Steel
Switch Support Retainer . . .	<i>3MS-Series:</i> Stainless Steel
Terminal Seal . . . . .	Epoxy

### 3M-Series Optional Cap

To order a cap assembled on a switch, specify the switch number followed by the cap part number and the word "assembled".

Ex: 3MN-SP-7-P2-B6-M6QE-C13ASSEMBLED

To order caps in bulk, specify the Series, followed by the cap. Ex.) 3MN-C13



<b>1 SERIES OR SWITCH CATALOG NUMBER</b> 3MN, 3MS or 3MA			
<b>2 CAP SIZE</b>			
<b>C1</b>	round 7.6mm dia.	<b>C5</b>	round 14.5mm dia.
<b>C2</b>	round 9.35 mm dia.	<b>C6</b>	brass chrome plated (for 3MA w/ PL bushing)
<b>C3</b>	square 11.7 x 11.7mm	<b>C6</b>	brass chrome plated (for 3MA w/ PD bushing)
<b>C4</b>	round 5mm dia.		

<b>3 CAP COLOR</b>			
<b>1</b>	white	<b>5</b>	yellow
<b>2</b>	black	<b>6</b>	green
<b>3</b>	red	<b>7</b>	blue
<b>4</b>	orange		
<small>1 Black, white &amp; red standard. Other colors available. Consult factory.</small>			

**3MN-Series Ordering Scheme  
with Square Actuator**

**with Plunger Actuator**

**1 SERIES**
**3MN** Snap-Action Miniature Pushbutton Switch

**2 POLES**
**SP** single pole **DP** double pole
**3 CIRCUIT**

( ) - momentary

**7**      **ON**                                      **(ON)**
**4 ACTUATOR<sup>1</sup>**
**SQUARE ACTUATOR** (use with Color Options in Selection 5A & 5B.)

**AP1** square with no frame  
**AP2** square raised above frame  
**AP3** square flush with frame

**PLUNGER ACTUATOR** (use with Bushing Options in Selection 5)

**P0** 2.5mm short plunger(for B6 bushing only)  
**P1** 5.2mm plunger(for bushing B10,B11,B20,B21; 7.5mm for B6)  
**P2** 2.0mm plunger(for bushing B10,B11,B20,B21; 4.2mm for B6)

**5A ACTUATOR COLOR & 5B FRAME COLOR<sup>1,2</sup>**

1 white	4 orange	7 blue
2 black	5 yellow	8 brown
3 red	6 green	9 gray

1 Black, white and red are standard. Other colors available, consult factory for details.  
 2 Selection 5B is blank if actuator style is AP1 (no frame)

**OR**

**5 BUSHING**
**B6** Unthreaded (for terminations VS6-VS9 only)  
**B10** Threaded keyway  
**B11** Threaded with flat  
**B20** Unthreaded keyway  
**B21** Unthreaded with flat

**NOTE:**

 If ordering optional CAP with bushings B10, B11, B20 or B21, specify actuator P1.  
 For CAP with bushing B6, specify actuator P2.  
 For CAP options, see ordering scheme on page 35.

**6 TERMINATION**

<b>M1</b>	Solder Lug
<b>M2</b>	PCB
<b>M5-1</b>	Wire Wrap .750 [19.05]
<b>M5-3</b>	Wire Wrap .425 [10.80]
<b>M6</b>	PC Mount, 90° horizontal
<b>M7</b>	PC Mount, 90° vertical
<b>VS2</b>	PC Mount, U bracket, .620 mounting x .460 high
<b>VS3</b>	PC Mount, U bracket, .620 mounting x .630 high
<b>VS4</b>	PC Mount, U bracket, .750 mounting x .460 high
<b>VS5</b>	PC Mount, U bracket, .750 mounting x .630 high
<b>VS6</b>	PC Mount, U bracket, .460 high (for B6 bushing only)
<b>VS7</b>	PC Mount, U bracket, .630 high (for B6 bushing only)
<b>VS8</b>	PC Mount, U bracket, .460 high (for B6 bushing only)
<b>VS9</b>	PC Mount, U bracket, .630 high (for B6 bushing only)

**7 CONTACT**

	Material	Terminal Plating	Rating	Approvals
<b>G</b>	silver <sup>1</sup>	gold over silver <sup>3</sup>	1A@120VAC or 28VDC	UL, CUL
<b>Q</b>	silver <sup>1</sup>	silver <sup>1</sup>	1A@120VAC or 28VDC	UL, CUL
<b>R</b>	gold <sup>2</sup>	gold <sup>2</sup>	0.4VA max. @20V max (AC/DC)	

**NOTE:**

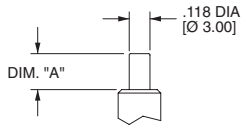
Tin-lead option available with PC type terminations only.  
 1 Moveable contact & terminals: copper alloy, silver plate  
 2 Moveable contact & terminals: copper alloy with gold plate over nickel plate  
 3 Terminals: silver plate with outer layer in gold plating

**8 EPOXY SEAL**
**E** epoxy seal



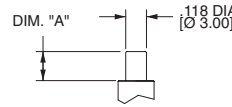
## 3MN-Series Dimensional Specifications: in. [mm]

### PLUNGER



OPTION CODE	DIM. "A"
P0	.000 [0.00]
P1	.205 [5.20]
P2	.079 [2.00]

FOR B10,B11,B20,B21 ONLY

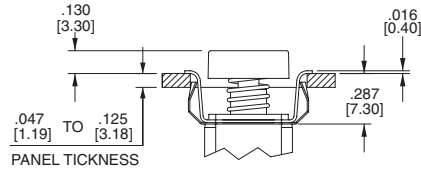
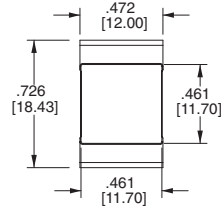


OPTION CODE	DIM. "A"
P0	.098 [2.50]
P1	.295 [7.50]
P2	.165 [4.20]

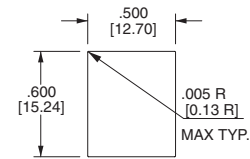
FOR B6 ONLY

### ACTUATOR

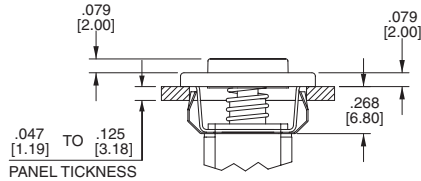
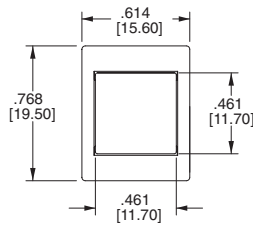
#### AP1



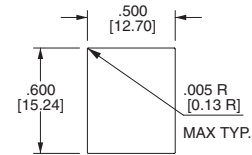
#### PANEL MOUNTING



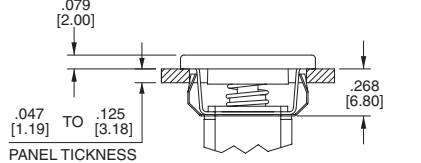
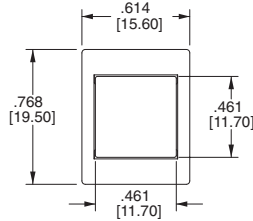
#### AP2



#### PANEL MOUNTING

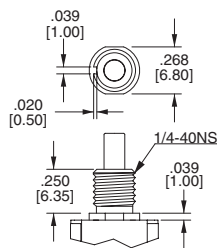


#### AP3

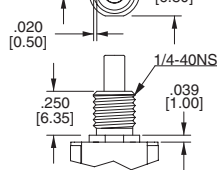


### BUSHING

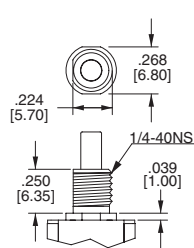
**B10**  
STANDARD KEYWAY  
THREADED SHOWN



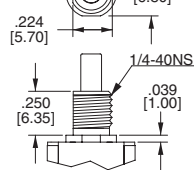
**B20**  
STANDARD KEYWAY  
NON-THREADED



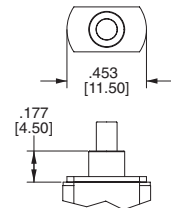
**B11**  
THREADED SHOWN  
WITH FLAT



**B21**  
NON-THREADED  
WITH FLAT

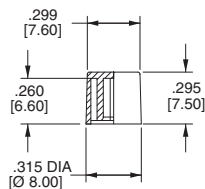


**B6**  
NON-THREADED  
(FOR TERMINATION  
OPTIONS VS6-VS9 ONLY)

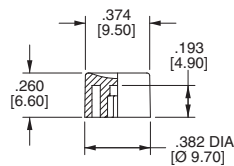


### CAP

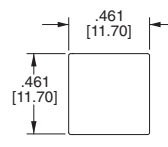
#### C1



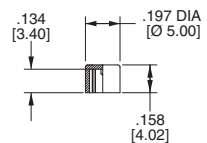
#### C2



#### C3



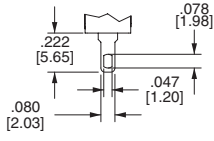
#### C4



## 3MN-Series Dimensional Specifications: in. [mm]

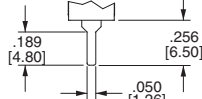
### TERMINATION

**M1**



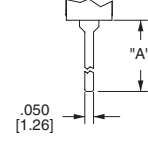
THK .030 [0.75]

**M2**



THK .030 [0.75]

**M5**

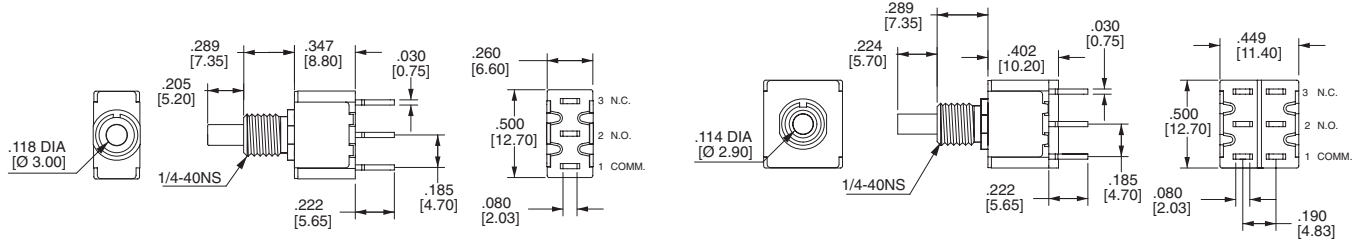


THK .030 [0.75]

OPTION CODE	DIM. "A"
M5-1	.750 [19.05]
M5-3	.425 [10.80]

### SINGLE POLE

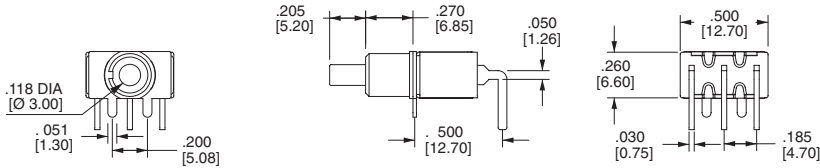
### DOUBLE POLE



**M6**

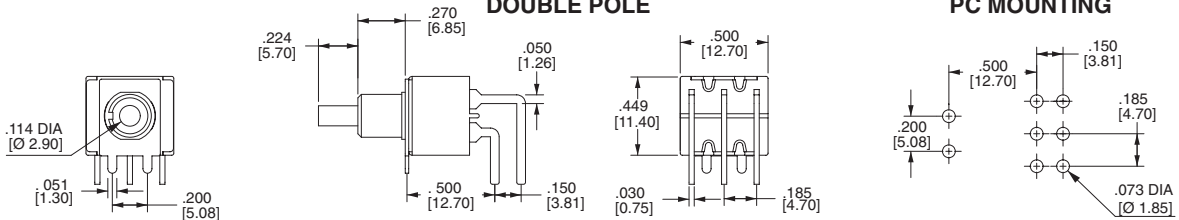
### SINGLE POLE

### PC MOUNTING



### DOUBLE POLE

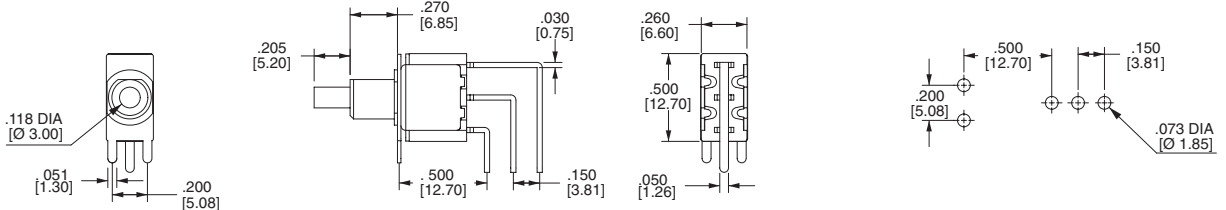
### PC MOUNTING



**M7**

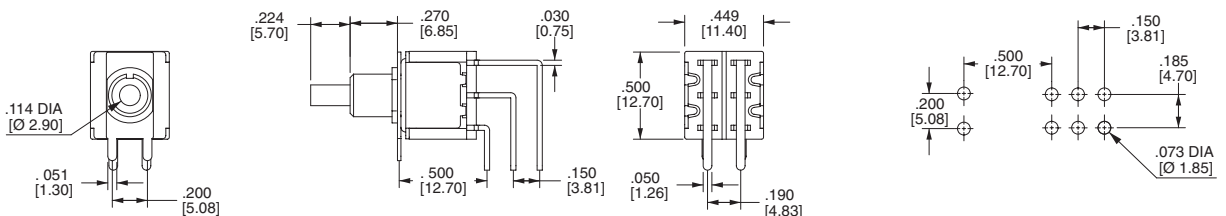
### SINGLE POLE

### PC MOUNTING



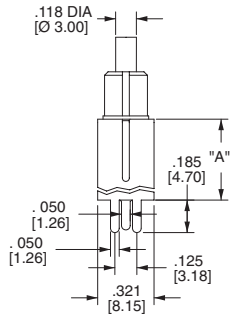
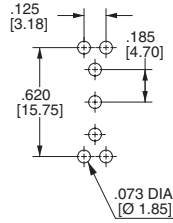
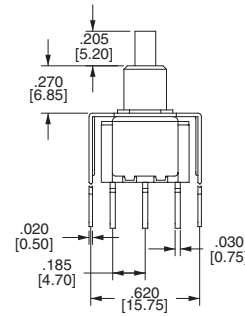
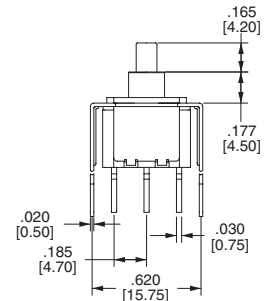
### DOUBLE POLE

### PC MOUNTING

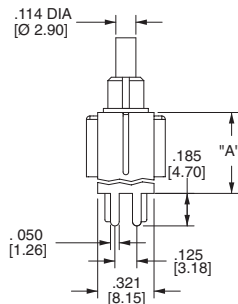
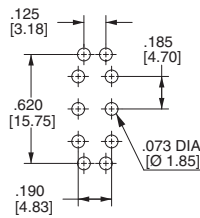
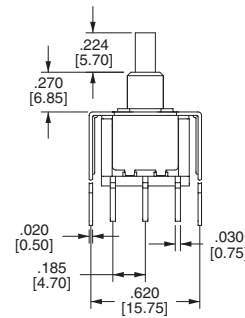
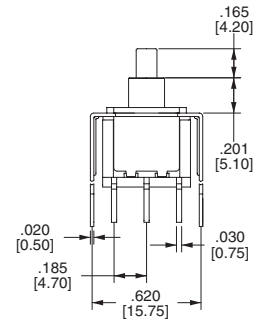


**3MN-Series Dimensional Specifications: in. [mm]**
**TERMINATION**
**SINGLE POLE**

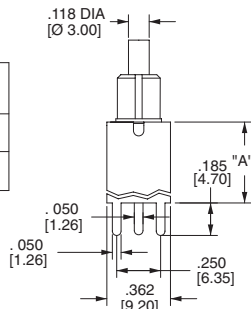
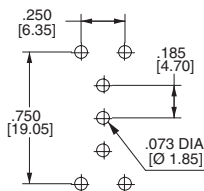
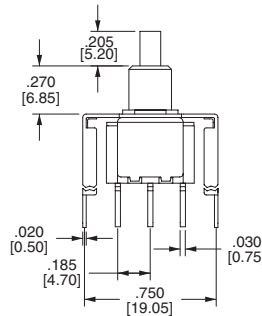
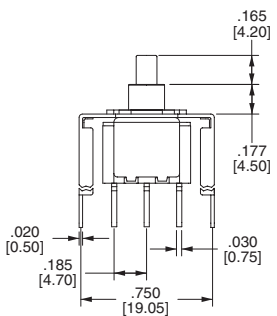
OPTION CODE	DIM. "A"
<b>VS2</b>	.460 [11.68]
<b>VS3</b>	.630 [16.00]
<b>VS7</b>	[16.00]


**PC MOUNTING**

**VS2-VS3**

**VS6-VS7  
(For B6 Bushing Only)**

**DOUBLE POLE**

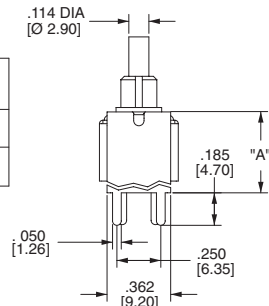
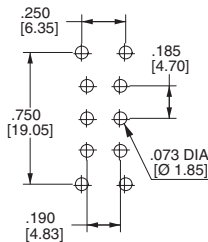
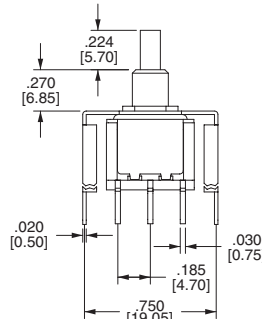
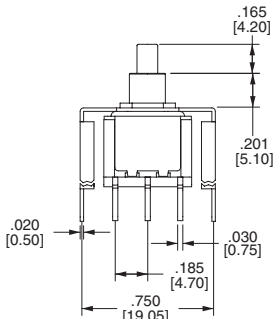
OPTION CODE	DIM. "A"
<b>VS2</b>	.460 [11.68]
<b>VS6</b>	.630 [16.00]
<b>VS3</b>	[16.00]
<b>VS7</b>	[16.00]


**PC MOUNTING**

**VS2-VS3**

**VS6-VS7  
(For B6 Bushing Only)**

**SINGLE POLE**

OPTION CODE	DIM. "A"
<b>VS4</b>	.460 [11.68]
<b>VS8</b>	[11.68]
<b>VS5</b>	.630 [16.00]
<b>VS9</b>	[16.00]


**PC MOUNTING**

**VS4-VS5**

**VS8-VS9  
(For B6 Bushing Only)**

**DOUBLE POLE**

OPTION CODE	DIM. "A"
<b>VS4</b>	.460 [11.68]
<b>VS8</b>	[11.68]
<b>VS5</b>	.630 [16.00]
<b>VS9</b>	[16.00]


**PC MOUNTING**

**VS4-VS5**

**VS8-VS9  
(For B6 Bushing Only)**


## 3MS-Series Dimensional Specifications: in. [mm]

### PLUNGER

OPTION CODE	DIM. "A"
<b>P1</b>	.173 [4.40]
<b>P2</b>	.220 [5.60]
<b>P3</b>	.087 [2.20]

FOR B1 BUSHING

OPTION CODE	DIM. "A"
<b>P1</b>	.276 [7.00]
<b>P2</b>	.327 [8.30]
<b>P3</b>	.193 [4.90]

FOR B4 BUSHING

### BUSHING

**B1**

1/4-40NS  
.350 [8.90]

**B4**

.250 [6.35]

### TERMINATION

**M1**

.078 [1.98]  
.152 [3.85]  
EPOXY SEAL  
.080 [2.03]  
.047 [1.20]  
THK .030 [0.75]

**M2**

EPOXY SEAL  
.185 [4.70]  
.050 [1.26]  
THK .030 [0.75]

**SINGLE POLE**

.236 DIA [Ø 6.00]  
.276 [7.00]  
.663 [16.85]  
EPOXY SEAL  
.260 [6.60]  
.030 [0.75]  
.500 [12.70]  
.185 [4.70]  
.185 [4.70]  
.050 [1.26]

**DOUBLE POLE**

.205 DIA [Ø 5.20]  
.260 [6.60]  
.663 [16.85]  
EPOXY SEAL  
.449 [11.40]  
.030 [0.75]  
.500 [12.70]  
.185 [4.70]  
.185 [4.70]  
.050 [1.26]  
.190 [4.83]

### M6

.236 DIA [Ø 6.00]  
.200 [5.08]  
.050 [1.26]

**SINGLE POLE**

.276 [7.00]  
.663 [16.85]  
EPOXY SEAL  
.114 DIA [Ø 2.90]  
.050 [1.26]  
.500 [12.70]

.500 [12.70]  
.260 [6.60]  
.030 [0.75]  
.185 [4.70]

**PC MOUNTING**

.185 [4.70]  
.500 [12.70]  
.200 [5.08]  
.073 DIA [Ø 1.85]

.205 DIA [Ø 5.20]  
.200 [5.08]  
.050 [1.26]

**DOUBLE POLE**

.260 [6.60]  
.663 [16.85]  
EPOXY SEAL  
.114 DIA [Ø 2.90]  
.050 [1.26]  
.500 [12.70]  
.150 [3.81]

.500 [12.70]  
.449 [11.40]  
.030 [0.75]  
.185 [4.70]

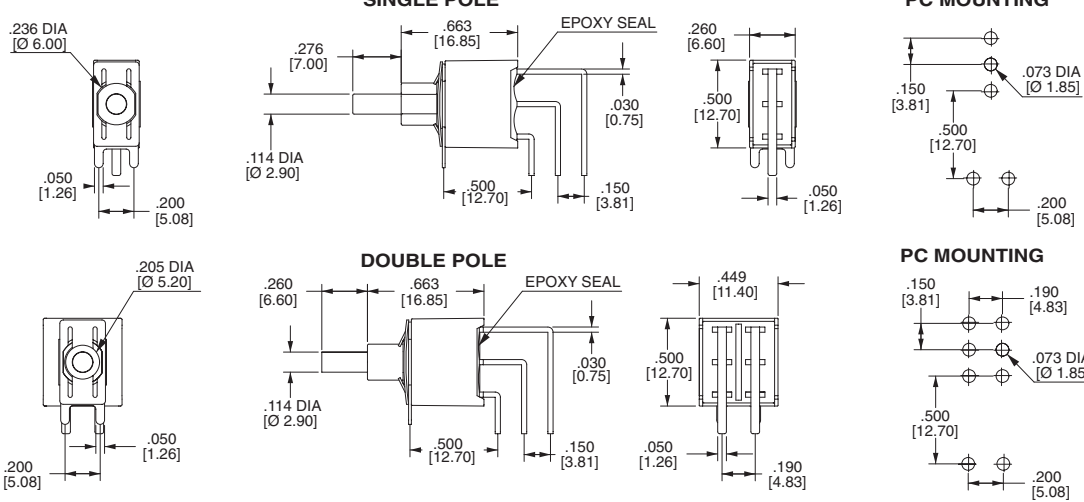
**PC MOUNTING**

.185 [4.70]  
.150 [3.81]  
.500 [12.70]  
.200 [5.08]  
.073 DIA [Ø 1.85]

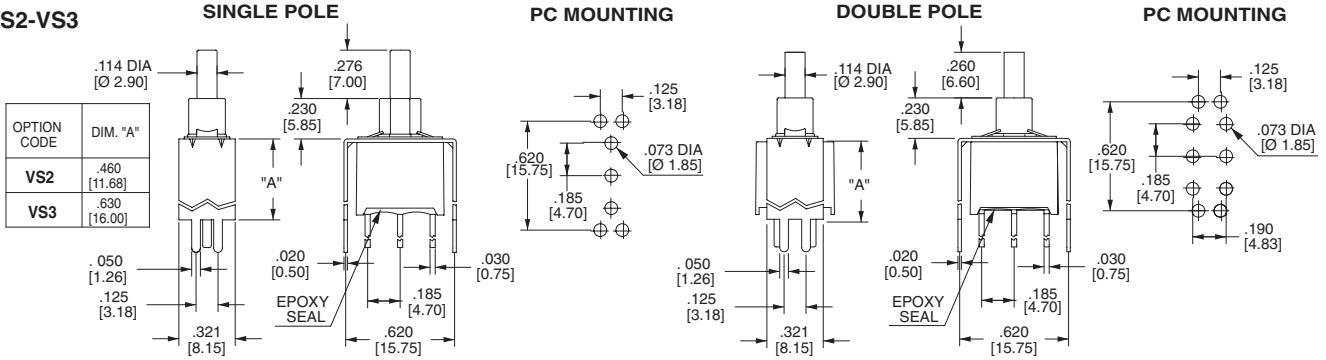
**3MS-Series Dimensional Specifications: in. [mm]**

**TERMINATION**

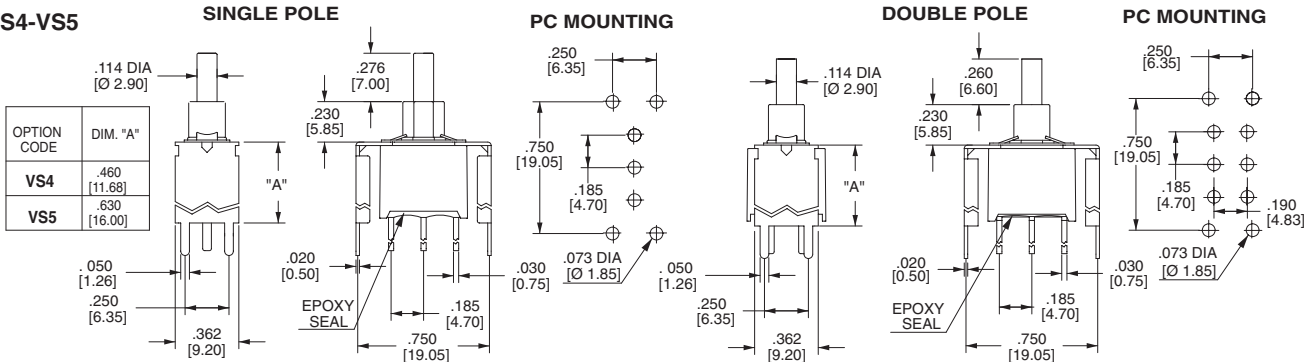
**M7**



**VS2-VS3**



**VS4-VS5**

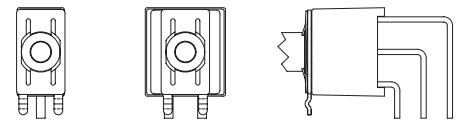


**SNAP-IN TERMINATION OPTIONS**

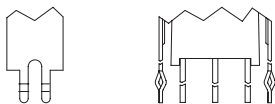
**M61**



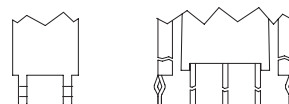
**M71**



**VS21, VS31**

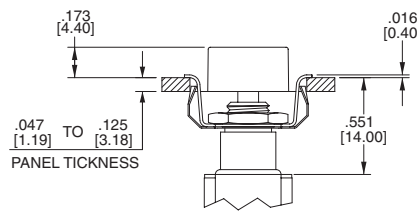
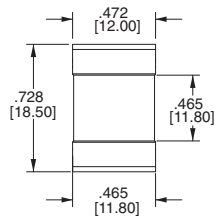
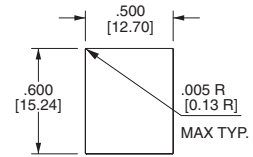
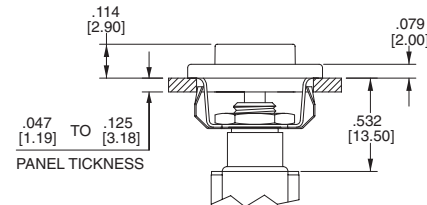
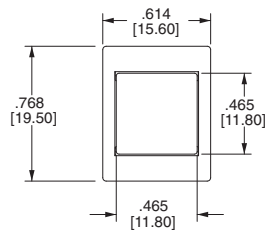
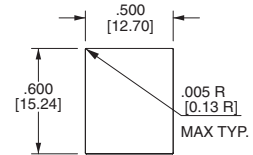
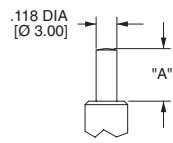


**VS41, VS51**

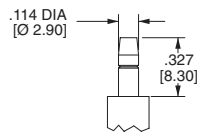
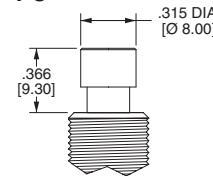
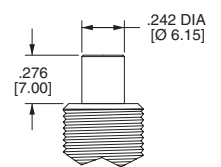
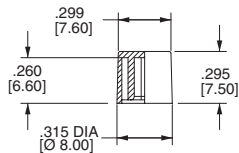
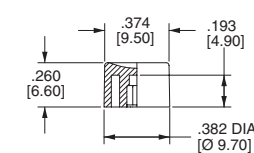
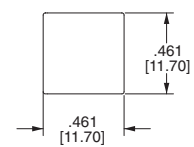
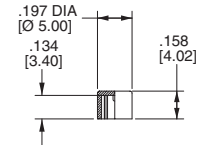
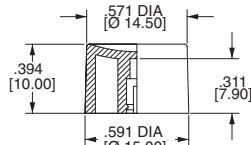
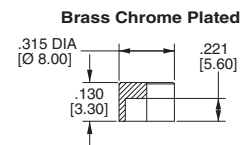
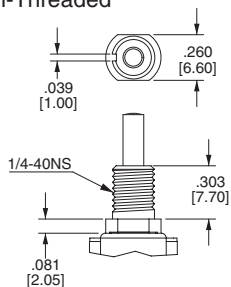
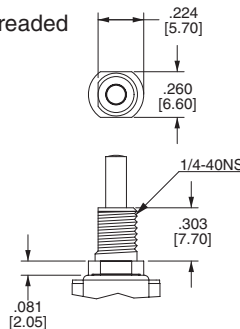
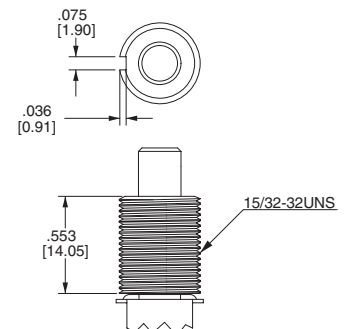


M61, M71, VS21, VS31, VS41, VS51 have the same P.C. mounting but with snap-in bracket.



**3MA-Series Dimensional Specifications: in. [mm]**
**ACTUATOR**
**AP1**

**PANEL MOUNTING**

**AP2**

**PANEL MOUNTING**

**PLUNGER**
**PA,PI**


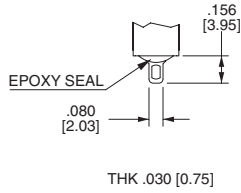
OPTION CODE	DIM. "A"
PA	.299 [7.60]
PI	.244 [6.20]

**PL**

**PC**

**Brass Chrome Plated**
**PD**

**PC, PD Plunger must fit with BD bushing**
**CAP**
**C1**

**C2**

**C3**

**C4**

**C5**

**For PL Bushing Only**
**C6**

**For PD Bushing Only**
**BUSHING**
**B10 Threaded  
B20 Non-Threaded**

**B21 Non-Threaded**

**BD**


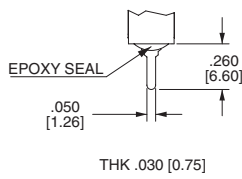
**3MA-Series Dimensional Specifications: in. [mm]**

**TERMINATION**

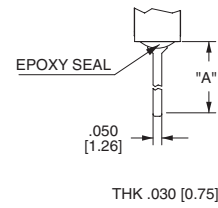
**M1**



**M2**



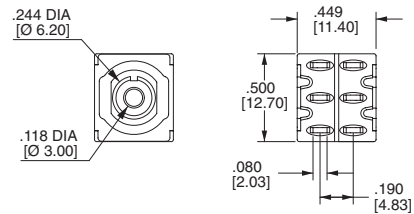
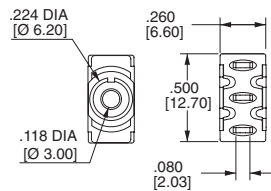
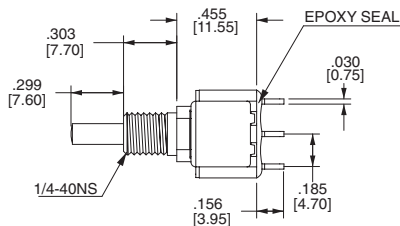
**M5**



OPTION CODE	DIM. "A"
<b>M5-1</b>	.750 [19.05]
<b>M5-2</b>	.964 [24.48]
<b>M5-3</b>	.425 [10.80]
<b>M5-4</b>	1.062 [26.97]

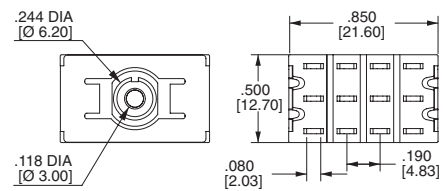
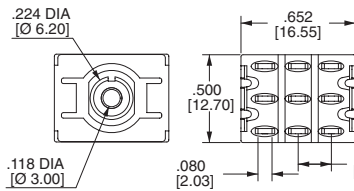
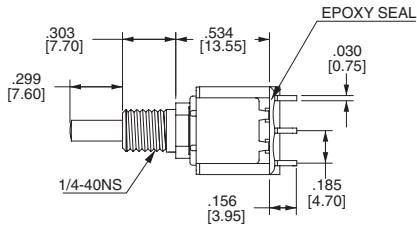
**SINGLE POLE**

**DOUBLE POLE**



**3 POLE**

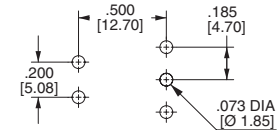
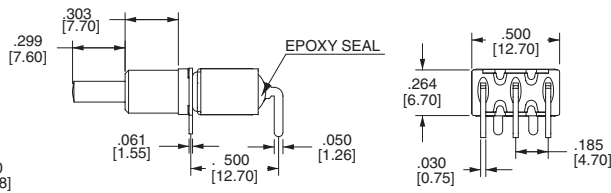
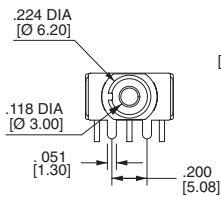
**4 POLE**



**M6**

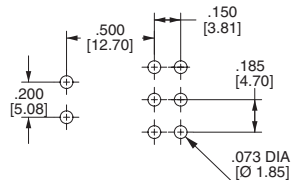
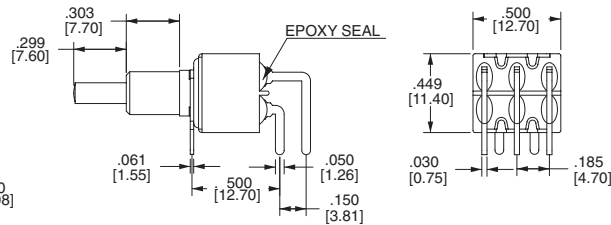
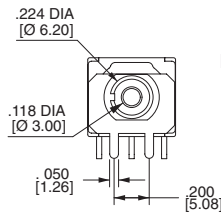
**SINGLE POLE**

**PC MOUNTING**



**DOUBLE POLE**

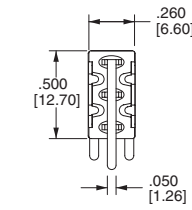
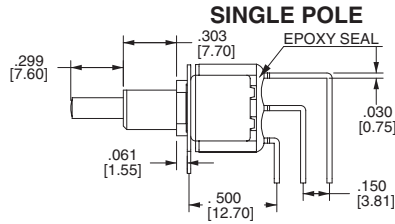
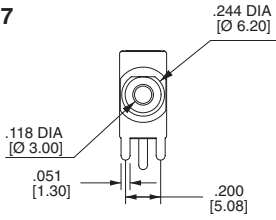
**PC MOUNTING**



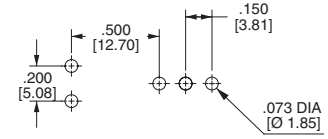
## 3MA-Series Dimensional Specifications: in. [mm]

### TERMINATION

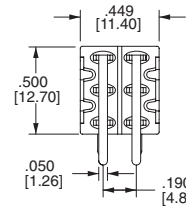
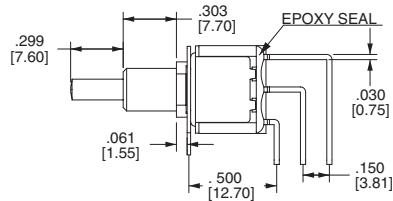
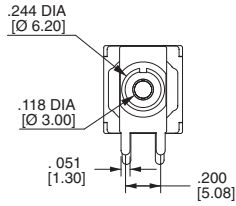
M7



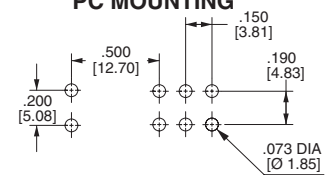
PC MOUNTING



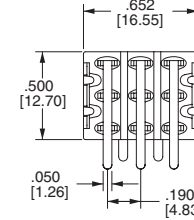
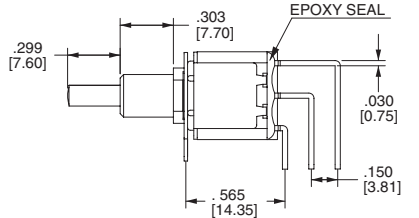
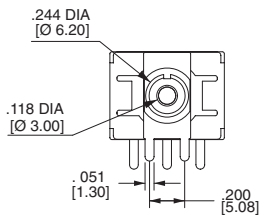
DOUBLE POLE



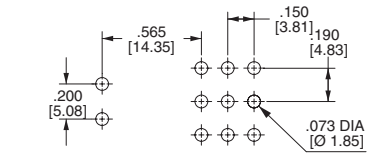
PC MOUNTING



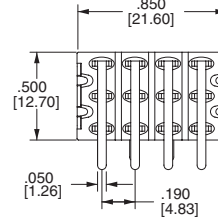
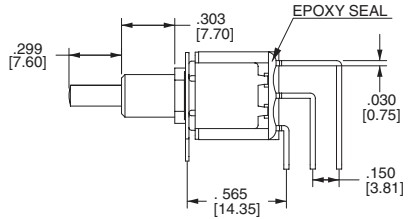
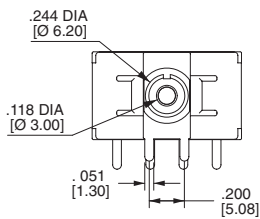
THREE POLE



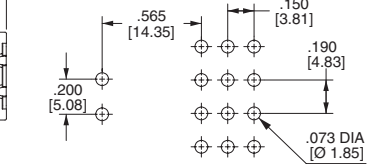
PC MOUNTING



FOUR POLE

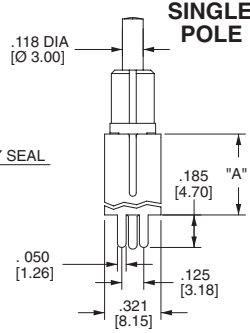
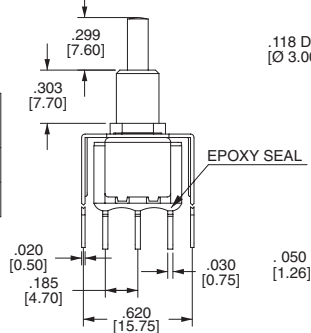


PC MOUNTING

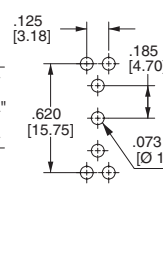


VS2-VS3

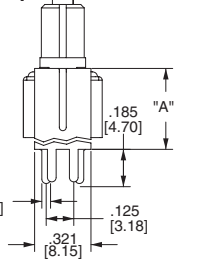
OPTION CODE	DIM. "A"
VS2	.460 [11.68]
VS3	.630 [16.00]



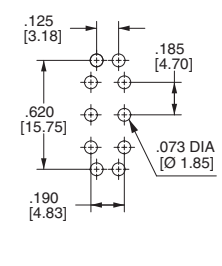
SINGLE POLE PC MOUNTING



DOUBLE POLE PC MOUNTING

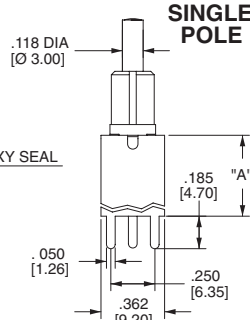
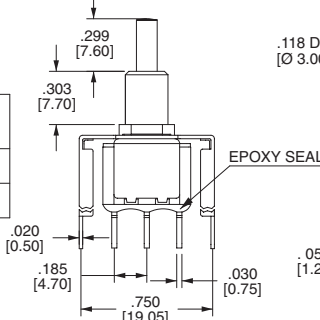


PC MOUNTING

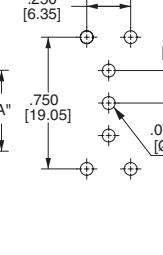


VS4-VS5

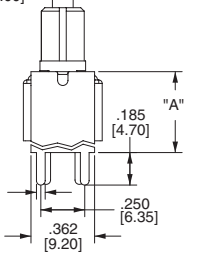
OPTION CODE	DIM. "A"
VS4	.460 [11.68]
VS5	.630 [16.00]



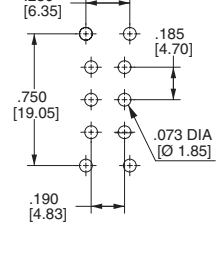
SINGLE POLE PC MOUNTING



DOUBLE POLE PC MOUNTING



PC MOUNTING





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Мы молодая и активно развивающаяся компания в области поставок электронных компонентов. Мы поставляем электронные компоненты отечественного и импортного производства напрямую от производителей и с крупнейших складов мира.

Благодаря сотрудничеству с мировыми поставщиками мы осуществляем комплексные и плановые поставки широчайшего спектра электронных компонентов.

Собственная эффективная логистика и склад в обеспечивает надежную поставку продукции в точно указанные сроки по всей России.

Мы осуществляем техническую поддержку нашим клиентам и предпродажную проверку качества продукции. На все поставляемые продукты мы предоставляем гарантию .

Осуществляем поставки продукции под контролем ВП МО РФ на предприятия военно-промышленного комплекса России , а также работаем в рамках 275 ФЗ с открытием отдельных счетов в уполномоченном банке. Система менеджмента качества компании соответствует требованиям ГОСТ ISO 9001.

Минимальные сроки поставки, гибкие цены, неограниченный ассортимент и индивидуальный подход к клиентам являются основой для выстраивания долгосрочного и эффективного сотрудничества с предприятиями радиоэлектронной промышленности, предприятиями ВПК и научно-исследовательскими институтами России.

С нами вы становитесь еще успешнее!

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