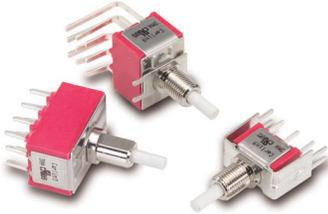




3MN-Series
Snap-Action Miniature Pushbutton Switch



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 & 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 Travel25°

Materials

Case	<i>3MN & 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 & 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 & 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

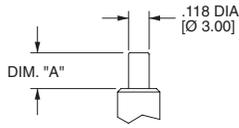
To order caps in bulk, specify the Series, followed by the cap. Ex.) 3MN-C13



<p>1 SERIES OR SWITCH CATALOG NUMBER 3MN, 3MS or 3MA</p>	<p>3 CAP COLOR</p> <table border="0" style="width: 100%;"> <tr> <td>1 white</td> <td>5 yellow</td> </tr> <tr> <td>2 black</td> <td>6 green</td> </tr> <tr> <td>3 red</td> <td>7 blue</td> </tr> <tr> <td>4 orange</td> <td></td> </tr> </table> <p><small>1 Black, white & red standard. Other colors available. Consult factory.</small></p>	1 white	5 yellow	2 black	6 green	3 red	7 blue	4 orange	
1 white	5 yellow								
2 black	6 green								
3 red	7 blue								
4 orange									
<p>2 CAP SIZE</p> <table border="0" style="width: 100%;"> <tr> <td>C1 round 7.6mm dia.</td> <td>C5 round 14.5mm dia.</td> </tr> <tr> <td>C2 round 9.35 mm dia.</td> <td>(for 3MA w/ PL bushing)</td> </tr> <tr> <td>C3 square 11.7 x 11.7mm</td> <td>C6 brass chrome plated</td> </tr> <tr> <td>C4 round 5mm dia.</td> <td>(for 3MA w/ PD bushing)</td> </tr> </table>	C1 round 7.6mm dia.	C5 round 14.5mm dia.	C2 round 9.35 mm dia.	(for 3MA w/ PL bushing)	C3 square 11.7 x 11.7mm	C6 brass chrome plated	C4 round 5mm dia.	(for 3MA w/ PD bushing)	
C1 round 7.6mm dia.	C5 round 14.5mm dia.								
C2 round 9.35 mm dia.	(for 3MA w/ PL bushing)								
C3 square 11.7 x 11.7mm	C6 brass chrome plated								
C4 round 5mm dia.	(for 3MA w/ PD bushing)								

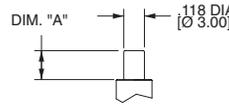
3MN-Series Dimensional Specifications: in. [mm]

PLUNGER



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

FOR B10,B11,B20,B21 ONLY

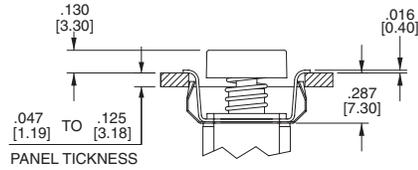
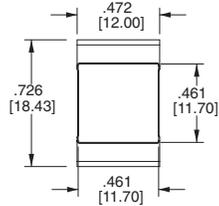


OPTION CODE	DIM. "A"
P0	.098 [2.50]
P1	.295 [7.50]
P2	.165 [4.20]

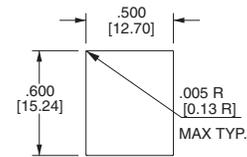
FOR B6 ONLY

ACTUATOR

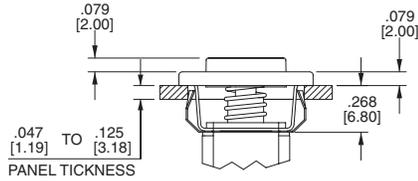
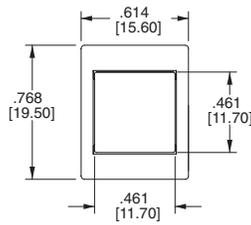
AP1



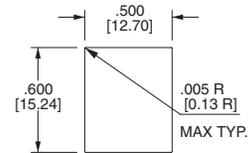
PANEL MOUNTING



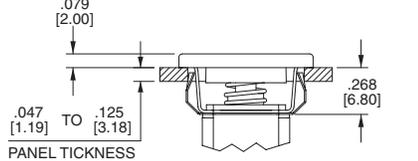
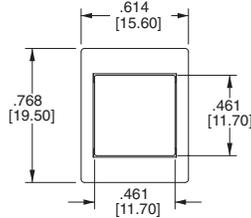
AP2



PANEL MOUNTING

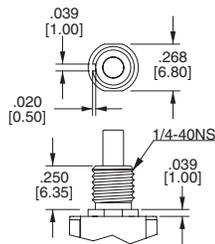


AP3

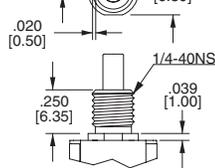


BUSHING

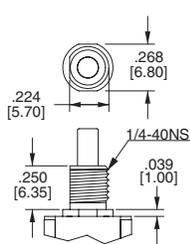
B10
STANDARD KEYWAY
THREADED SHOWN



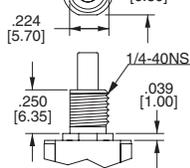
B20
STANDARD KEYWAY
NON-THREADED



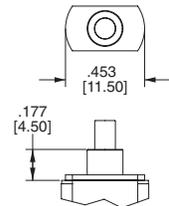
B11
THREADED SHOWN
WITH FLAT



B21
NON-THREADED
WITH FLAT

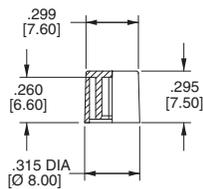


B6
NON-THREADED
(FOR TERMINATION
OPTIONS VS6-VS9 ONLY)

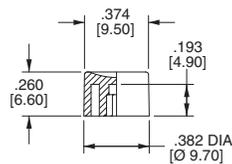


CAP

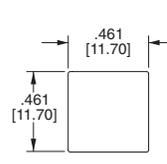
C1



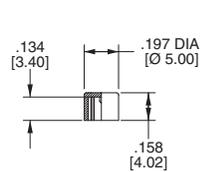
C2



C3



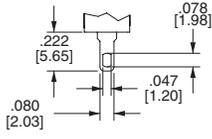
C4



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

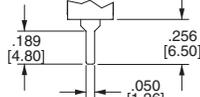
TERMINATION

M1



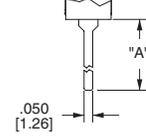
THK .030 [0.75]

M2



THK .030 [0.75]

M5

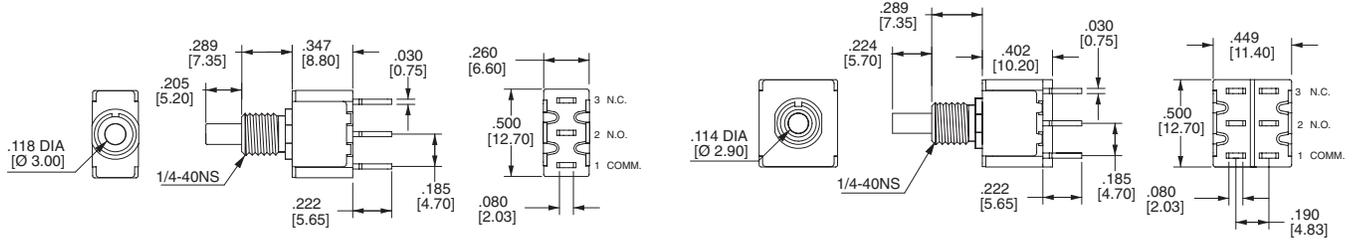


THK .030 [0.75]

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

SINGLE POLE

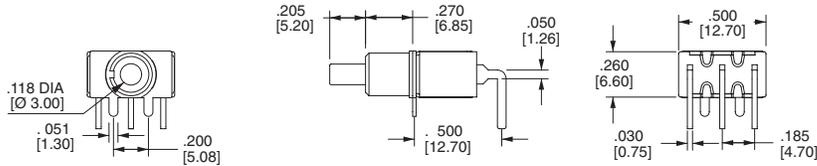
DOUBLE POLE



M6

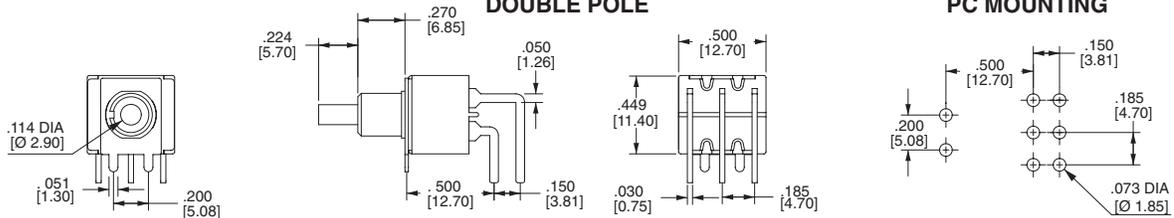
SINGLE POLE

PC MOUNTING



DOUBLE POLE

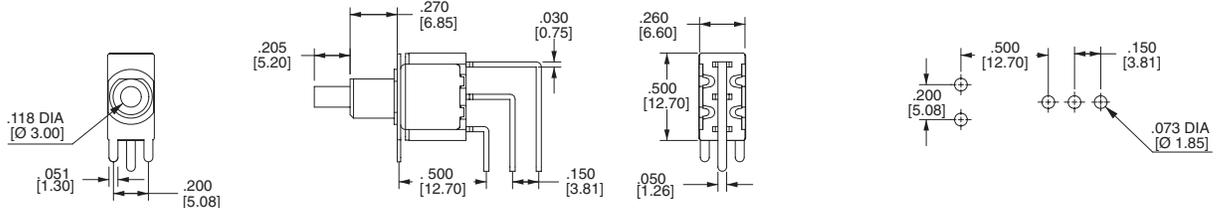
PC MOUNTING



M7

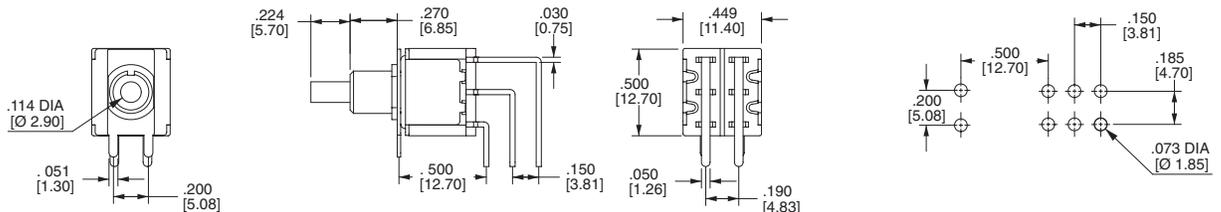
SINGLE POLE

PC MOUNTING



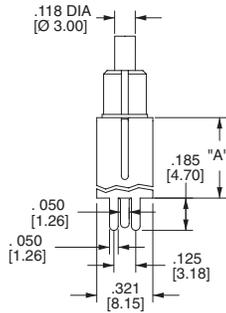
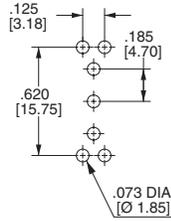
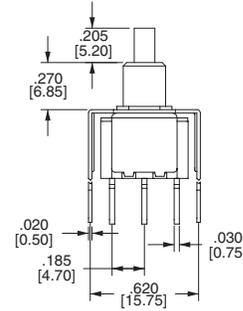
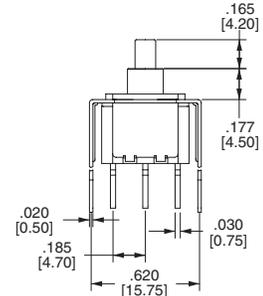
DOUBLE POLE

PC MOUNTING

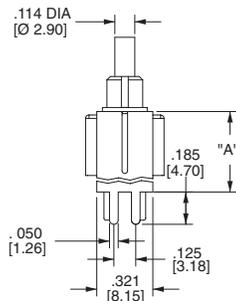
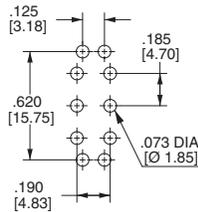
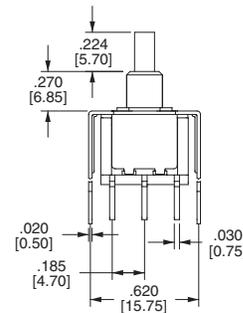
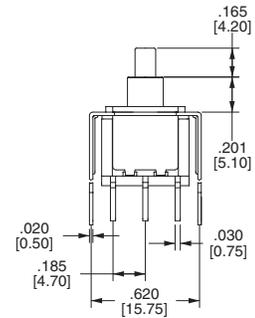


3MN-Series Dimensional Specifications: in. [mm]
TERMINATION
SINGLE POLE

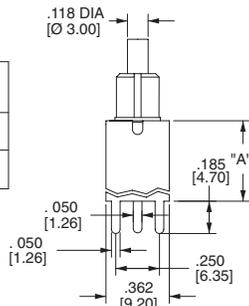
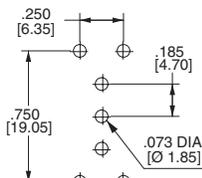
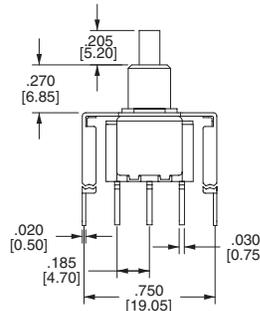
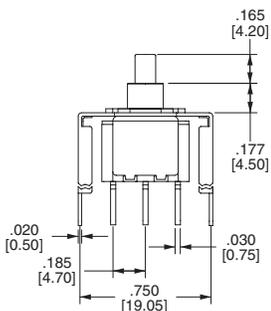
OPTION CODE	DIM. "A"
VS2	.460 [11.68]
VS3	.630 [16.00]
VS7	[16.00]


PC MOUNTING

VS2-VS3

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

DOUBLE POLE

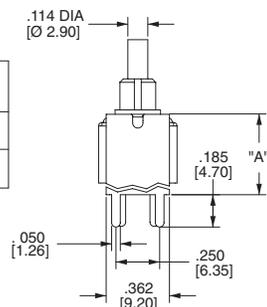
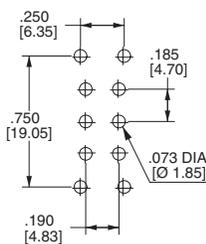
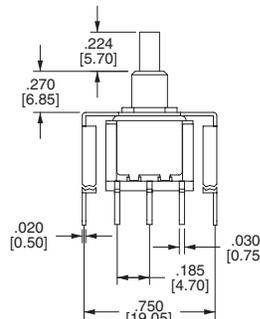
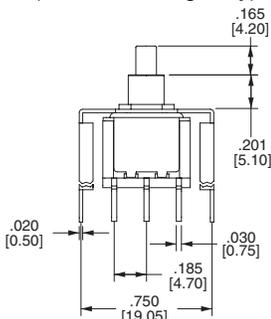
OPTION CODE	DIM. "A"
VS2	.460 [11.68]
VS6	[11.68]
VS3	.630 [16.00]
VS7	[16.00]


PC MOUNTING

VS2-VS3

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

SINGLE POLE

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


PC MOUNTING

VS4-VS5

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

DOUBLE POLE

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


PC MOUNTING

VS4-VS5

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


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

PLUNGER

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

FOR B1 BUSHING

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

FOR B4 BUSHING

BUSHING

B1

1/4-40NS
.350 [8.90]

B4

.250 [6.35]

TERMINATION

M1

EPOXY SEAL
THK .030 [0.75]

M2

EPOXY SEAL
THK .030 [0.75]

SINGLE POLE

EPOXY SEAL

DOUBLE POLE

EPOXY SEAL

M6

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

SINGLE POLE

EPOXY SEAL

PC MOUNTING

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

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

DOUBLE POLE

EPOXY SEAL

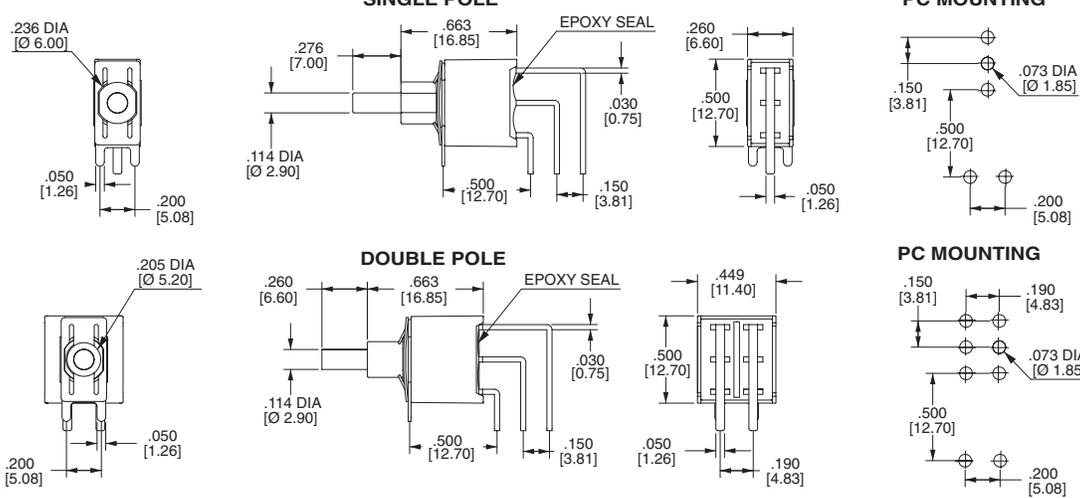
PC MOUNTING

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

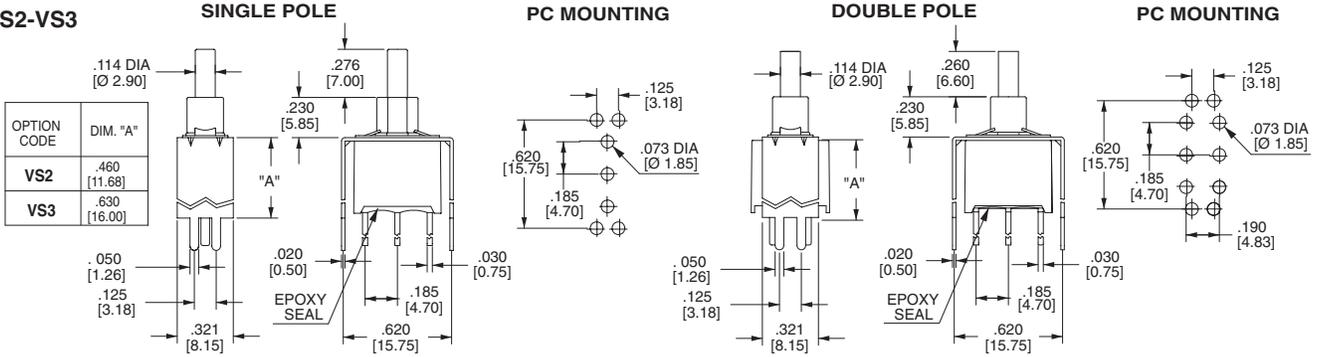
3MS-Series Dimensional Specifications: in. [mm]

TERMINATION

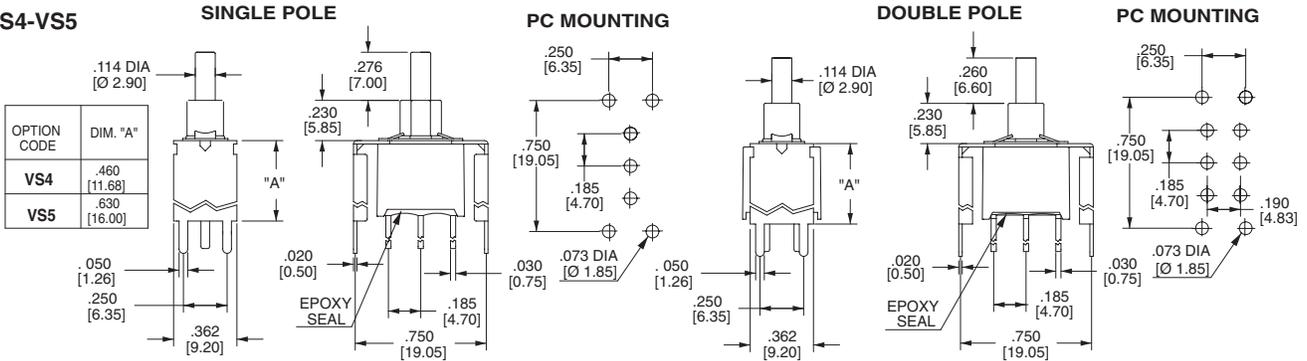
M7



VS2-VS3



VS4-VS5

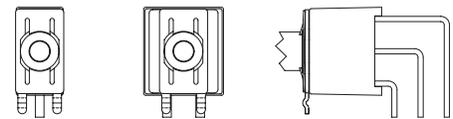


SNAP-IN TERMINATION OPTIONS

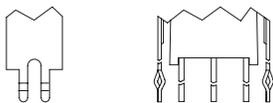
M61



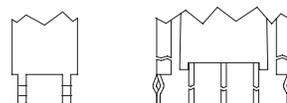
M71



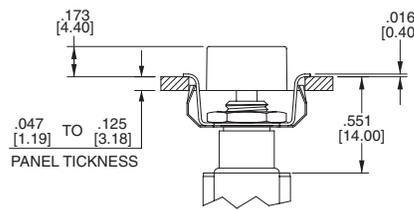
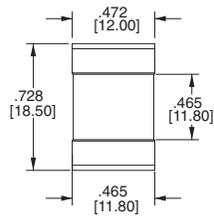
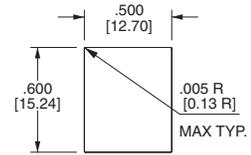
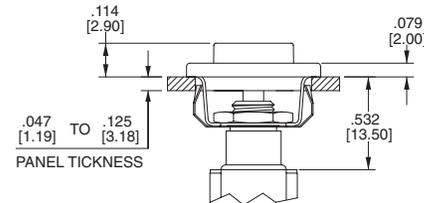
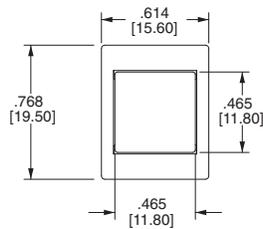
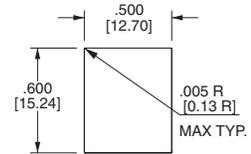
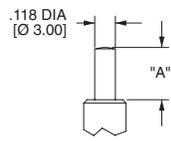
VS21, VS31



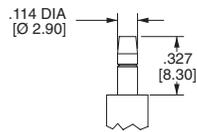
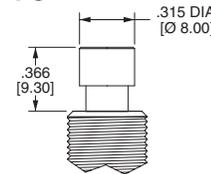
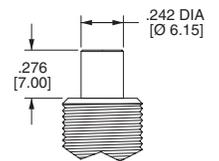
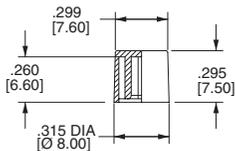
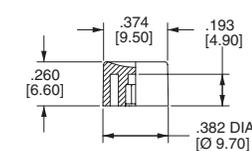
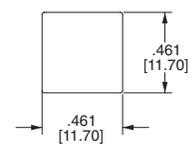
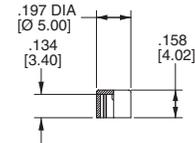
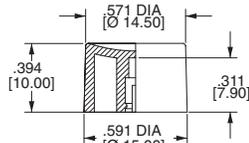
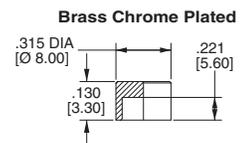
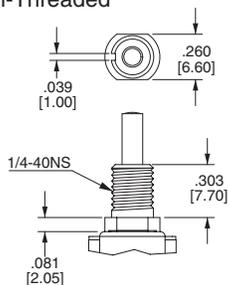
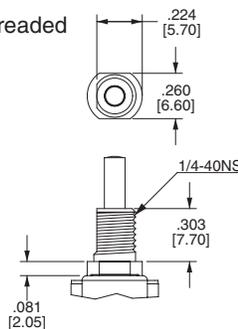
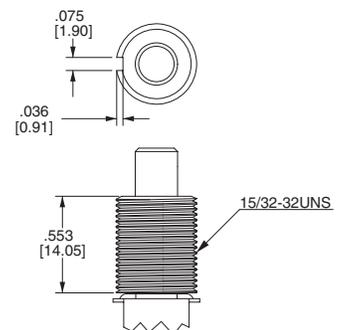
VS41, VS51



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


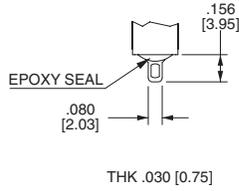
OPTION CODE	DIM. "A"
PA	.299 [7.60]
PI	.244 [6.20]

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


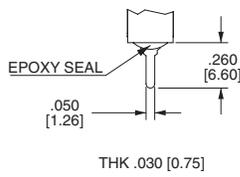
3MA-Series Dimensional Specifications: in. [mm]

TERMINATION

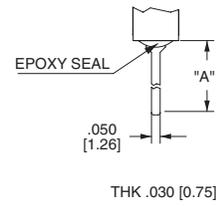
M1



M2



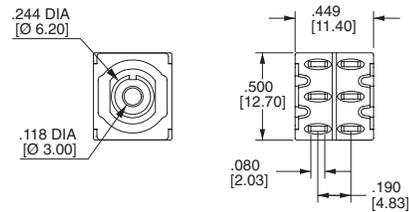
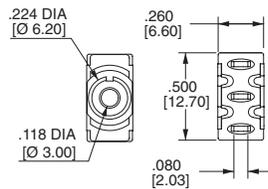
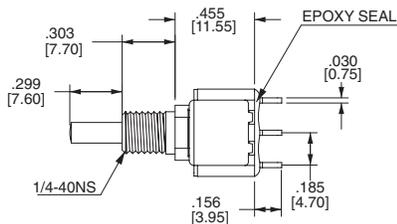
M5



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

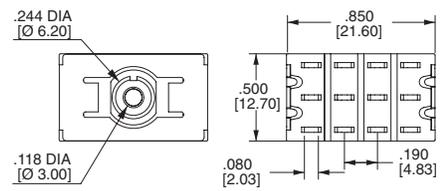
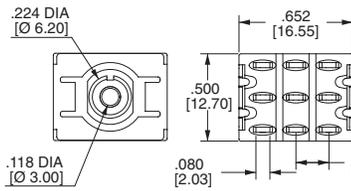
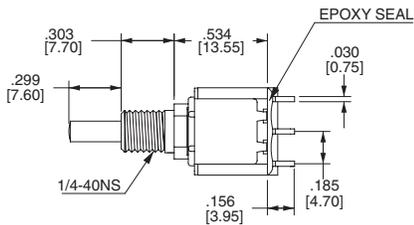
SINGLE POLE

DOUBLE POLE



3 POLE

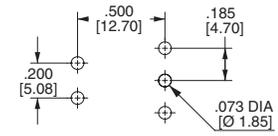
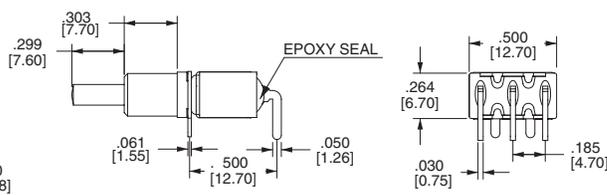
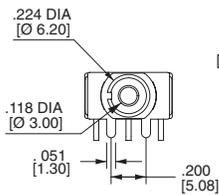
4 POLE



M6

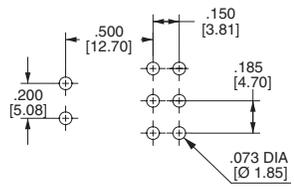
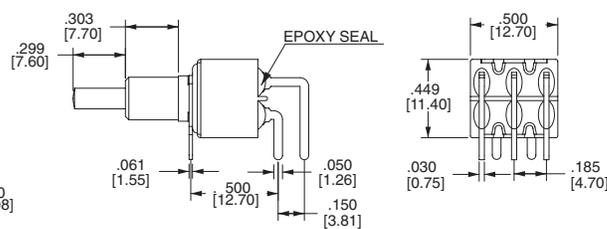
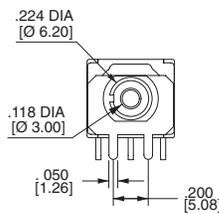
SINGLE POLE

PC MOUNTING



DOUBLE POLE

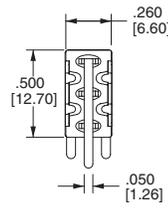
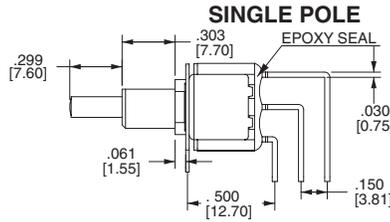
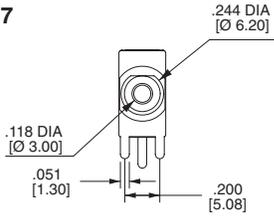
PC MOUNTING



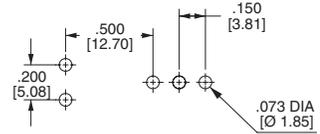
3MA-Series Dimensional Specifications: in. [mm]

TERMINATION

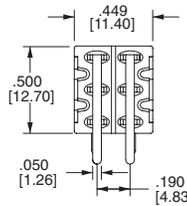
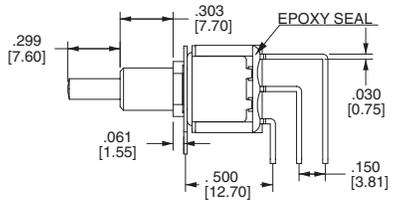
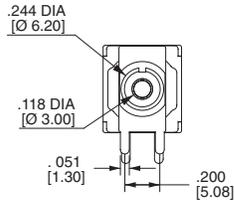
M7



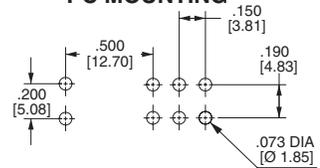
PC MOUNTING



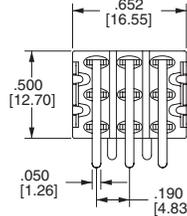
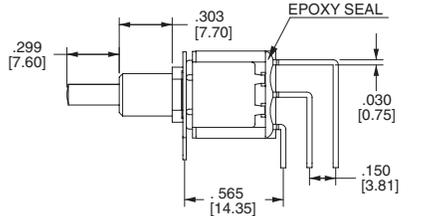
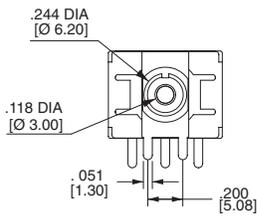
DOUBLE POLE



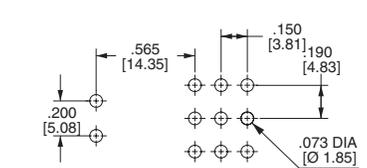
PC MOUNTING



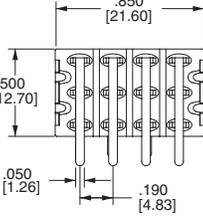
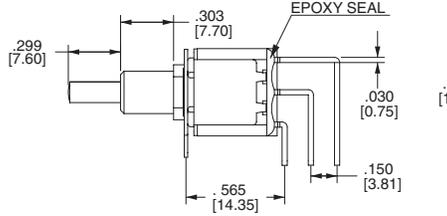
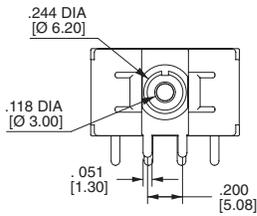
THREE POLE



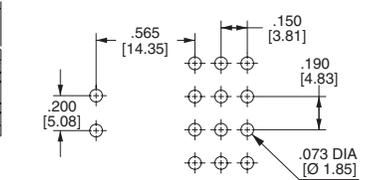
PC MOUNTING



FOUR POLE

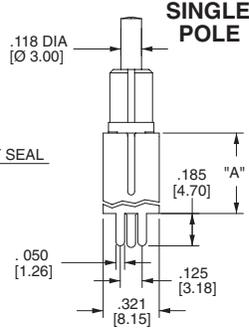
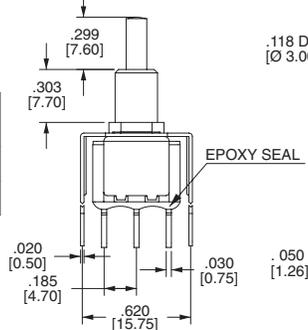


PC MOUNTING

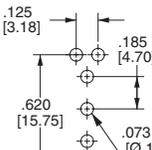


VS2-VS3

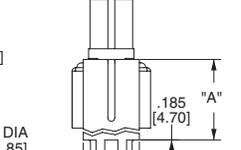
OPTION CODE	DIM. "A"
VS2	.460 [11.68]
VS3	.630 [16.00]



SINGLE POLE PC MOUNTING

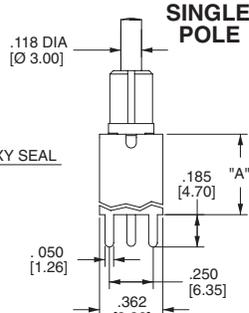
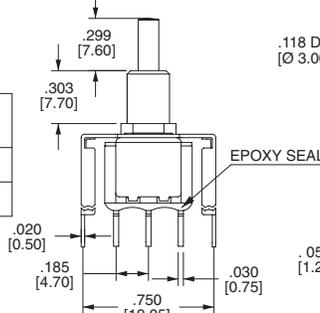


DOUBLE POLE PC MOUNTING

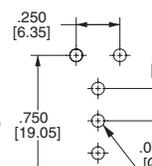


VS4-VS5

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



SINGLE POLE PC MOUNTING



DOUBLE POLE PC MOUNTING

