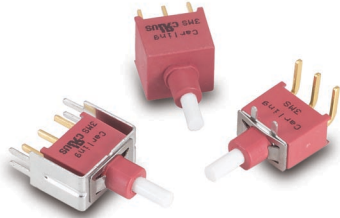
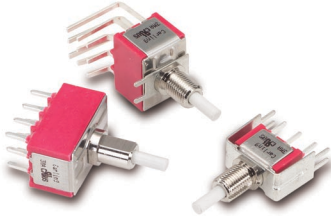




3MN-Series
Snap-Action Miniature
Pushbutton Switch



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

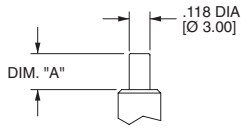
To order caps in bulk, specify the Series, followed by the cap. Ex.) 3MN-C13



<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)								

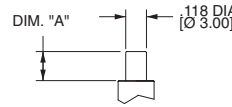
3MN-Series Dimensional Specifications: in. [mm]

PLUNGER



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

FOR B10,B11,B20,B21 ONLY

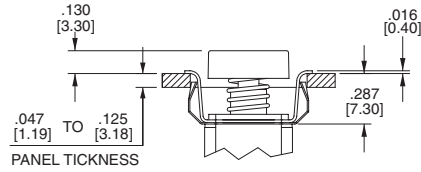
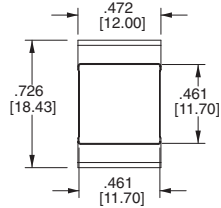


OPTION CODE	DIM. "A"
P0	.098 [2.50]
P1	.295 [7.50]
P2	.165 [4.20]

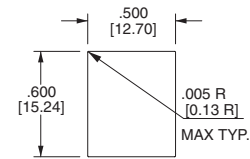
FOR B6 ONLY

ACTUATOR

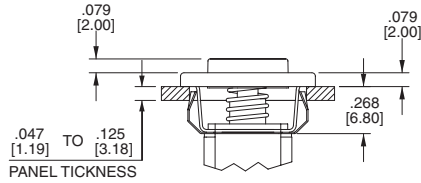
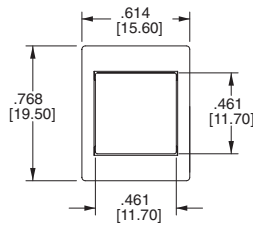
AP1



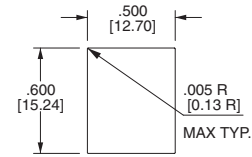
PANEL MOUNTING



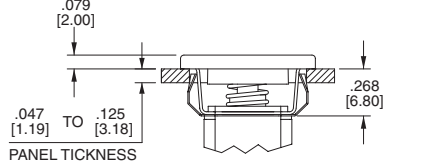
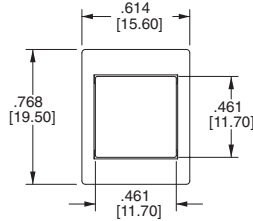
AP2



PANEL MOUNTING

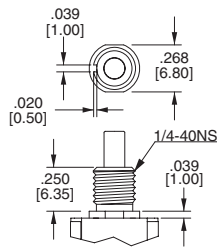


AP3

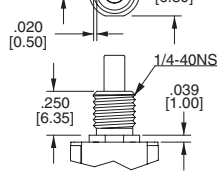


BUSHING

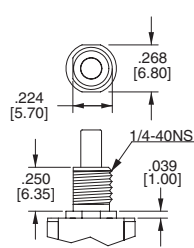
B10
STANDARD KEYWAY
THREADED SHOWN



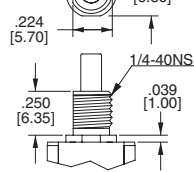
B20
STANDARD KEYWAY
NON-THREADED



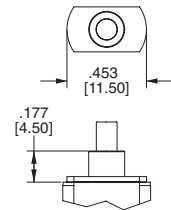
B11
THREADED SHOWN
WITH FLAT



B21
NON-THREADED
WITH FLAT

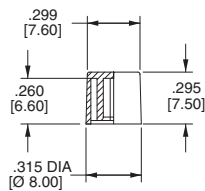


B6
NON-THREADED
(FOR TERMINATION
OPTIONS VS6-VS9 ONLY)

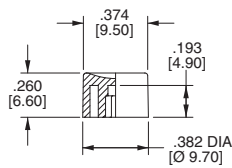


CAP

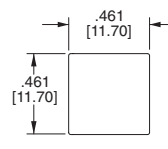
C1



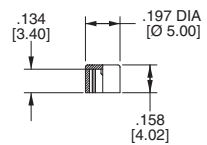
C2



C3



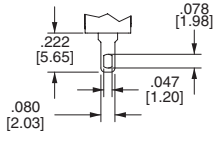
C4



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

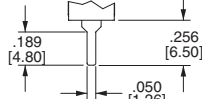
TERMINATION

M1



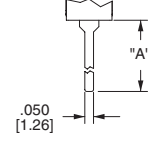
THK .030 [0.75]

M2



THK .030 [0.75]

M5

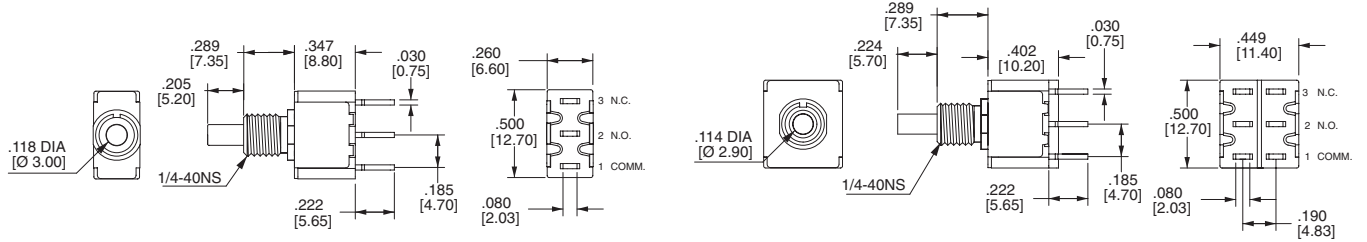


THK .030 [0.75]

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

SINGLE POLE

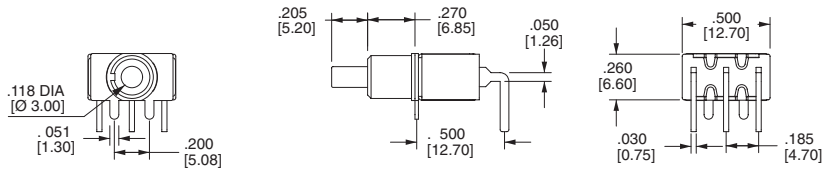
DOUBLE POLE



M6

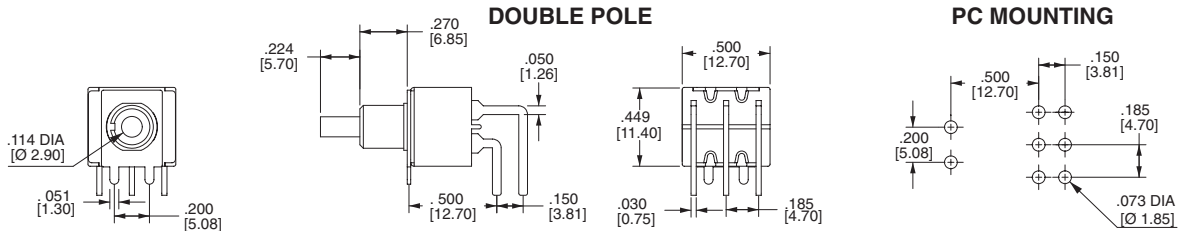
SINGLE POLE

PC MOUNTING



DOUBLE POLE

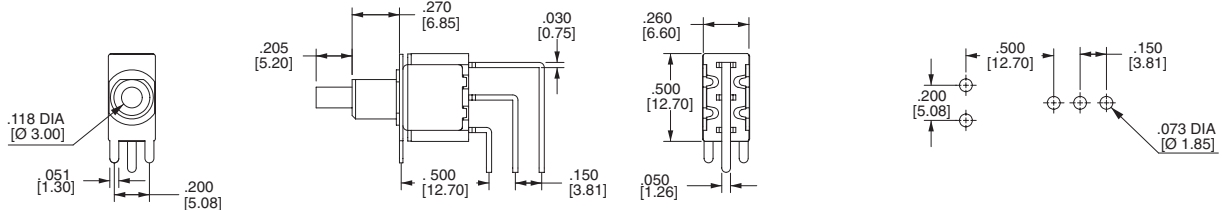
PC MOUNTING



M7

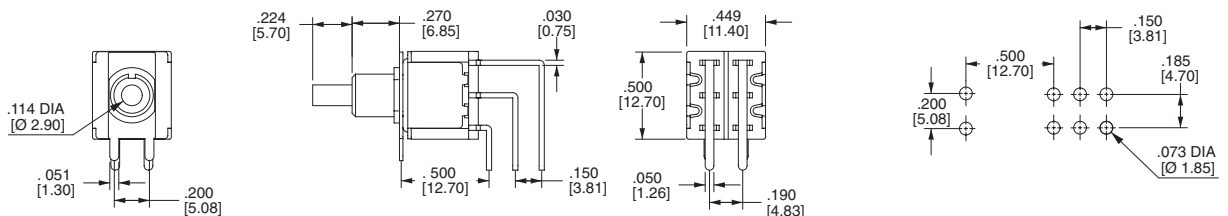
SINGLE POLE

PC MOUNTING



DOUBLE POLE

PC MOUNTING

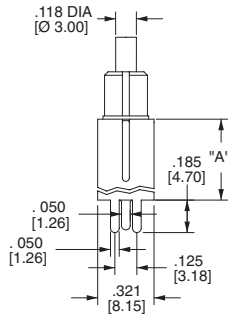


3MN-Series Dimensional Specifications: in. [mm]

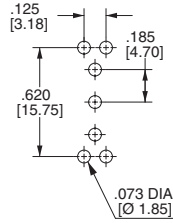
TERMINATION

SINGLE POLE

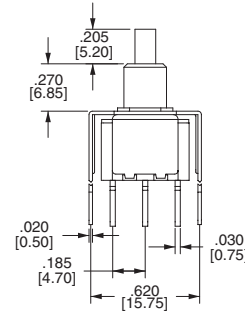
OPTION CODE	DIM. "A"
VS2	.460 [11.68]
VS3	.630 [16.00]
VS7	[16.00]



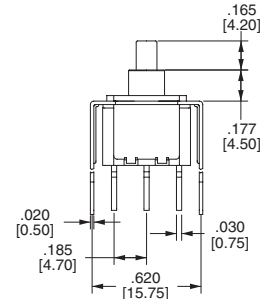
PC MOUNTING



VS2-VS3

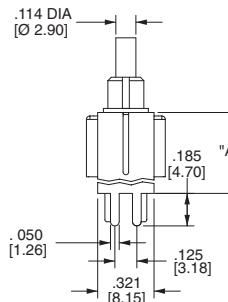


VS6-VS7 (For B6 Bushing Only)

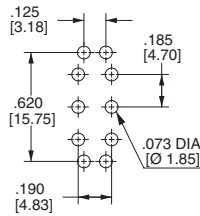


DOUBLE POLE

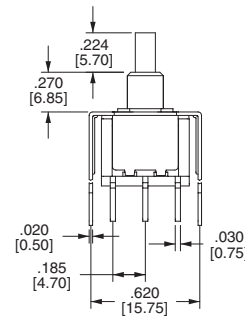
OPTION CODE	DIM. "A"
VS2	.460 [11.68]
VS3	.630 [16.00]
VS7	[16.00]



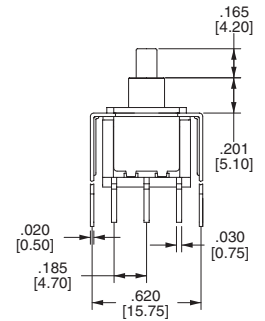
PC MOUNTING



VS2-VS3

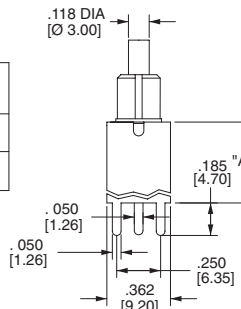


VS6-VS7 (For B6 Bushing Only)

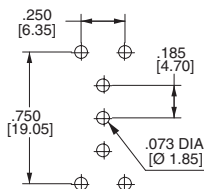


SINGLE POLE

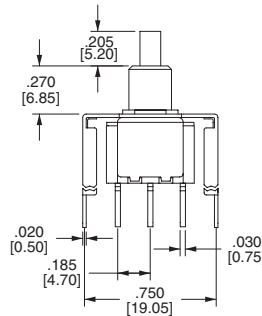
OPTION CODE	DIM. "A"
VS4	.460 [11.68]
VS5	.630 [16.00]
VS9	[16.00]



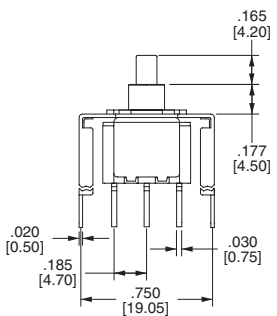
PC MOUNTING



VS4-VS5

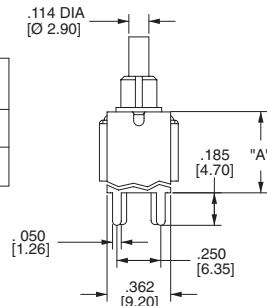


VS8-VS9 (For B6 Bushing Only)

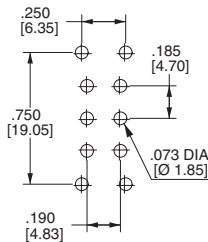


DOUBLE POLE

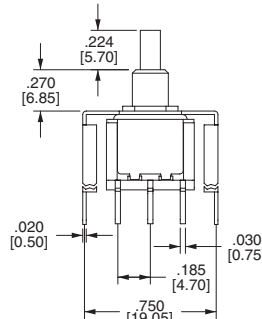
OPTION CODE	DIM. "A"
VS4	.460 [11.68]
VS5	.630 [16.00]
VS9	[16.00]



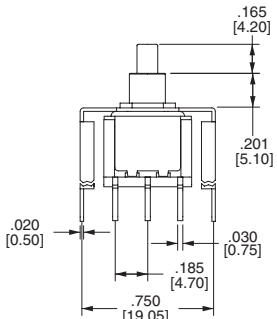
PC MOUNTING



VS4-VS5



VS8-VS9 (For B6 Bushing Only)

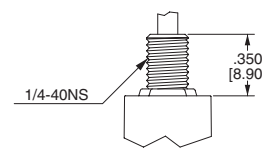
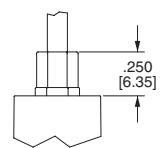


3MS-Series Dimensional Specifications: in. [mm]

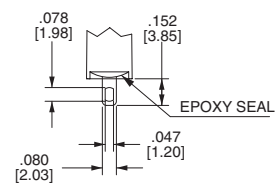
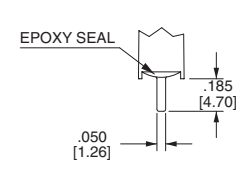
PLUNGER

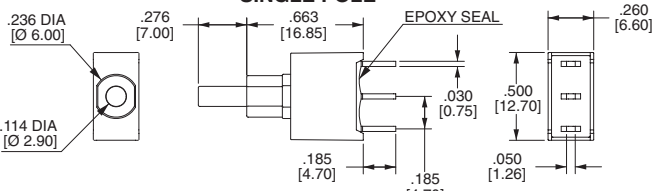
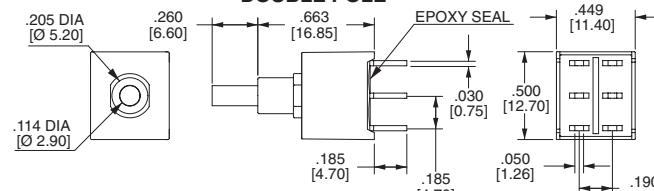
 <p>DIM. "A"</p> <p>.114 DIA [Ø 2.90]</p> <table border="1"> <thead> <tr> <th>OPTION CODE</th> <th>DIM. "A"</th> </tr> </thead> <tbody> <tr> <td>P1</td> <td>.173 [4.40]</td> </tr> <tr> <td>P2</td> <td>.220 [5.60]</td> </tr> <tr> <td>P3</td> <td>.087 [2.20]</td> </tr> </tbody> </table> <p>FOR B1 BUSHING</p>	OPTION CODE	DIM. "A"	P1	.173 [4.40]	P2	.220 [5.60]	P3	.087 [2.20]	 <p>DIM. "A"</p> <p>.114 DIA [Ø 2.90]</p> <table border="1"> <thead> <tr> <th>OPTION CODE</th> <th>DIM. "A"</th> </tr> </thead> <tbody> <tr> <td>P1</td> <td>.276 [7.00]</td> </tr> <tr> <td>P2</td> <td>.327 [8.30]</td> </tr> <tr> <td>P3</td> <td>.193 [4.90]</td> </tr> </tbody> </table> <p>FOR B4 BUSHING</p>	OPTION CODE	DIM. "A"	P1	.276 [7.00]	P2	.327 [8.30]	P3	.193 [4.90]
OPTION CODE	DIM. "A"																
P1	.173 [4.40]																
P2	.220 [5.60]																
P3	.087 [2.20]																
OPTION CODE	DIM. "A"																
P1	.276 [7.00]																
P2	.327 [8.30]																
P3	.193 [4.90]																

BUSHING

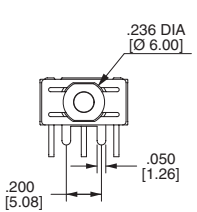
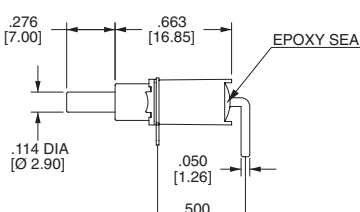
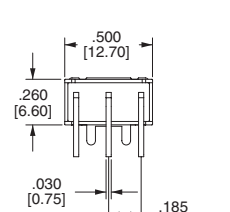
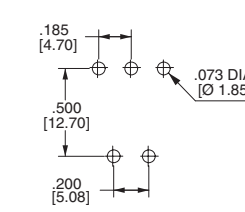
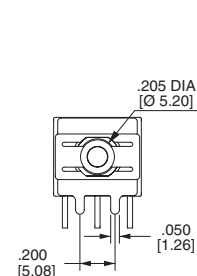
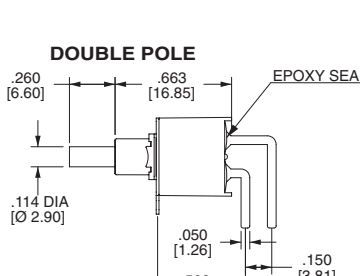
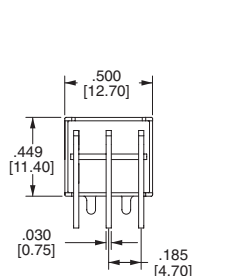
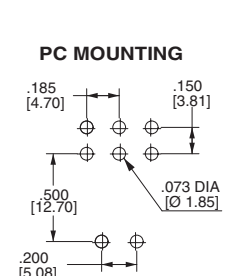
<p>B1</p>  <p>1/4-40NS</p> <p>.350 [8.90]</p>	<p>B4</p>  <p>.250 [6.35]</p>
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TERMINATION

<p>M1</p>  <p>.078 [1.98]</p> <p>.152 [3.85]</p> <p>EPOXY SEAL</p> <p>.080 [2.03]</p> <p>.047 [1.20]</p> <p>THK .030 [0.75]</p>	<p>M2</p>  <p>EPOXY SEAL</p> <p>.185 [4.70]</p> <p>.050 [1.26]</p> <p>THK .030 [0.75]</p>
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<p>SINGLE POLE</p>  <p>.236 DIA [Ø 6.00]</p> <p>.276 [7.00]</p> <p>.663 [16.85]</p> <p>EPOXY SEAL</p> <p>.260 [6.60]</p> <p>.030 [0.75]</p> <p>.500 [12.70]</p> <p>.185 [4.70]</p> <p>.185 [4.70]</p> <p>.050 [1.26]</p>	<p>DOUBLE POLE</p>  <p>.205 DIA [Ø 5.20]</p> <p>.260 [6.60]</p> <p>.663 [16.85]</p> <p>EPOXY SEAL</p> <p>.449 [11.40]</p> <p>.030 [0.75]</p> <p>.500 [12.70]</p> <p>.185 [4.70]</p> <p>.185 [4.70]</p> <p>.050 [1.26]</p> <p>.190 [4.83]</p>
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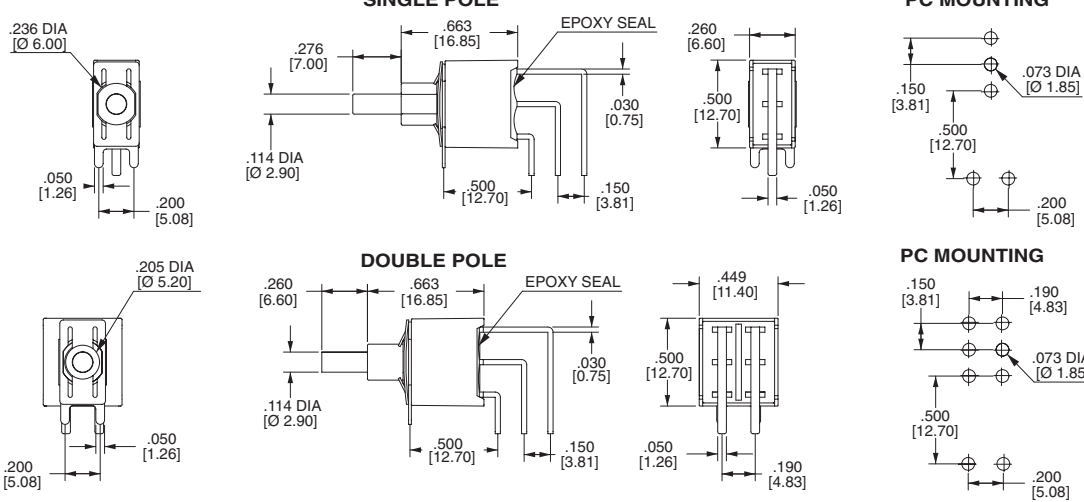
M6

 <p>.236 DIA [Ø 6.00]</p> <p>.050 [1.26]</p> <p>.200 [5.08]</p>	<p>SINGLE POLE</p>  <p>.276 [7.00]</p> <p>.663 [16.85]</p> <p>EPOXY SEAL</p> <p>.114 DIA [Ø 2.90]</p> <p>.050 [1.26]</p> <p>.500 [12.70]</p>	 <p>.500 [12.70]</p> <p>.260 [6.60]</p> <p>.030 [0.75]</p> <p>.185 [4.70]</p>	<p>PC MOUNTING</p>  <p>.185 [4.70]</p> <p>.500 [12.70]</p> <p>.200 [5.08]</p> <p>.073 DIA [Ø 1.85]</p>
 <p>.205 DIA [Ø 5.20]</p> <p>.050 [1.26]</p> <p>.200 [5.08]</p>	<p>DOUBLE POLE</p>  <p>.260 [6.60]</p> <p>.663 [16.85]</p> <p>EPOXY SEAL</p> <p>.114 DIA [Ø 2.90]</p> <p>.050 [1.26]</p> <p>.500 [12.70]</p> <p>.150 [3.81]</p>	 <p>.500 [12.70]</p> <p>.449 [11.40]</p> <p>.030 [0.75]</p> <p>.185 [4.70]</p>	<p>PC MOUNTING</p>  <p>.185 [4.70]</p> <p>.150 [3.81]</p> <p>.500 [12.70]</p> <p>.200 [5.08]</p> <p>.073 DIA [Ø 1.85]</p>

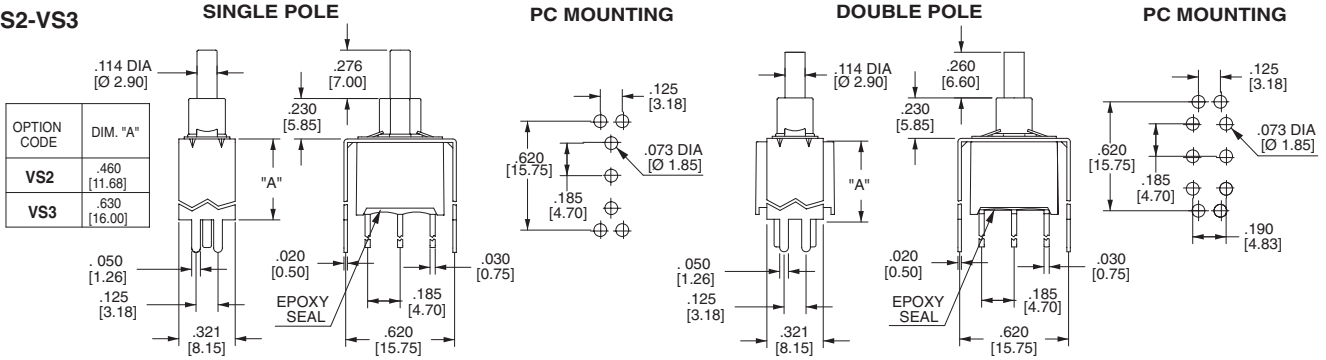
3MS-Series Dimensional Specifications: in. [mm]

TERMINATION

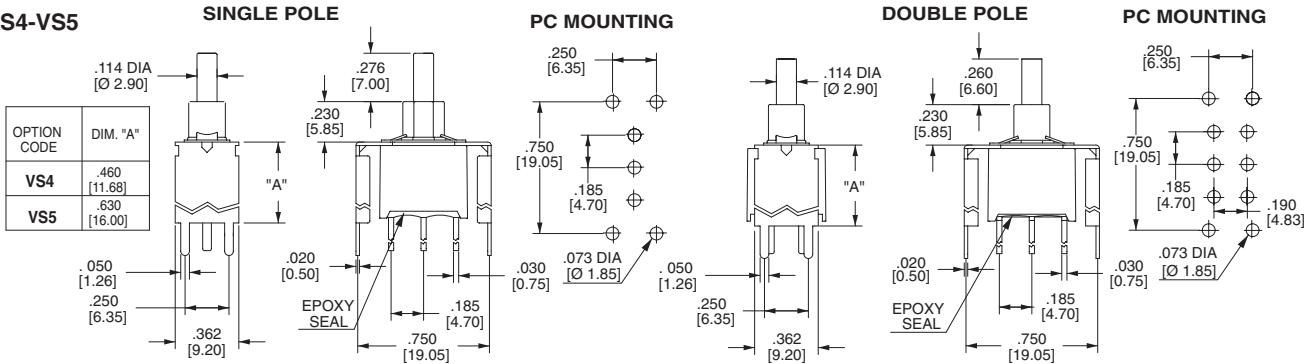
M7



VS2-VS3



VS4-VS5

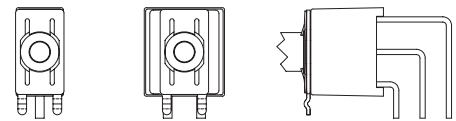


SNAP-IN TERMINATION OPTIONS

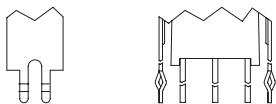
M61



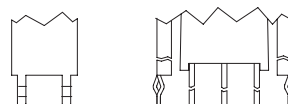
M71



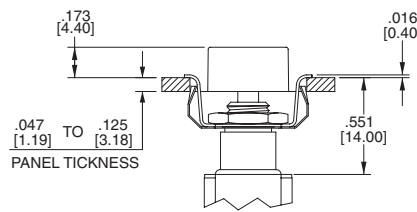
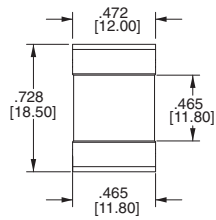
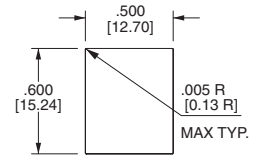
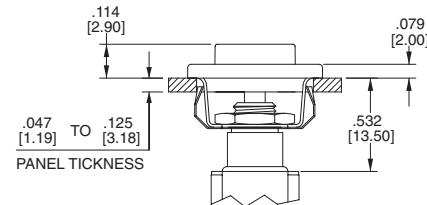
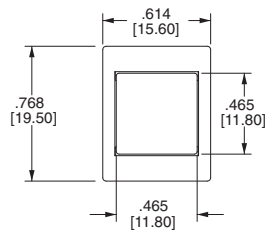
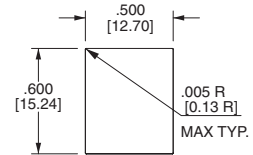
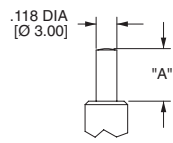
VS21, VS31



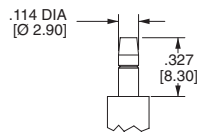
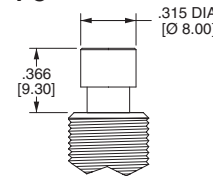
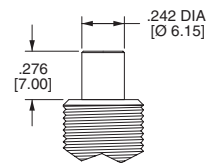
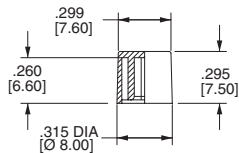
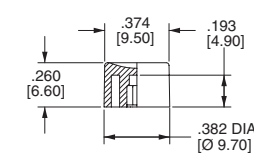
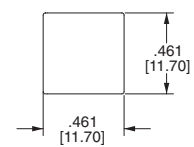
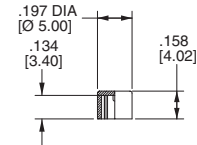
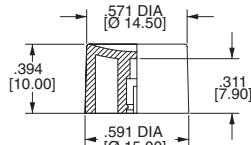
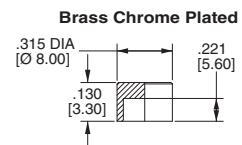
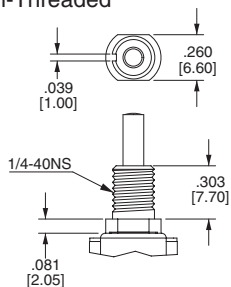
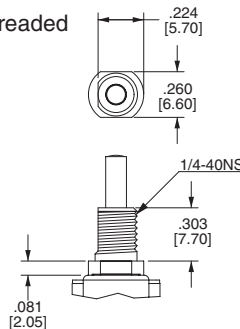
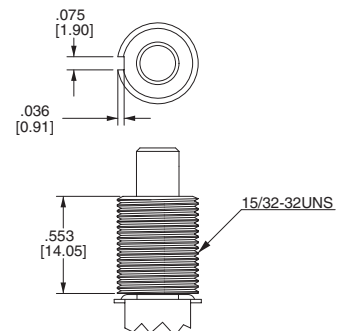
VS41, VS51



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


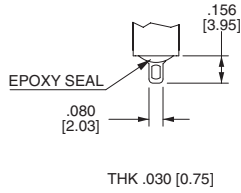
OPTION CODE	DIM. "A"
PA	.299 [7.60]
PI	.244 [6.20]

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


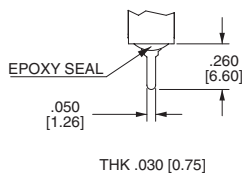
3MA-Series Dimensional Specifications: in. [mm]

TERMINATION

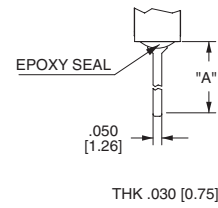
M1



M2



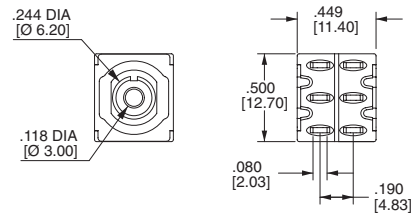
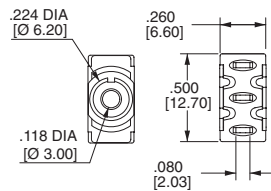
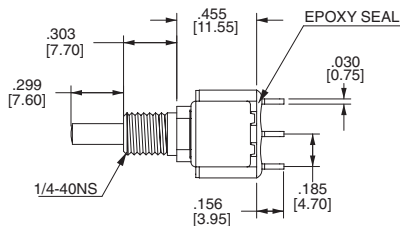
M5



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

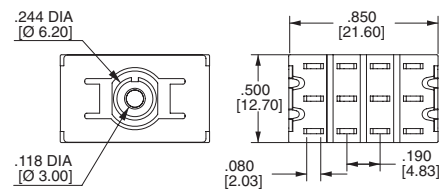
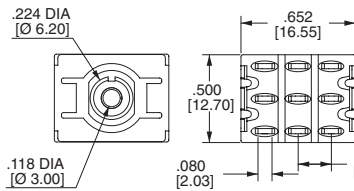
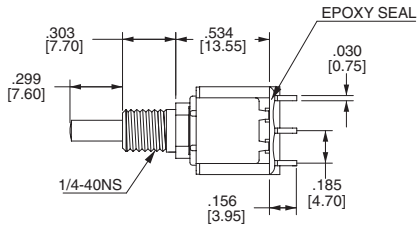
SINGLE POLE

DOUBLE POLE



3 POLE

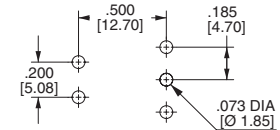
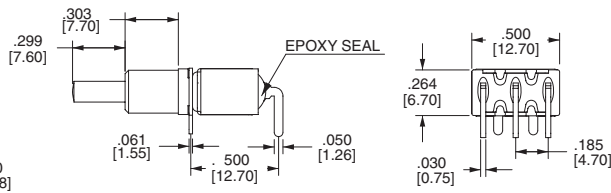
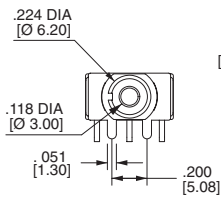
4 POLE



M6

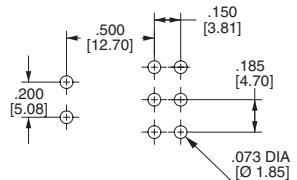
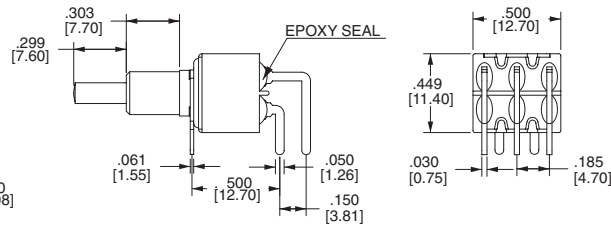
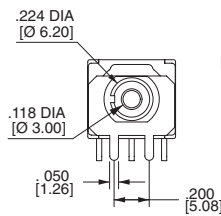
SINGLE POLE

PC MOUNTING



DOUBLE POLE

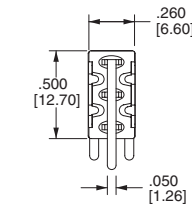
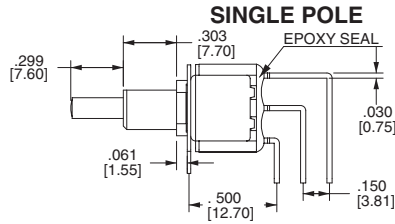
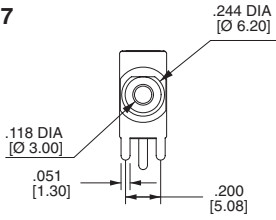
PC MOUNTING



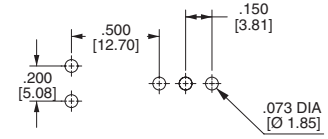
3MA-Series Dimensional Specifications: in. [mm]

TERMINATION

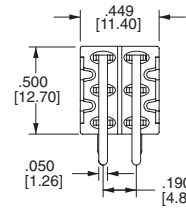
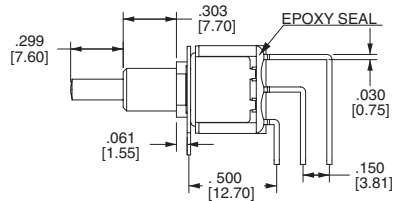
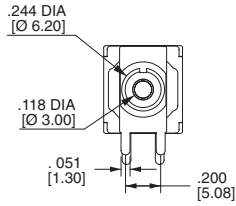
M7



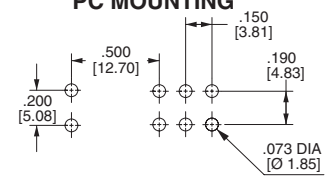
PC MOUNTING



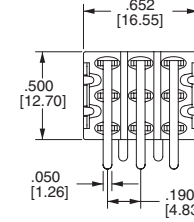
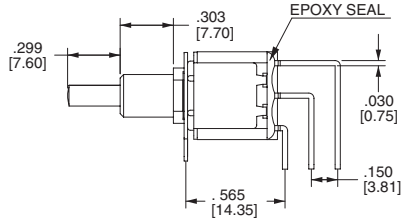
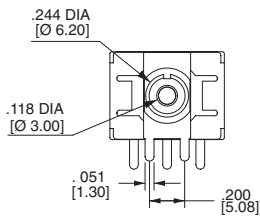
DOUBLE POLE



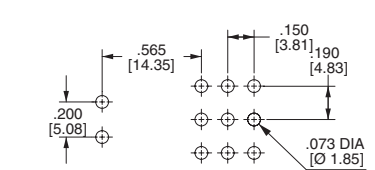
PC MOUNTING



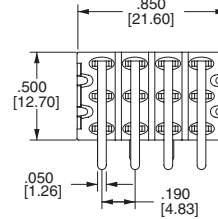
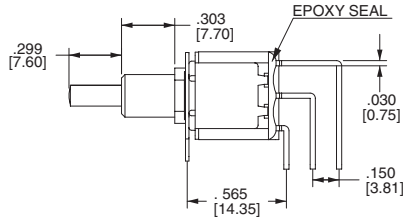
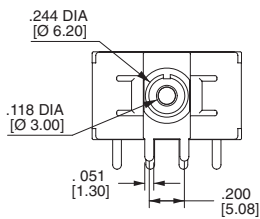
THREE POLE



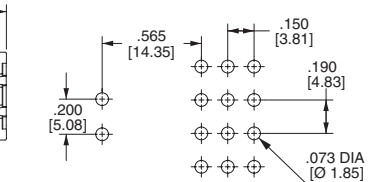
PC MOUNTING



FOUR POLE

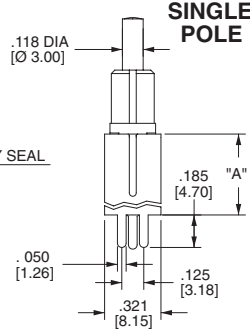
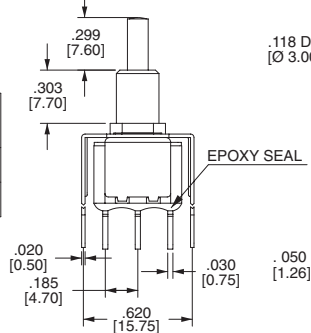


PC MOUNTING

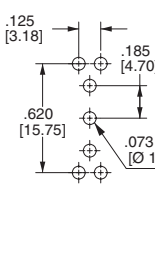


VS2-VS3

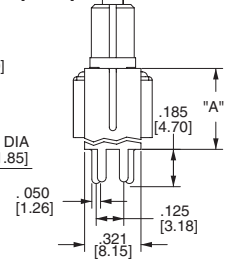
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VS2	.460 [11.68]
VS3	.630 [16.00]



SINGLE POLE PC MOUNTING

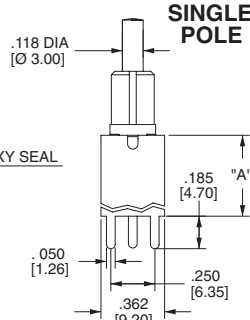
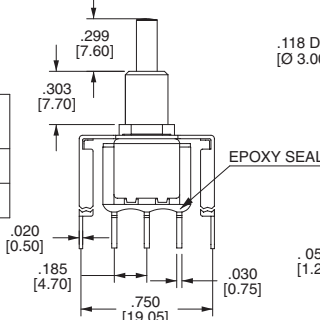


DOUBLE POLE PC MOUNTING

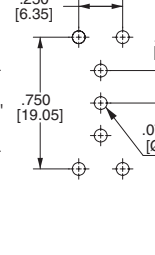


VS4-VS5

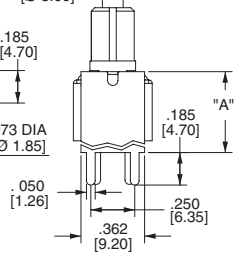
OPTION CODE	DIM. "A"
VS4	.460 [11.68]
VS5	.630 [16.00]



SINGLE POLE PC MOUNTING



DOUBLE POLE PC MOUNTING



Компания «Океан Электроники» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Поставка оригинальных импортных электронных компонентов напрямую с производств Америки, Европы и Азии, а так же с крупнейших складов мира;
- Широкая линейка поставок активных и пассивных импортных электронных компонентов (более 30 млн. наименований);
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Помощь Конструкторского Отдела и консультации квалифицированных инженеров;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Поставка электронных компонентов под контролем ВП;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- При необходимости вся продукция военного и аэрокосмического назначения проходит испытания и сертификацию в лаборатории (по согласованию с заказчиком);
- Поставка специализированных компонентов военного и аэрокосмического уровня качества (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Actel, Aeroflex, Peregrine, VPT, Syfer, Eurofarad, Texas Instruments, MS Kennedy, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Компания «Океан Электроники» является официальным дистрибьютором и эксклюзивным представителем в России одного из крупнейших производителей разъемов военного и аэрокосмического назначения «**JONHON**», а так же официальным дистрибьютором и эксклюзивным представителем в России производителя высокотехнологичных и надежных решений для передачи СВЧ сигналов «**FORSTAR**».



JONHON

«**JONHON**» (основан в 1970 г.)

Разъемы специального, военного и аэрокосмического назначения:

(Применяются в военной, авиационной, аэрокосмической, морской, железнодорожной, горно- и нефтедобывающей отраслях промышленности)

«**FORSTAR**» (основан в 1998 г.)

ВЧ соединители, коаксиальные кабели, кабельные сборки и микроволновые компоненты:

(Применяются в телекоммуникациях гражданского и специального назначения, в средствах связи, РЛС, а так же военной, авиационной и аэрокосмической отраслях промышленности).



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Факс: 8 (812) 320-03-32

Электронная почта: ocean@oceanchips.ru

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