

1M1-Series
Miniature Rocker &
Paddle Switch



1MS-Series
Sealed Miniature
Rocker & Paddle
Switch

Specifications

Contact Rating	refer to ordering scheme.
Electrical Life	1M1-Series: 50,000 make & break cycles @ full load 1MS-Series: 30,000 make & break cycles @ full load
Contact Resistance.	10 mΩ max. initial @ 2-4 VDC 100mA for both silver & gold plated contacts.
Insulation Resistance	1000 MΩ min.
Dielectric Strength	1500 Volts RMS @ sea level
Operating Temperature . . .	-30°C to +85°C
Index of Protection	1MS-Series: IP67
Solder Heat Resistance. . .	MIL-STD-202, Method 210
Actuator Travel	25°

Materials

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

1M1-Series Ordering Scheme



1 SERIES
1M1 Miniature Rocker Switch

2 POLES
SP single pole - uses terminals 1, 2 & 3.
DP double pole uses terminals 1,2, 3, 4, 5 & 6.
3P double pole uses terminals 1,2, 3, 4, 5, 6, 7, 8 & 9.
4P double pole uses terminals 1,2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12.

3 CIRCUIT
 () - momentary

Switching Position: 2-3, 5-6, 8-9, 11-12			
	<i>OPEN</i>		<i>2-1, 5-4, 8-7, 11-10</i>
1	ON	NONE	ON
2	ON	NONE	(ON)
3	ON	OFF	ON
4	(ON)	OFF	(ON)
5	ON	OFF	(ON)

4 ACTUATOR STYLE

R1 Small rocker	R5 Large rocker
R2 Small paddle	R6 Rocker & frame
R3 Medium rocker	R7 Paddle & frame
R4 Large paddle	R8 Rocker w/out frame
	R9 Paddle w/out frame

5 ACTUATOR COLOR & 6 FRAME COLOR^{1,2}

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

1 Black is standard. Other colors available, consult factory for details.
 2 Selection 6 is blank if actuator style R8 or R9 (no frame)

7 TERMINATION

M1 Solder Lug	VS4 PC Mount, U bracket, .460 high
M2 PCB	VS5 PC Mount, U bracket, .630 high
M3 Quick Connect	M61 Snap-In, U bracket, 90° horizontal
M5-1 Wire Wrap .750 [19.05]	M71 Snap-In, U bracket, 90° vertical
M5-2 Wire Wrap .964 [24.48]	VS21 Snap-In, U bracket, .620 mounting x .460 high
M5-3 Wire Wrap .425 [10.80]	VS31 Snap-In, U bracket, .620 mounting x .630 high
M5-4 Wire Wrap 1.062 [26.97]	VS41 Snap-In, U bracket .620 mounting x .630 high
M6 PC Mount, 90° horizontal	VS51 Snap-In, U bracket
M7 PC Mount, 90° vertical	
VS2 PC Mount, U bracket, .620 mounting x .460 high	
VS3 PC Mount, U bracket, .620 mounting x .630 high	

8 CONTACT

G	<i>Material</i>	<i>Terminal Plating</i>	<i>Rating</i>	<i>Approvals</i>
G	silver ¹	gold over silver ²	5A@125VAC or 28VDC, 2A @ 250VAC	UL CSA
K	gold ²	tin-lead ⁴	0.4VA max. @20V max (AC/DC)	-
P	silver ¹	tin-lead ⁴	5A@125VAC or 28VDC, 2A @ 250VAC	UL CSA
Q	silver ¹	silver ¹	5A@125VAC or 28VDC, 2A @ 250VAC	UL CSA
R	gold ²	gold ²	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
 4 Outer terminals: copper alloy with tin-lead over nickel plate

9 EPOXY SEAL
E epoxy seal

1MS-Series Ordering Scheme



1 SERIES
1MS Sealed Miniature Rocker Switch

2 POLES
SP single pole - uses terminals 1, 2 & 3.
DP double pole uses terminals 1,2, 3, 4, 5 & 6.
3P double pole uses terminals 1,2, 3, 4, 5, 6, 7, 8 & 9.

3 CIRCUIT
 () - momentary

Switching Position: 2-3, 5-6, 8-9			
	<i>OPEN</i>		<i>2-1, 5-4, 8-7</i>
1	ON	NONE	ON
2	ON	NONE	(ON)
3	ON	OFF	ON
4	(ON)	OFF	(ON)
5	ON	OFF	(ON)

4 ACTUATOR STYLE

R1 Small rocker	R5 Large rocker
R2 Small paddle	R6 Rocker & frame
R3 Medium rocker	R7 Paddle & frame
R4 Large paddle	R8 Rocker w/out frame
	R9 Paddle w/out frame

5 TERMINATION

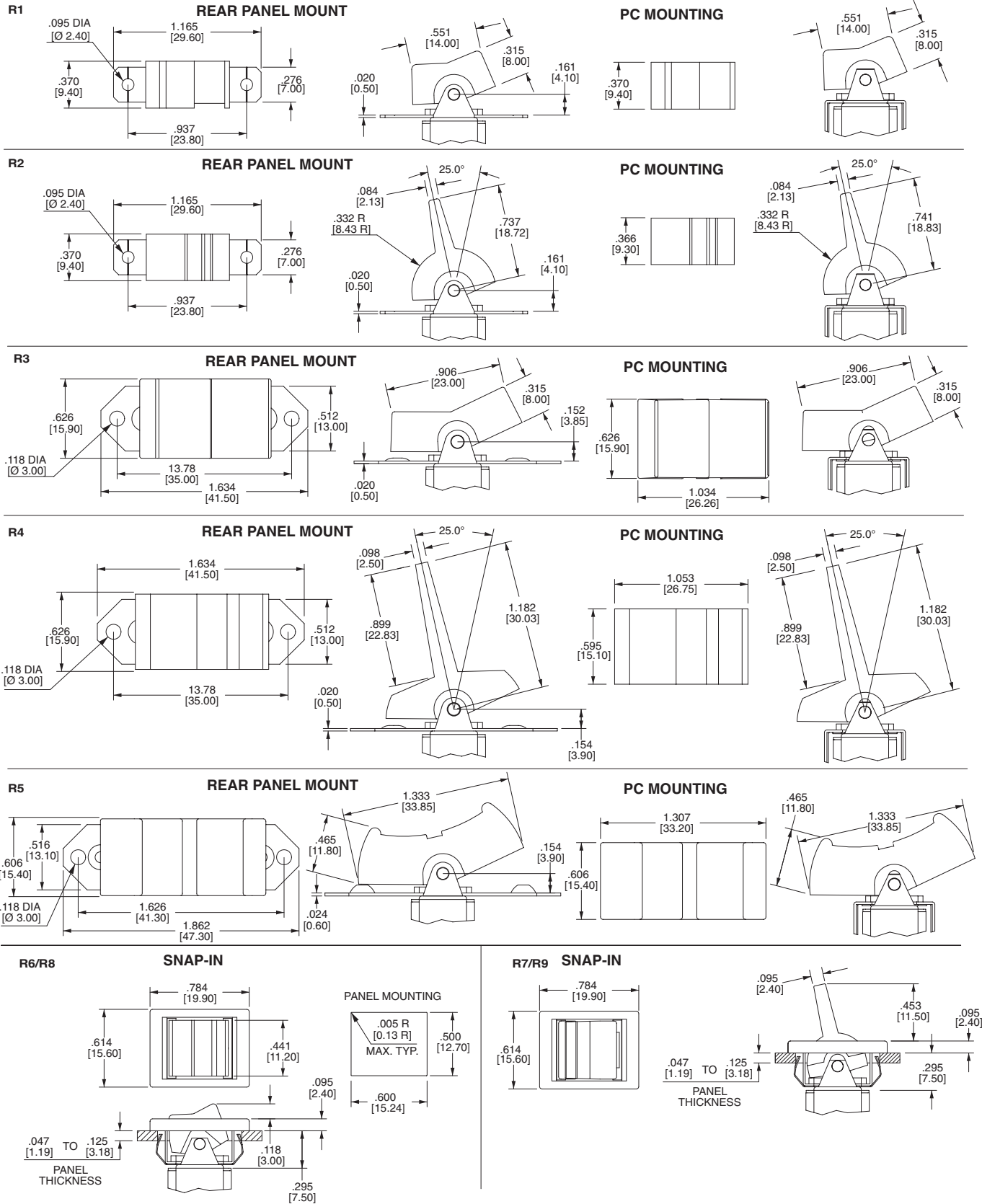
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6 CONTACT

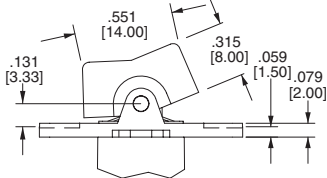
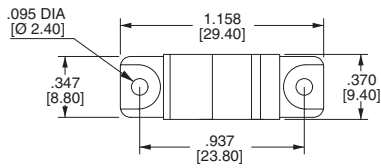
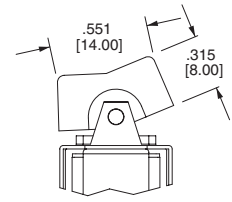
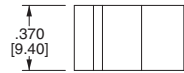
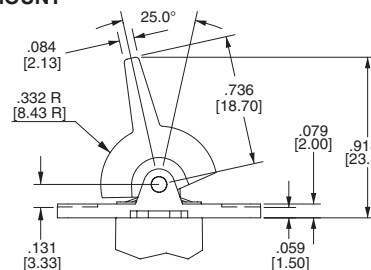
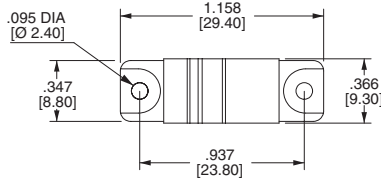
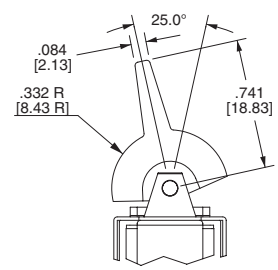
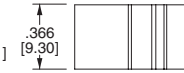
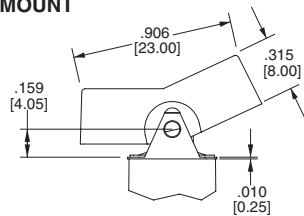
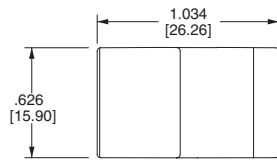
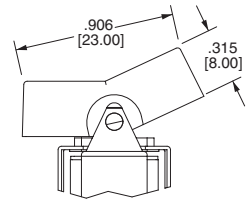
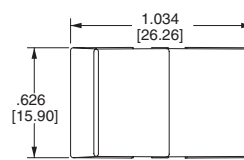
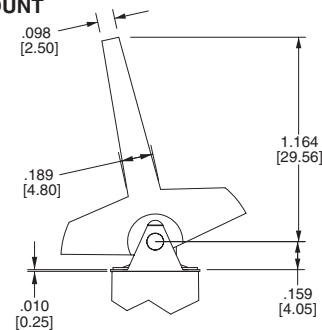
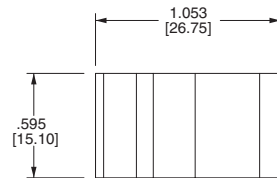
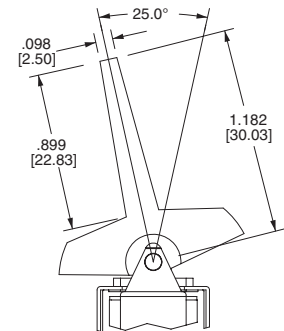
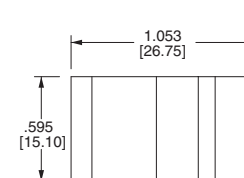
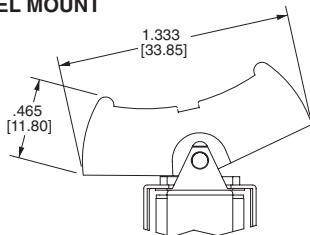
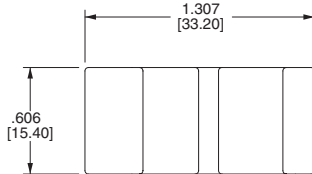
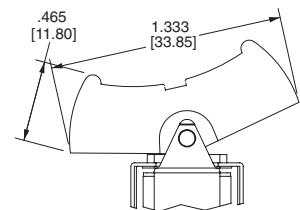
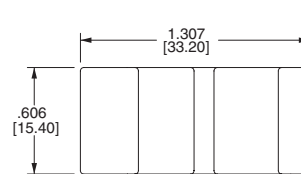
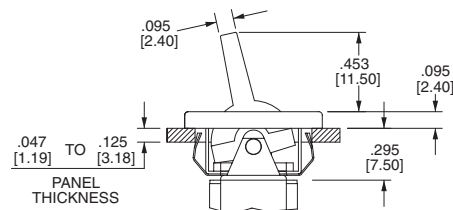
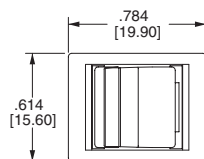
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7 EPOXY SEAL
E epoxy seal

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


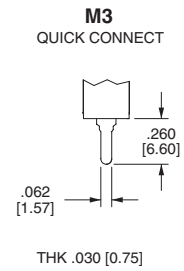
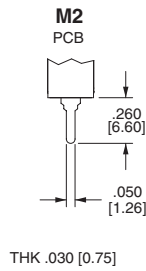
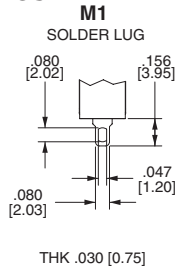
R8 and R9 are without frame. Actuators are as shown.

1MS-Series Dimensional Specifications: in.[mm]
ACTUATOR
R1 REAR PANEL MOUNT

PC MOUNTING

R2 REAR PANEL MOUNT

PC MOUNTING

R3 REAR PANEL MOUNT

PC MOUNTING

R4 REAR PANEL MOUNT

PC MOUNTING

R5 REAR PANEL MOUNT

PC MOUNTING

R7 SNAP-IN


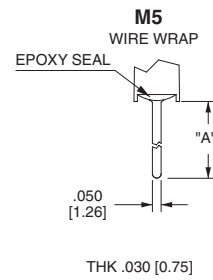
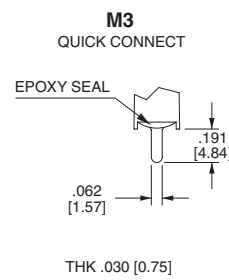
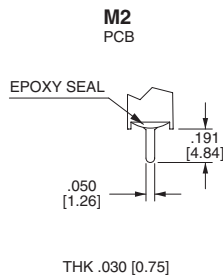
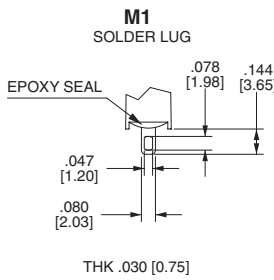
1M-Series Dimensional Specifications: in.[mm]

TERMINATION

1M1-Series



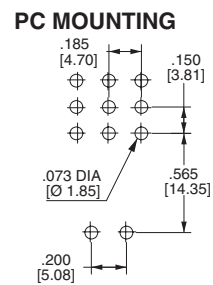
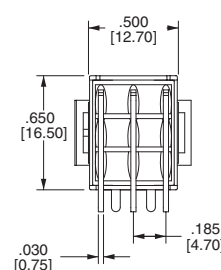
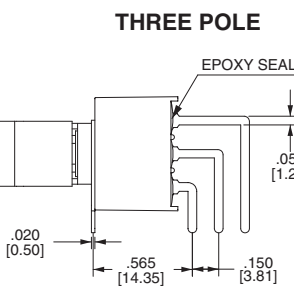
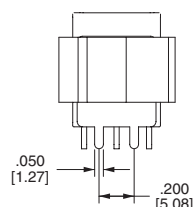
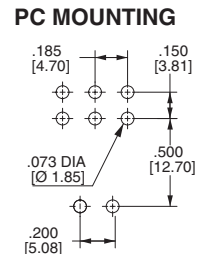
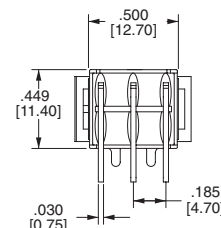
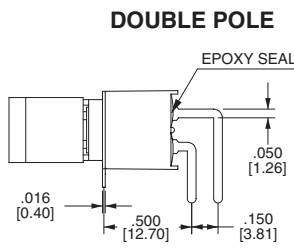
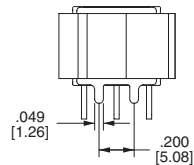
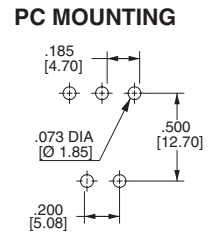
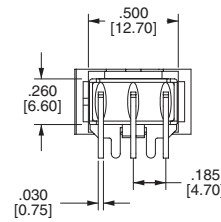
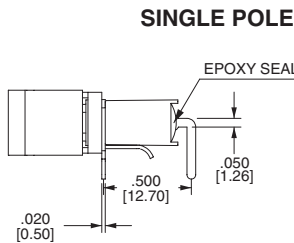
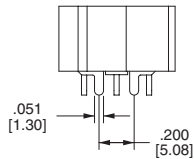
1MS-Series



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]

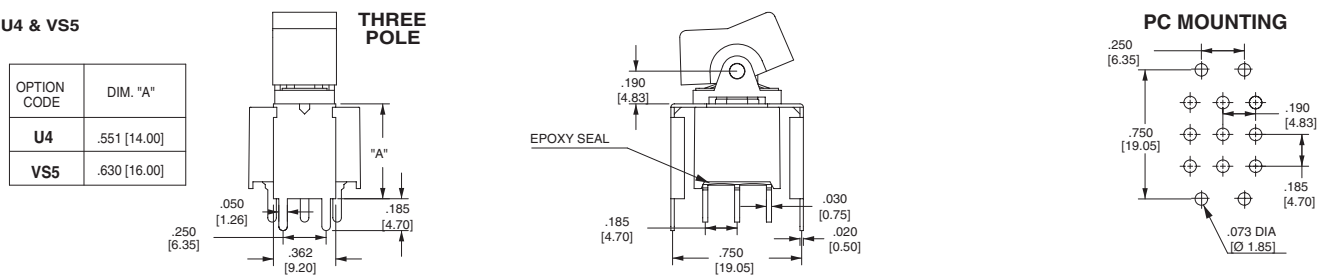
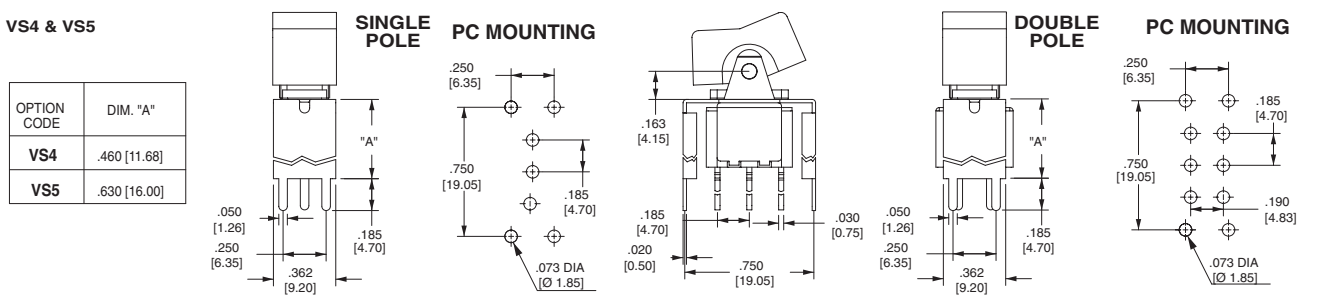
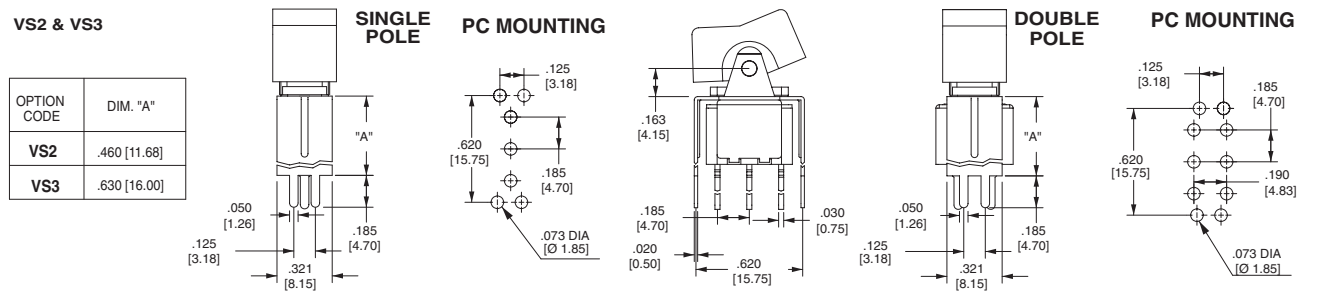
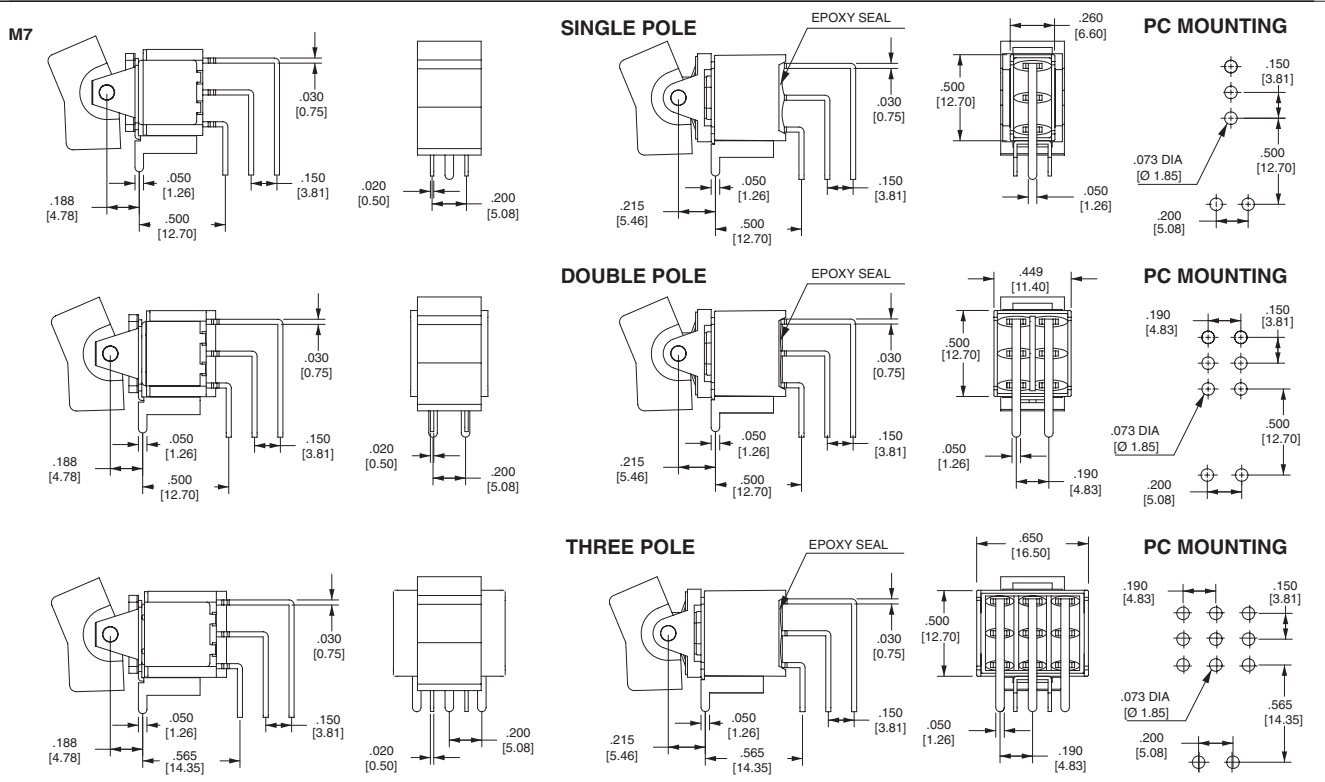
1M-Series

M6



1M-Series Dimensional Specifications: in.[mm]

TERMINATION



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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