



# 1S-Series

Miniature Rockers & Paddles

**PRODUCT WEBPAGE** 

request sample, configure part





The 1S family of sub-miniature rocker switches is composed of three switch series; the ISI-Series subminiature rocker switch, the ISS-Series sealed subminiature rocker switch, and the ISM-Series surface mount sealed sub-miniature rocker switch. All of these series offer a variety of ratings, circuits, contact materials, terminal platings, and actuator colors.

Poles

Amps

125, 250

## **Typical Applications**

- Instrumentation Test Equipment
- Telecommunications
- Networking

- · Handheld Appliances
- · Medical Equipment

## **Tech Specs**



**1SS-Series** Sealed Sub-Miniature **Rocker Switch** 



**1S1-Series** Sub-Miniature Rocker Switch



**1SM-Series Sealed Surface Mount** Sub-Miniature **Rocker Switch** 

### **Electrical**

Contact Rating	refer to ordering scheme
Electrical Life	1S1-Series: 30,000 make & break cycles @ full load 1SS & 1SM-Series: 50,000 make &break cycles @ full load
Contact Resistance	20 mΩ max. initial @ 2-4 VDC 100mA for both silver & gold platedcontacts
Insulation Resistance	1000 MΩ min.
Dielectric Strength	1500 Volts RMS @ sea level

### **Physical**

Operating Temperature	-30°C to +85°C
Index of Protection	1SS & 1SM-Series: IP67
Solder Heat Resistance	MIL-STD-202, Method 210
Actuator Travel	25°

### **Material**

Case	all UL94 V-0 ISI-Series: Dially phthalate (DAP) ISS-Series: Glass filled nylon 6/6,flame retardant, heat stabilized ISM-Series: Glass filled nylon 4/6,flame retardant, heat stabilized
Rocker	ISI-Series: Nylon (UL 94V-0) ISS & ISM-Series: Nylon, black standard, internal o-ring sealed
Bushing	ISI-Series: Brass, nickel plated ISS-Series: Glass filled nylon 6/6,flame retardant, heat stabilized (UL 94V-0) ISM-Series: Glass filled nylon 4/6,flame retardant, heat stabilized (UL 94V-0)
Housing	1S1-Series: Stainless Steel
Switch Support	1S1 & 1SM-Series: Brass, tin plated
Terminal Seal	Ероху

## **Ordering Scheme**

Part Number 2 Selection

Sealed Sub-Miniature Rocker Switch

### 2. POLES

Single pole - uses terminals 1, 2 & 3 Double pole - uses terminals 1, 2, 3, 4, 5 & 6

### 3. CIRCUIT

( ) - momentary					
Position:	1 ′	2	3		
	2-3, 5-6	Connected Terminals	2-1, 5-4		
1	ON	NONE	ON		
2	ON	NONE	(ON)		
3	ON	OFF	ÒN		
4	(ON)	OFF	(ON)		
5	ÒNÍ	OFF	(ON)		

### 4. ACTUATOR STYLE

Small Rocker R2 Narrow Black Rocker

### 5. ACTUATOR COLOR

- White
- Black
- Red

Other colors available, consult factory

### 6. TERMINATION

0. IL	KIVIIIATION			
M1 M2	Solder Lug PCB	М61	Snap-In, U bracket, 90° horizontal	
М6	PC Mount, 90° horizontal	M71	Snap-In, U bracket,	
М7	PC Mount, 90° vertical		90° horizontal	
VS2	PC Mount, U bracket	VS21	Snap-In, U bracket	
See dimensional specifications.				

### 7. CONTACTS / TERMINALS

Contac	t Material	Terminal Plating	Rating	Approvals
G	silver <sup>1</sup>	gold over silver	3A 125VAC or 28VDC, 1.5A 250VAC	IP67
K P	gold <sup>2,5</sup> silver <sup>1,6</sup>	tin <sup>4</sup> tin <sup>4</sup>	0.4VA max 20V max (, 3A 125VAC or 28VDC, 1.5A 250VAC	AC/DC) IP67 IP67
R	gold <sup>2</sup>	gold <sup>2,3</sup>	0.4VA max 20V max (	(AC/DC) IP67

### 8. EPOXY SEAL

**Epoxy Seal** without Epoxy Seal

- Notes: Tin option not available with MI terminal.

  Movable contact and terminal platings: silver over copper alloy
  Movable contact platings: gold over nickel over copper alloy
  Terminal platings: gold over nickel over copper alloy
  Terminal platings: tin over copper alloy
  Terminal contact platings: gold over nickel alloy
  Terminal contact platings: gold over nickel alloy
  Terminal contact platings: silver over nickel alloy

⊠ Configure Complete Part Number >

Browse Standard Parts >

**Ordering Scheme** 

- R2 / 2 M6 Sample Part Number

Selection 1. SERIES

1S1 Sub-Miniature Rocker Switch

MSP Single pole - uses terminals 1, 2 & 3 MDP Double pole - uses terminals 1, 2, 3, 4, 5 & 6

### 3. CIRCUIT

( ) - momentary					
Position:	1 ′	2	3		
	2-3, 5-6	Connected Terminals	2-1, 5-4		
1	ON	NONE	ON		
2	ON	NONE	(ON)		
3	ON .	OFF	ON .		
4	(ON)	OFF	(ON)		
5	ON	OFF	(ON)		

### 4. ACTUATOR STYLE

Small Rocker

Narrow Black Rocker

Medium Rocker

### **5. ACTUATOR COLOR**

White

Black Red

Other colors available, consult factory.

### **6. TERMINATION**

М1 M2	Solder Lug PCB		Snap-In, U bracket, 90° horizontal	
М6	PC Mount, 90° horizontal		Snap-In, U bracket,	
М7	PC Mount, 90° vertical		90° horizontal	
VS2	PC Mount, U bracket	VS21	Snap-In, U bracket	
VS3	PC Mount, U bracket			
See dimensional specifications.				

### 7. CONTACTS / TERMINALS

Cor	ntact Material	Terminal Plating	Rating	Approvals
G	silver 1	gold over silver 1.5A 250VAC	3A 125VAC or 28VDC,	<b>71</b> , @
K P	gold <sup>2</sup> silver <sup>1</sup>	tin <sup>3</sup>	0.4VA max 20V max	(AC/DC) N/A
Р	silver <sup>1</sup>	tin <sup>3</sup> 1.5A 250VAC	3A 125VAC or 28VDC,	<b>71</b> , ®
Q	silver 1	silver <sup>1</sup> 1.5A 250VAC	3A 125VAC or 28VDC,	<b>71</b> , (()
R	gold <sup>2</sup>	gold <sup>2</sup>	0.4VA max 20V max	(AC/DC) N/A

### 8. EPOXY SEAL

**Epoxy Seal** without Epoxy Seal

- Notes:
  Tin option available with M1 termination.
  Movable contact and terminal platings: silver over copper alloy
  Movable contact and terminal platings: gold over nickel over copper alloy
  Terminal platings: tin over nickel over copper alloy

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## **Ordering Scheme**

Part Number

2

### 1. SERIES

Sealed Surface Mount Sub-Miniature Rocker Switch

WMSP Single pole - uses terminals 1, 2 & 3

### 3. CIRCUIT

( ) - momentary					
Position:	1 ′	2	3		
	2-3	Connected Terminals	2-1		
1	ON	NONE	ON		
2	ON	NONE	(ON)		
3	ON .	OFF	ÒN Í		
4	(ON)	OFF	(ON)		
5	ÒN	OFF	(ON)		

### 4. ACTUATOR STYLE

**R2** Narrow Black Rocker

### **5. TERMINATION**

Surface Mount, 90° flat - horizontal / side Surface Mount, 90° hat = Horizontal / Surface Mount, 90° horizontal / back Surface Mount, 90° vertical

See dimensional specifications.

### 6. CONTACTS / TERMINALS

С	ontact Material	Terminal Plating	Rating	Approvals
G	silver <sup>1</sup>	gold over silver	3A 125VAC or 28VDC,	IP67
			1.5	5A 250VAC
Κ	gold <sup>2,5</sup> silver <sup>1,6</sup>	tin <sup>4</sup> tin <sup>4</sup>	0.4VA max 20V max (A	c/pc) IP67
Ρ	silver <sup>1,6</sup>	tin <sup>4</sup>	3A 125VAC or 28VDC,	IP67
			1.5	5A 250VAC
Q	silver <sup>1</sup>	silver 1	3A 125VAC or 28VDC,	IP67
			1.5	5A 250VAC
R	gold <sup>2</sup>	gold <sup>3</sup>	0.4VA max 20V max (A	c/pc) IP67

### 7. EPOXY SEAL

**Epoxy Seal** without Epoxy Seal

### 8. PACKAGING

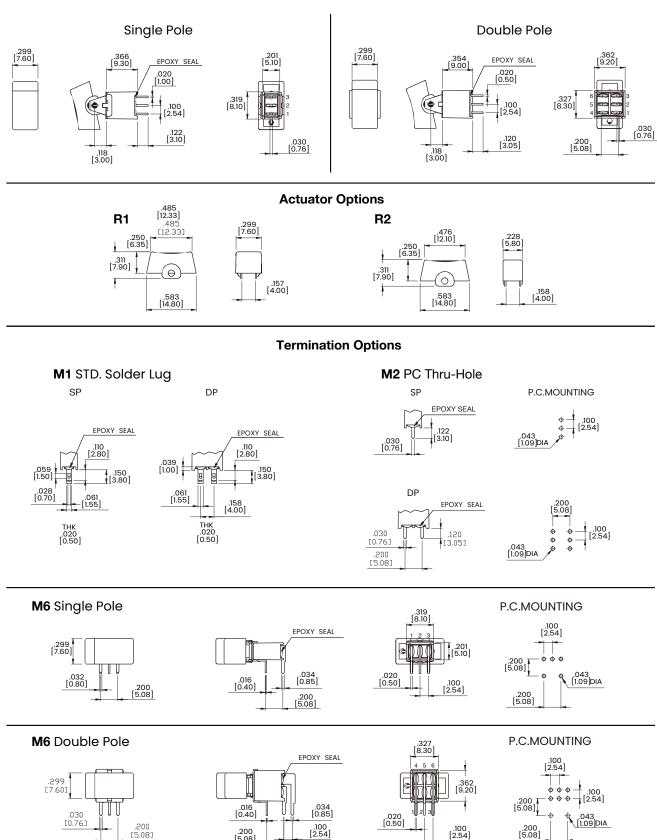
T/R tape reel - 500 pieces per reel

Switches are bulk packed, unless T/R is specified at the end of the part number.

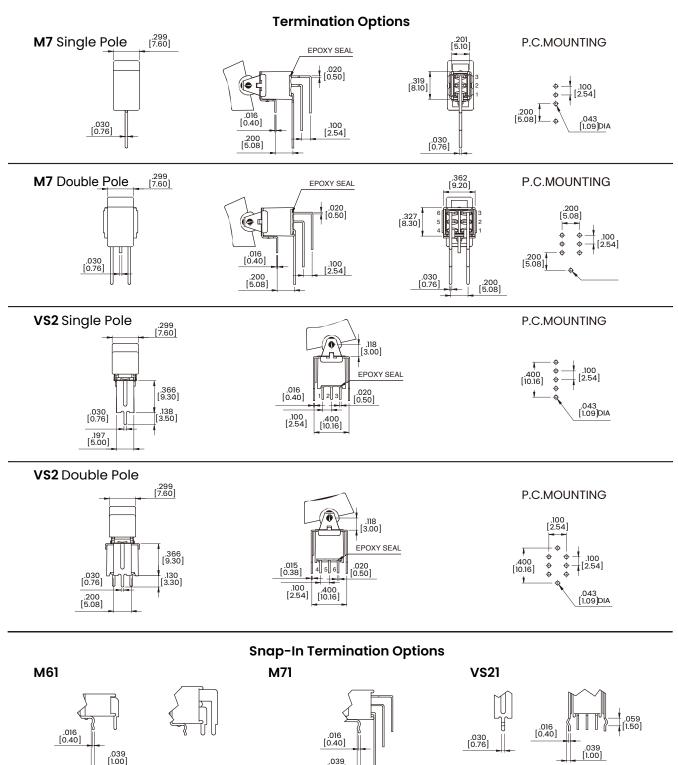
- Notes:
  Tin option not available with MI termination.
  Movable contact and terminal platings: silver over copper alloy
  Movable contact platings: gold over nickel over copper alloy
  Terminal platings: gold over nickel over copper alloy
  Terminal platings: tin over copper alloy
  Terminal contact platings: gold over nickel alloy
  Terminal contact platings: gold over nickel alloy

🖾 Configure Complete Part Number > 📗 🐵 Browse Standard Parts >

inches [millimeters]

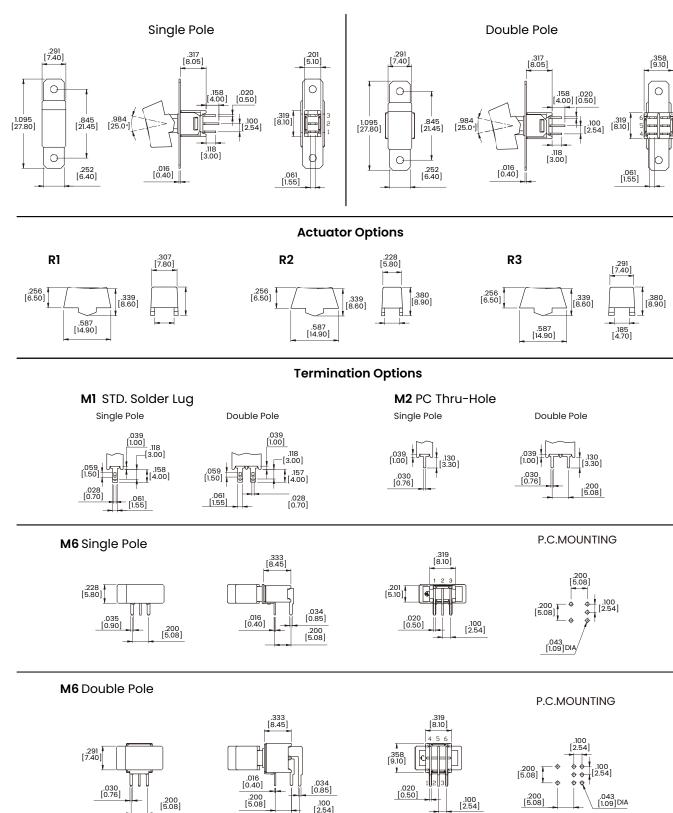


inches [millimeters]



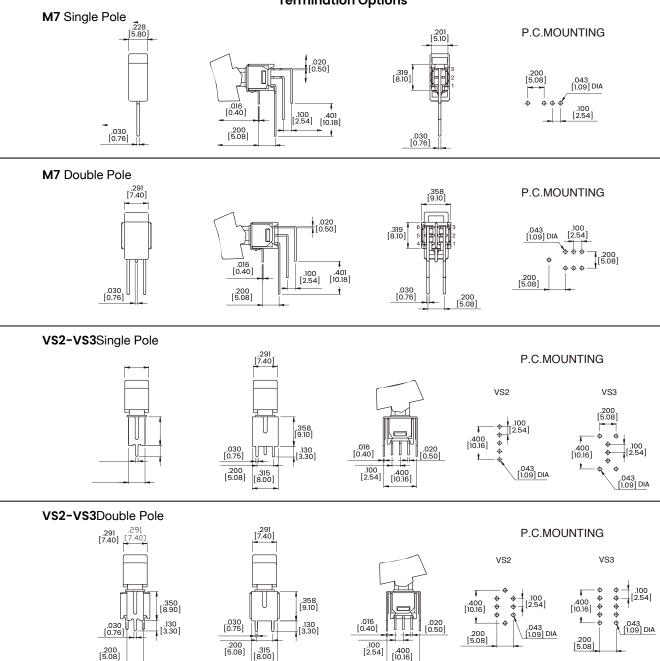
<sup>\*</sup> PC Mounting for M61, M71, VS21 refer to M6, M7, VS2 respectively.

inches [millimeters]



inches [millimeters]





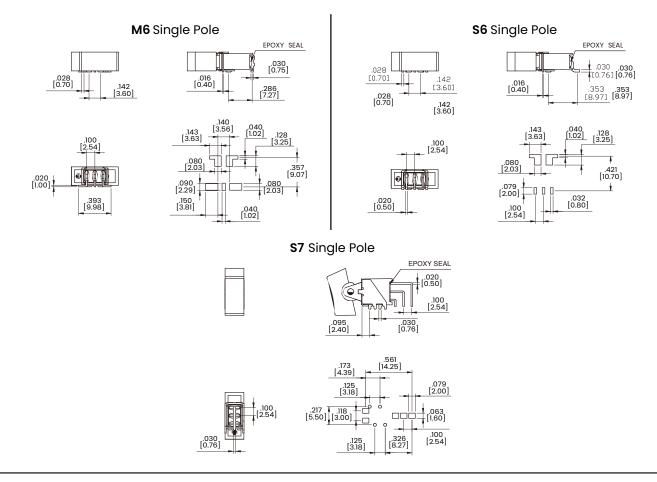
### **Snap-In Termination Options**

.039 [1.00]

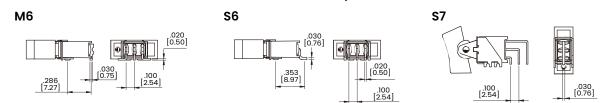
M61 M71 **VS21** .016 [0.40] .039 [1.00] .039 [1.00]

<sup>\*</sup> PC Mounting for M61, M71, VS21 refer to M6, M7, VS2 respectively.

inches [millimeters]



### **Termination Options**



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