



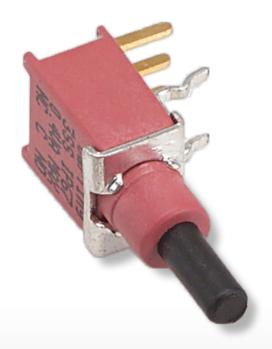
3S-Series

Miniature Pushbutton Switches

PRODUCT WEBPAGE

request sample, configure part





The 3S family of sub-miniature pushbutton switches is composed of three switch series; the 3S1-Series subminiature pushbutton switch, the 3SS-Series sealed sub-miniature pushbutton switch, and the 3SM-Series surface mount sealed sub-miniature pushbutton switch. All switches are available with a variety of rating, termination and actuator choices, and will withstand temperatures from -30°C to +85°C.

.4-6

125, 250

Poles Amps VDC

Typical Applications

- Instrumentation
- Networking
- · Performance Audio
- Computers
- Low Power On/Off Designs



Telecommunications

Tech Specs



3SS-Series Sealed Sub-Miniature **Pushbutton Switch**



3S1-Series Sub-Miniature Pushbutton Switch



3SM-Series **Sealed Surface Mount** Sub-Miniature **Pushbutton Switch**

Electrical

Contact Rating	refer to ordering scheme
Electrical Life	50,000 make & break cycles @ full load
Contact Resistance	20 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

Physical

Operating Temperature	-30°C to +85°C		
Index of Protection	3SS & 3SM-Series: IP67		
Solder Heat Resistance	MIL-STD-202, Method 210		

Material

Case	all UL94 V-0 3S1-Series: Dially phthalate (DAP) 3SS-Series: Glass filled nylon 6/6,flame retardant, heat stabilized 3SM-Series: Glass filled nylon 4/6,flame retardant, heat stabilized
Plunger	3SI-Series:Thermoplastic polyester, black 3SS-Series: Thermoplastic polyester (UL 94V-0), with internal o-ring 3SM-Series: Glass filled nylon 4/6,flame retardant, heat stabilized
Bushing	3S1-Series: Brass, nickel plated 3SS-Series: Glass filled nylon 6/6,flame retardant, heat stabilized (UL 94V-0) 3SM-Series: Glass filled nylon 4/6,flame retardant, heat stabilized (UL 94V-0)
Housing	Stainless Steel
Switch Support	Brass, tin plated
Terminal Seal	Ероху

Ordering Scheme

Part Number Selection

1. SERIES

Sealed Sub-Miniature Pushbutton Switch

2. POLES

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

3. CIRCUIT

() - momentary **Świtching Position: 1** 2-1, 5-4 (ON) 2-3, 5-6 ON (ON) OFF Note: Plunger at rest in Position 1. Plunger depressed in Position 2.

4. ACTUATOR STYLE 4

М2 PC Mount, 90° horizontal Snap-In, 90° horizontal PC Mount, 90° vertical M6 M61 М7 Snap-In, 90° vertical PC Mount, U bracket VS21 Snap-In, Ú bracket

5. CONTACTS / TERMINALS

Со	ntact Material	Terminal Plating	g Rating Approve	ıls
G	silver ¹	gold over silver	1A 125VAC or 28VDC	IP67
Κ	gold ²	tin ^{3,4}	0.4VA max 20V max (AC/DC)	IP67
Р	silver ¹	tin ^{3,4}	1A 125VAC or 28VDC	IP67
R	gold ²	gold ²	0.4VA max 20V max (AC/DC)	IP67

8. EPOXY SEAL

Epoxy Seal 0 without Epoxy Seal

es.

Movable contact & terminal platings: silver over copper alloy
Movable contact & terminal platings: gold over nickel over copper alloy
Terminal platings: tin over nickel over copper alloy
Tin option available with PC terminations only.

Browse Standard Parts >

Ordering Schemes

Part Number Selection

1. SERIES

Sub-Miniature Pushbutton Switch

2. POLES

Single pole - uses terminals 1, 2 & 3

3. CIRCUIT

() - momentary **Switching Position:** 2-3, 5-6 (NO) ON OFF (ON) Note: Plunger at rest in Position 1. Plunger depressed in Position 2.

4. ACTUATOR STYLE

B5 1 10-48 Threaded В9 Flush Bushing **B6** Unthreaded "D" RΩ 1/4" Unthreaded "D" 0P1 **B7** Unthreaded Snap-In with bezel 1/4-40 Threaded "D" PΟ Flush Plunger

🗑 Configure Complete Part Number 🗲

Browse Standard Parts >

5. TERMINATION

Solder Lug M6 PC Mount, 90° horizontal PC Mount, 90° vertical VS2 PC Mount, U bracket M61 Snap-In, 90° horizontal PCB M71 Snap-In, 90° vertical VS21 Snap-In, U bracket

6. CONTACTS / TERMINALS

Contact Material Terminal Plating Rating gold over silver silver 3 1A@125VAC or 28VDC gold ^{4,7} 0.4VA max @ 20V max (AC/DC) tin 6 silver ^{3,8} 1A@125VAC or 28VDC silver 3 silver 3 1A@125VAC or 28VDC Q R gold 4 $\operatorname{gold}{}^{\,5}$ 0.4VA max @ 20V max (AC/DC)

7. EPOXY SEAL

Epoxy Seal without Epoxy Seal

- es:

 Hardware includes (2) 2M1-HDW21 nuts, and (1) 2M1-HDW22 washer

 Hardware includes (2) 2M1-HDW2 nuts, (1) 2M1-HDW11 washer,

 and (1) 2M1-HDW16 locking ring

 Movable contact and terminal platings: silver over copper alloy
- Movable contact and terminal platings; sivel over copper alloy Movable contact and terminal 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: silver over nickel alloy

Sample Part Number	3\$1	_	SP	9	_	B6	- <u>M</u> 7	_	R	E
Selection	1		2	3		4	5		6	7

1. SERIES

3MS Sealed Snap-Action Miniature Pushbutton Switch

2. POLES

Single pole - uses terminals 1, 2 & 3

3. CIRCUIT

() - momentary Switching Position: 2-3, 5-6 ON (ON) Note: Plunger at rest in Position 1. Plunger depressed in Position 2.

4. TERMINATION

Surface Mount, horizontal .433 [11.00 mm] Surface Mount, 90° flat .286 [7.26 mm] Surface Mount, 90° right angle Surface Mount, 90° horizontal .353 [8.97 mm] М7

5. CONTACTS/TERMINALS

Contact Material Terminal Plating Rating **Approvals** silver 1 gold over silver tin ⁴ tin ⁴ 1A 125VAC or 28VDC IP67 gold ^{2,5} silver ^{1,6} 0.4VA max 20V max (AC/DC) **IP67** 1A 125VAC or 28VDC IP67 silver 1 Q R silver 1 1A 125VAC or 28VDC IP67 0.4VA max 20V max (AC/DC)

6. EPOXY SEAL

Epoxy Seal 0 without Epoxy Seal

7. PACKAGING

tape reel - 500 pieces per reel Switches are bulk packed, unless T/R is specified at the end of the part number.

Notes

- as:

 Movable contact and terminals platings: silver over copper alloy

 Movable contact platings: gold over nickel over copper alloy

 Terminal platings: gold over nickel over copper alloy

 Terminals platings: tin over copper alloy

 Terminal contact platings: gold over nickel alloy

 Terminal contact platings: silver over nickel alloy

🛭 Configure Complete Part Number > 💮 🕾 Browse Standard Parts >

3S-Series Accessories

To order accessories assembled on a switch, specify the switch number followed by the accessory part number and the word "assembled". Ex: 3S1-SP9-B6-M7-RE-C23 ASSEMBLED. To order accessories in bulk, specify the Series, followed by the accessory. Ex: 3S1-C13.

Sample **Optional Cap** Selection

1. SERIES

Fits 3SS, 3SI or 3MS

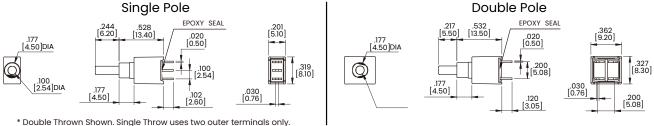
2. TOGGLE CAP SIZE

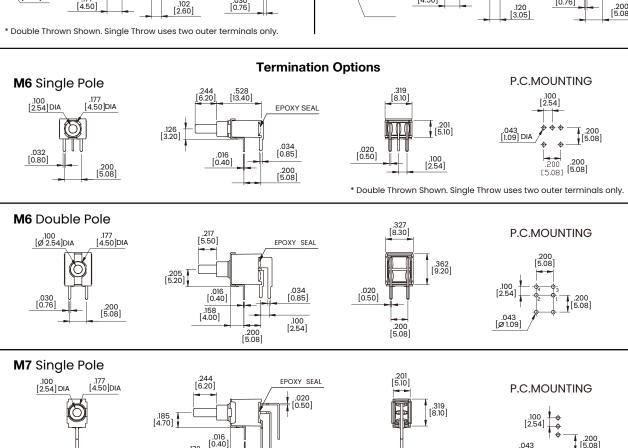
.138" [35.05 mm] height C1 .158" [4.01 mm] height

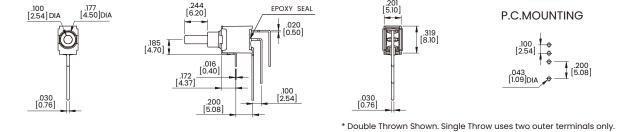
3. CAP COLOR

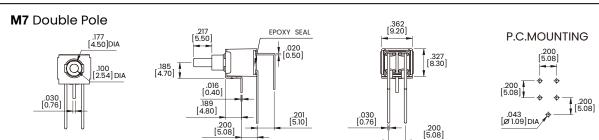
White Yellow Black Green Red

inches [millimeters]



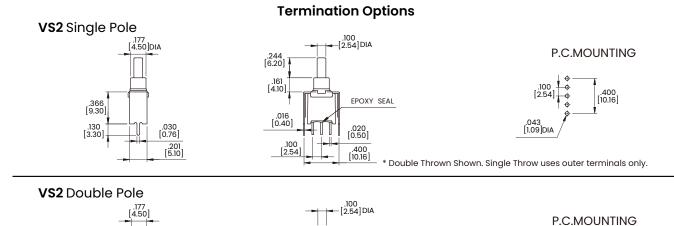






inches [millimeters]

.366 [9.30]



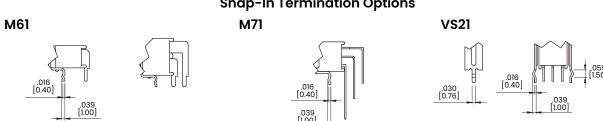
Snap-In Termination Options

EPOXY SEAL

.020 [0.50]

.043 [1.09]DIA

.200 [5.08]



 $^{^{*}}$ PC Mounting for M61, M71, VS21 refer to M6, M7, VS2 respectively.

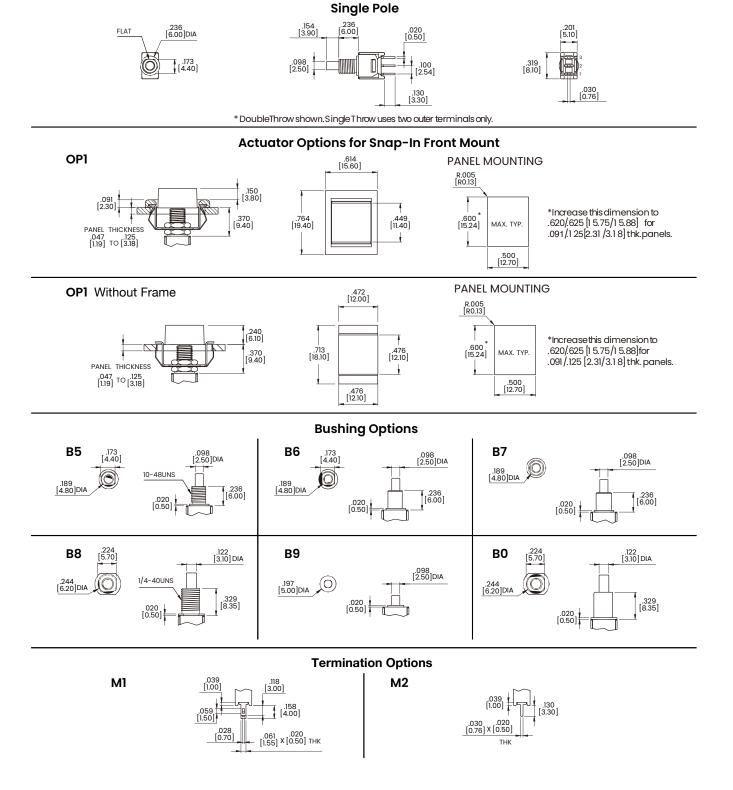
.217 [5.50]

.161 [4.10]

.016 [0.40]

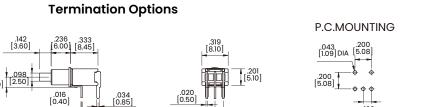
.200 [5.08]

inches [millimeters]



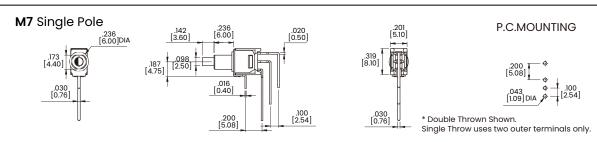
inches [millimeters]

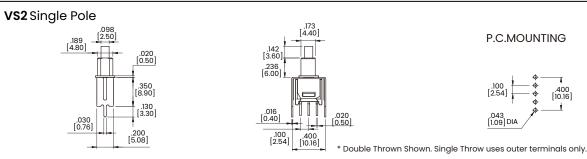
M6 Single Pole



* Double Thrown Shown.

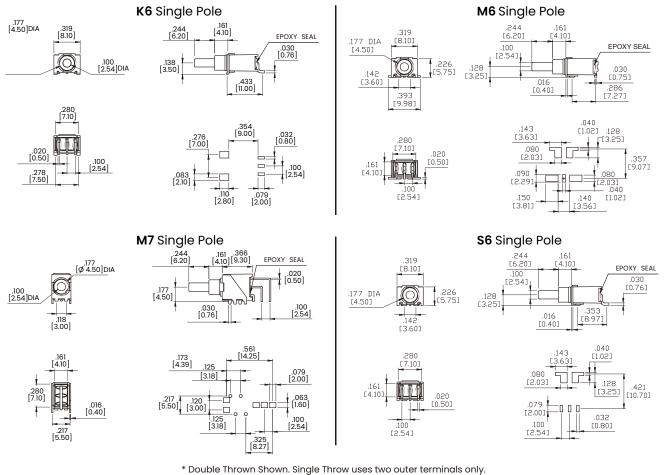
Single Throw uses two outer terminals only.



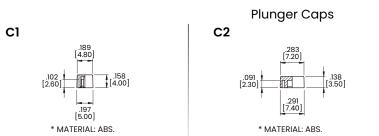


^{*} PC Mounting for M61, M71, VS21 refer to M6, M7, VS2 respectively.

inches [millimeters]







CAP COLORS					
1	White	6	Green		
2	Black	7	Blue		
3	Red	8	Brown		
4	Orange	9	Gray		
5	Yellow				

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