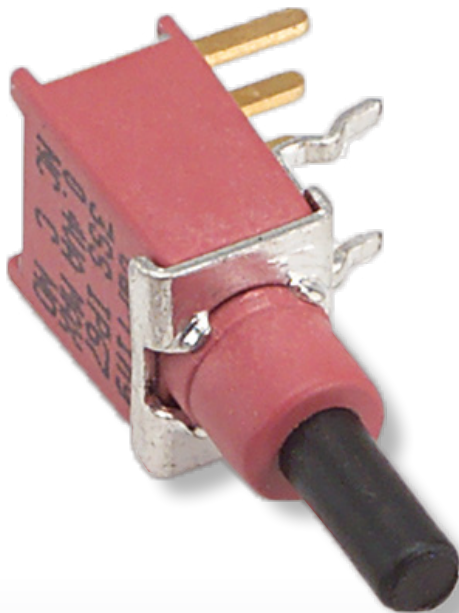


3S-Series

Miniature Pushbutton Switches

PRODUCT WEBPAGE

request sample, configure part



The 3S family of sub-miniature pushbutton switches is composed of three switch series; the 3SI-Series sub-miniature 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.

1-2	.4-6	125, 250	28
Poles	Amps	VAC	VDC

Typical Applications

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

Ordering Schemes

Sample Part Number 3S1 - SP 9 - B6 - M7 - R E

Selection 1 2 3 4 5 6 7

1. SERIES

3S1 Sub-Miniature Pushbutton Switch

2. POLES

SP Single pole - uses terminals 1, 2 & 3

3. CIRCUIT

() - momentary

Switching Position: 1 2
 2-3, 5-6 2-1, 5-4
 8 ON (ON)
 9 OFF (ON)

Note: Plunger at rest in Position 1. Plunger depressed in Position 2.

4. ACTUATOR STYLE

B5¹ 10-48 Threaded B9 Flush Bushing
 B6 Unthreaded "D" B0 1/4" Unthreaded "D"
 B7 Unthreaded OP1 Snap-In with bezel
 B8² 1/4-40 Threaded "D" PO Flush Plunger

[Configure Complete Part Number >](#)

[Browse Standard Parts >](#)

5. TERMINATION

M1 Solder Lug M6 PC Mount, 90° horizontal
 M7 PC Mount, 90° vertical VS2 PC Mount, U bracket
 M2 PCB M71 M61 Snap-In, 90° horizontal
 Snap-In, 90° vertical VS21 Snap-In, U bracket

6. CONTACTS / TERMINALS

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

7. EPOXY SEAL

E Epoxy Seal 0 without Epoxy Seal

Notes:

- 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: 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 3S1 - SP 9 - B6 - M7 - R E

Selection 1 2 3 4 5 6 7

1. SERIES

3MS Sealed Snap-Action Miniature Pushbutton Switch

2. POLES

SP Single pole - uses terminals 1, 2 & 3

3. CIRCUIT

() - momentary

Switching Position: 1 2
 2-3, 5-6 2-1, 5-4
 7 ON (ON)

Note: Plunger at rest in Position 1. Plunger depressed in Position 2.

4. TERMINATION

K6 Surface Mount, horizontal .433 [11.00 mm]
 M6 Surface Mount, 90° flat .286 [7.26 mm]
 M7 Surface Mount, 90° right angle
 S6 Surface Mount, 90° horizontal .353 [8.97 mm]

5. CONTACTS/TERMINALS

Contact Material	Terminal Plating	Rating	Approvals
G silver ¹	gold over silver	1A 125VAC or 28VDC	IP67
K gold ^{2,5}	tin ⁴	0.4VA max 20V max (AC/DC)	IP67
P silver ^{1,6}	tin ⁴	1A 125VAC or 28VDC	IP67
Q silver ¹	silver ¹	1A 125VAC or 28VDC	IP67
R gold ²	gold ³	0.4VA max 20V max (AC/DC)	IP67

6. EPOXY SEAL

E Epoxy Seal 0 without Epoxy Seal

7. 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:

- 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.

Optional Cap

Sample Part Number 3S1 - C1 3

Selection 1 2 3

1. SERIES

3S1 Fits 3SS, 3S1 or 3MS

2. TOGGLE CAP SIZE

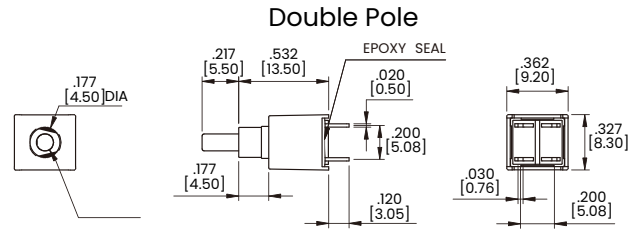
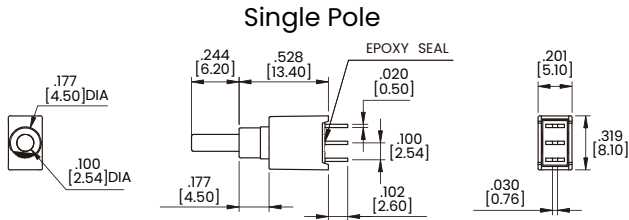
C1 .158" [4.01 mm] height C2 .138" [35.05 mm] height

3. CAP COLOR

1 White	5 Yellow
2 Black	6 Green
3 Red	7 Blue
4 Orange	

Dimensional Specs

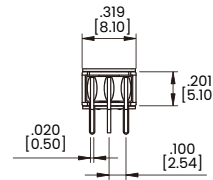
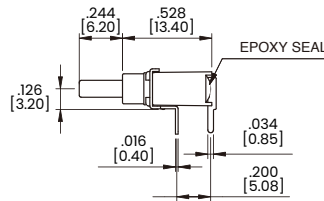
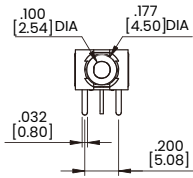
inches [millimeters]



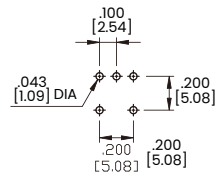
* Double Thrown Shown. Single Throw uses two outer terminals only.

Termination Options

M6 Single Pole

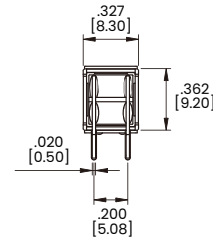
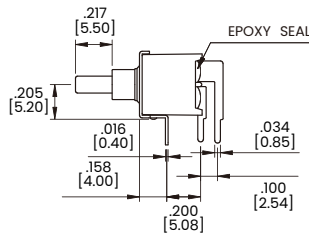
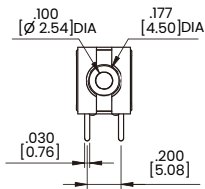


P.C.MOUNTING

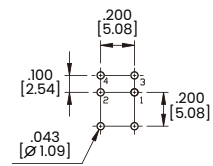


* Double Thrown Shown. Single Throw uses two outer terminals only.

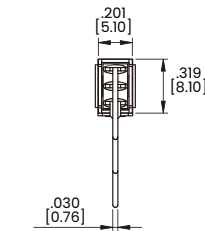
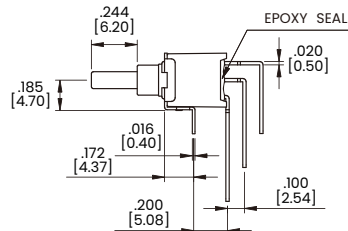
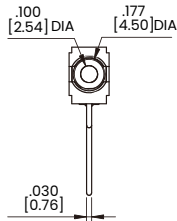
M6 Double Pole



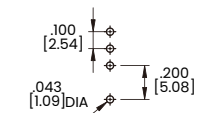
P.C.MOUNTING



M7 Single Pole

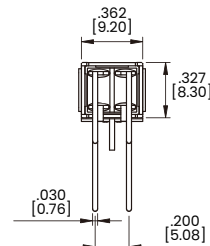
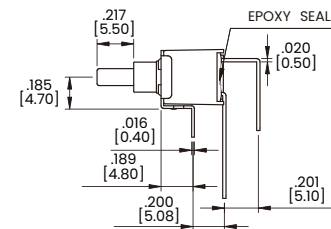
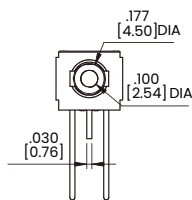


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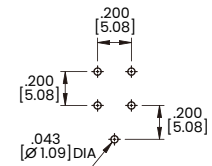


* Double Thrown Shown. Single Throw uses two outer terminals only.

M7 Double Pole



P.C.MOUNTING

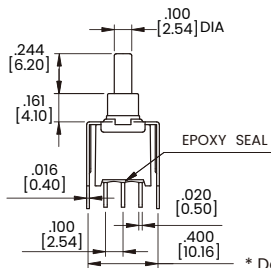
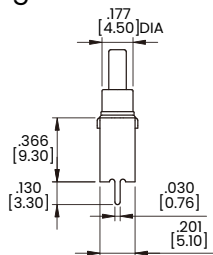


Dimensional Specs

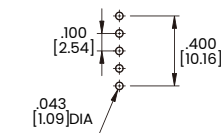
inches [millimeters]

Termination Options

VS2 Single Pole

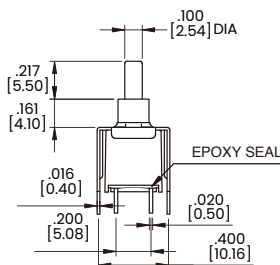
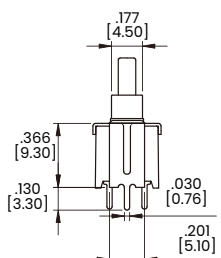


P.C.MOUNTING

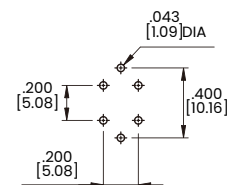


* Double Throw Shown. Single Throw uses outer terminals only.

VS2 Double Pole

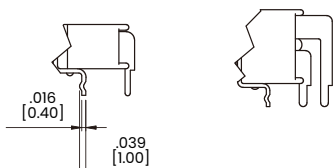


P.C.MOUNTING

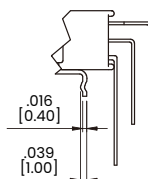


Snap-In Termination Options

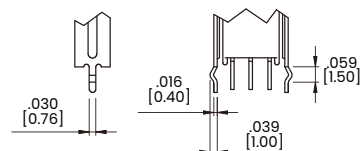
M61



M71



VS21

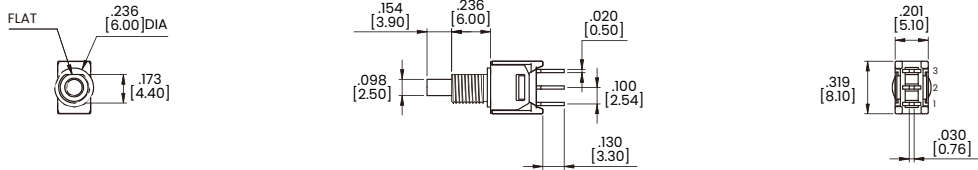


* PC Mounting for M61, M71, VS21 refer to M6, M7, VS2 respectively.

Dimensional Specs

inches [millimeters]

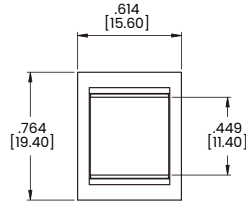
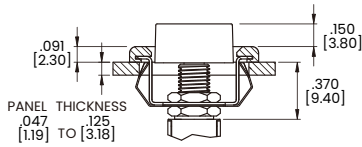
Single Pole



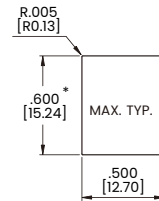
* DoubleThrow shown. Single Throw uses two outer terminals only.

Actuator Options for Snap-In Front Mount

OPI

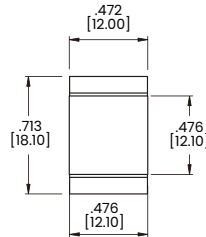
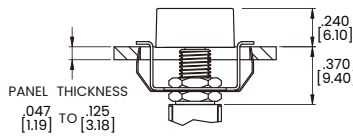


PANEL MOUNTING

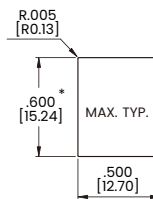


*Increase this dimension to .620/.625 [15.75/15.88] for .091/.125 [2.31/3.18] thk. panels.

OPI Without Frame



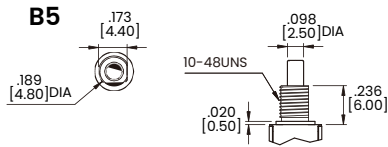
PANEL MOUNTING



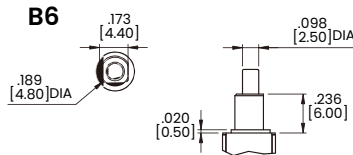
*Increase this dimension to .620/.625 [15.75/15.88] for .091/.125 [2.31/3.18] thk. panels.

Bushing Options

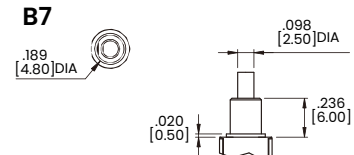
B5



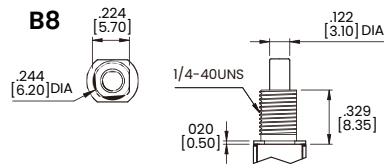
B6



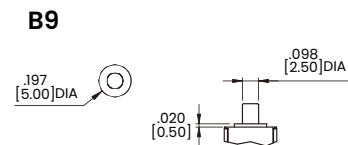
B7



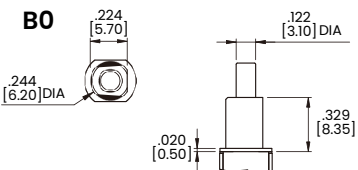
B8



B9

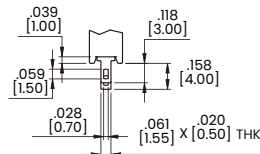


B0

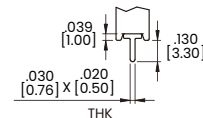


Termination Options

M1



M2

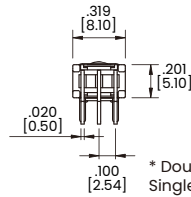
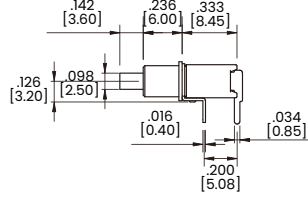
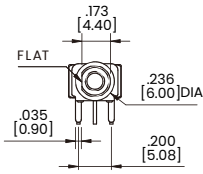


Dimensional Specs

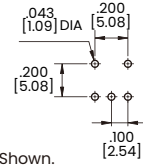
inches [millimeters]

Termination Options

M6 Single Pole

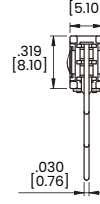
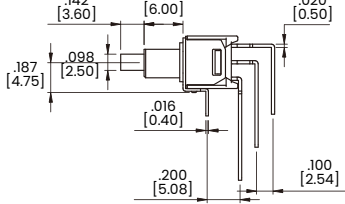
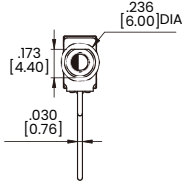


P.C.MOUNTING

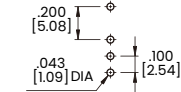


* Double Throw Shown.
Single Throw uses two outer terminals only.

M7 Single Pole

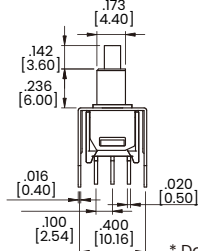
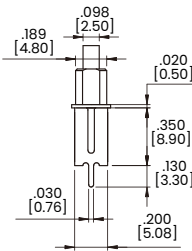


P.C.MOUNTING

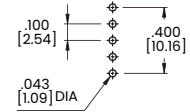


* Double Throw Shown.
Single Throw uses two outer terminals only.

VS2 Single Pole



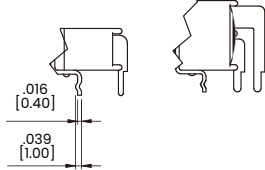
P.C.MOUNTING



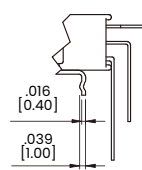
* Double Throw Shown. Single Throw uses outer terminals only.

Snap-In Termination Options

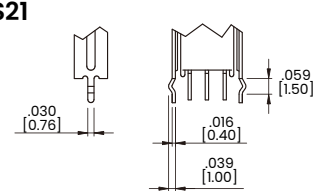
M61



M71



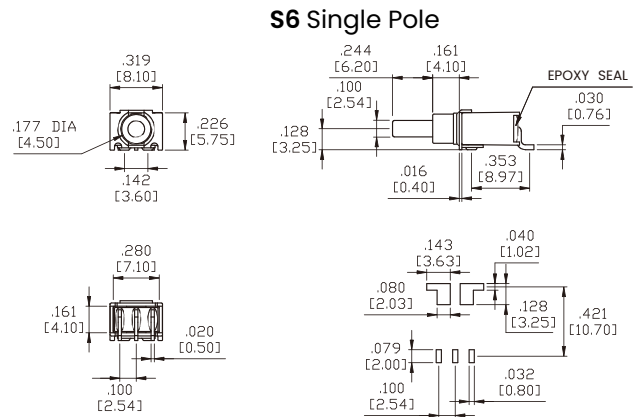
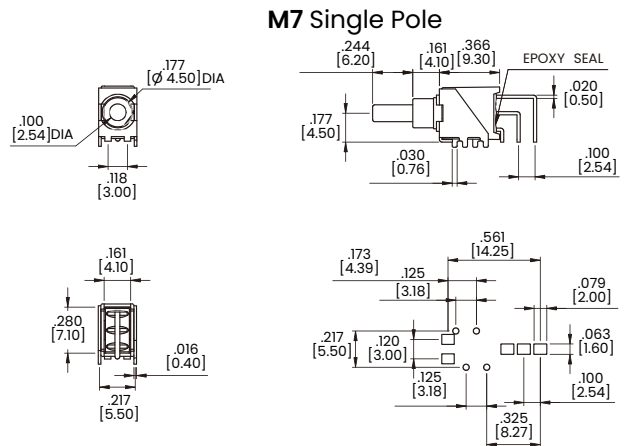
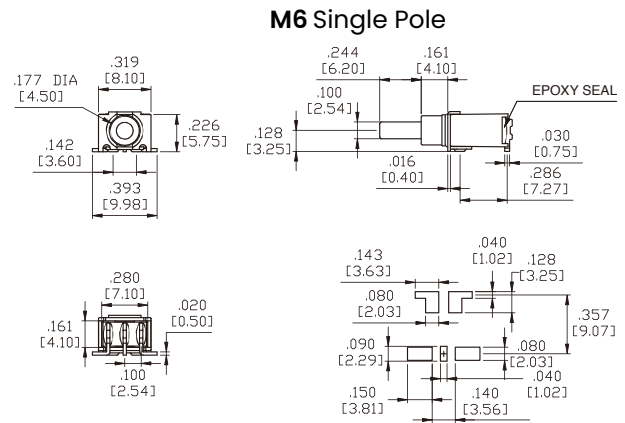
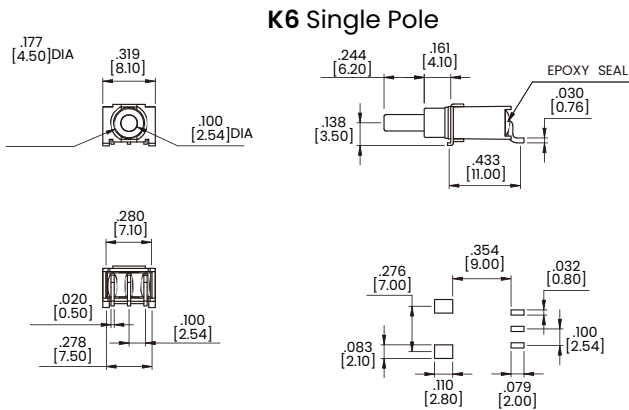
VS21



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

Dimensional Specs

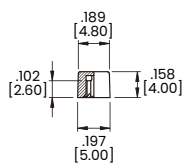
inches [millimeters]



* Double Thrown Shown. Single Throw uses two outer terminals only.

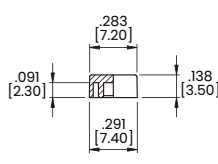
Plunger Caps

C1



* MATERIAL: ABS.

C2



* MATERIAL: ABS.

CAP COLORS

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

Authorized Sales Representatives and Distributors

Click on a region of the map below to find your local representatives and distributors or visit www.carlingtech.com/findarep.



About Carling

Founded in 1920, Carling Technologies is a leading manufacturer of electrical and electronic switches and assemblies, circuit breakers, electronic controls, power distribution units, and multiplexed power distribution systems. With six ISO9001 and IATF16949 registered manufacturing facilities and technical sales offices worldwide, Carling Technologies Sales, Service and Engineering teams do much more than manufacture electrical components, they engineer powerful solutions! To learn more about Carling please visit www.carlingtech.com/company-profile.

To view all of Carling's environmental, quality, health & safety certifications please visit www.carlingtech.com/environmental-certifications.

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Mouser Electronics

Authorized Distributor

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[3S1-C1-3](#) [3S1-C21](#) [3S1-C23](#) [3S1-C11](#) [3S1-C12](#) [3S1-C22](#) [3S1-SP8-B6-M2QE](#) [3S1-SP8-B6-M7RE](#) [3S1-SP9-B6-M6RE](#) [3S1-SP9-B6-M7RE](#) [3SM-SP8-M6-GET/R](#) [3SS-WDP9-M6RE](#) [3S1-C1-1](#)