

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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3S1-Series Sub-Miniature

Pushbutton Switch



Contact Rating refer to ordering scheme

Electrical Life 50,000 make & break cycles @ full

load

Contact Resistance. 20 m Ω max. initial @ 2-4 VDC

100mA for both silver & gold plated

contacts.

Insulation Resistance . . . 1000 M Ω min.

Dielectric Strength 1500 Volts RMS @ sea level

Operating Temperature . . . -30°C to +85°C

Index of Protection 3SS & 3SM-Series: IP67 Solder Heat Resistance. . . MIL-STD-202, Method 210

Actuator Travel 25°

Materials

Case UL 94-0

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

.3S1-Series: Thermoplastic poly-

ester, black

3SS -Series: Thermoplastic polyester (UL 94V-0), with internal o-ring

3SM-Series: Glass filled nylon 4/6, flame retardant, heat stabilized

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 Epoxy



3SS-Series

3SM-Series

Sealed Surface

Mount Sub-Miniature

Pushbutton Switch

Sealed Sub-Miniature Pushbutton Switch

3S1-Series Ordering Scheme











Series

Circuit

Bushina

Termination

Contact

3S1 Sub-Miniature Pushbutton Switch

2 POLES SP single pole

3 CIRCUIT () - momentary

(ON)

4 BUSHING

10-48 Threaded **B5** Unthreaded "D" **B7** Unthreaded 1/4-40 Threaded "D" **B8** Flush Bushing 1/4" Unthreaded "D" B₀

5 TERMINATION

Solder Lug PCB M1 M2

PC Mount, 90° horizontal M61 M7 Snap-In, 90° horizontal PC Mount, 90° vertical M71

Snap-In, 90° vertical PC Mount, U bracket, .620 mounting x .460 high Snap-In, U bracket

6 CONTACT

Material Terminal Plating silver1

Rating 1A@125VAC or 28VDC 0.4VA max. @20V max (AC/DC) 1A@125VAC or 28VDC gold over silver tin-lead4 gold² silver¹ K P Q R tin-lead4 1A@125VAC or 28VDC n gold² NOTE: silver1 silver1 gold² 0.4VA max. @20V max (AC/DC)

Tin-lead option available with PC type terminations only.

Moveable contact & terminals: copper alloy, silver plate

Moveable contact & terminals: copper alloy with gold plate over nickel plate

Terminals: silver plated with outer layer in gold plating Outer terminals: copper alloy with tin-lead over nickel plate

7 EPOXY SEAL epoxy seal



3SS-Series Ordering Scheme



3SS Sealed Sub-Miniature Pushbutton Switch WSP single pole WDP double pole

3 CIRCUIT () - momentary

(ON) (ON)

4 TERMINATION

PC Mount, 90° horizontal Snap-In. 90° horizontal M6 M61 PC Mount, 90° vertical Snap-In, 90° vertical PC Mount. U bracket M71 VS2 Snap-In, U bracket

5 CONTACT

Material Terminal Plating

G silver1 gold over silver gold² silver¹ tin-lead4 tin-lead4 0.4VA max. @20V max (AC/DC) IP67 R gold² gold²

NOTE:

Tin-lead option available with PC type terminations only.

- Moveable contact & terminals: copper alloy, silver plate
 Moveable contact & terminals: copper alloy with gold plate over nickel plate
- Terminals: silver plate with outer layer in gold plating
- Outer terminals: copper alloy with tin-lead over nickel plate

6 EPOXY SEAL epoxy seal

3SM-Series Ordering Scheme



1 SERIES 3SM Sealed Surface Mount Pushbutton Switch

2 POLES single pole double pole

3 CIRCUIT

() - momentary (ON)

4 TERMINATION

Surface Mount, 90° flat Surface Mount, 90° vertical Surface Mount, 90° horizontal M6 M7 S6

5 CONTACT

Material Terminal Plating Rating 1A@125VAC or 28VDC IP67 0.4VA max. @20V max (AC/DC) IP67 gold over silver tin-lead plated silver1 gold² tin-lead plated4 1A@125VAC or 28VDC IP67 0.4VA max. @20V max (AC/DC) IP67 Ŕ gold² gold plated2 NOTE:

Tin-lead option available with PC type terminations only.

- Moveable contact & terminals: copper alloy, silver plate
 Moveable contact & terminals: copper alloy with gold plate over nickel plate
- Terminals: silver plate with outer layer in gold plating
- Outer terminals: copper alloy with tin-lead over nickel plate

6 EPOXY SEAL

Ε epoxy seal

7 PACKAGING

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

T/R tape reel - 500 pieces per reel

3S-Series Optional Cap

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-C23ASSEMBLED

To order accessories in bulk, specify the Series, followed by the accessory. Ex.) 3S1-C13



1 SERIES OR SWITCH CATALOG NUMBER 3S1, 3SS or 3SM

2 CAP SIZE 10.6mm C2 7.6mm 3 CAP COLOR¹

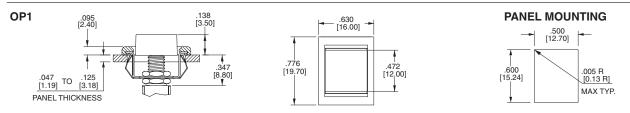
white 5 yellow 2 black green 3 red blue 4 orange

Black, white & red standard. Other colors available. Consult factory.

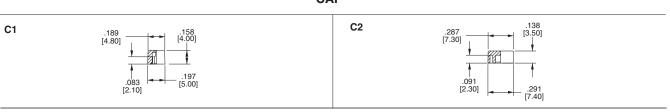


3S1-Series Dimensional Specifications: in. [mm]

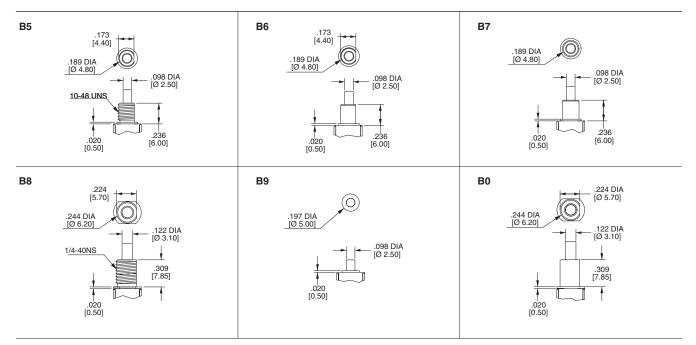
ACTUATOR



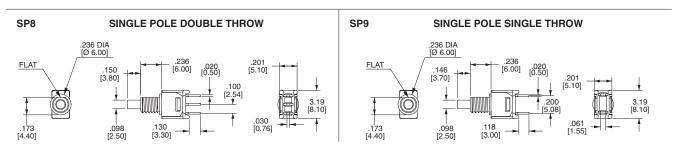
CAP



BUSHING

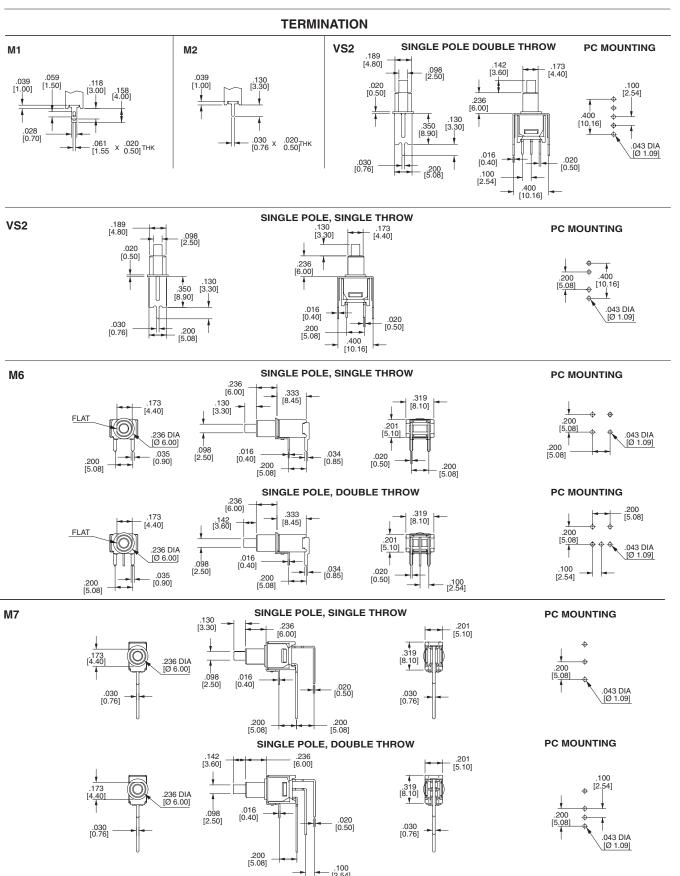


TERMINATION





3S1-Series Dimensional Specifications: in. [mm]





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

SNAP-IN TERMINATION





M71



VS21



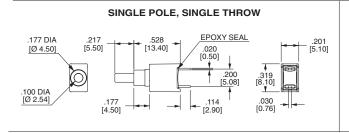
M61,M71,VS21 have the same P.C. mounting but with snap-in bracket.

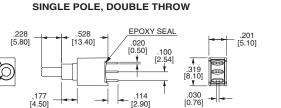
TERMINATION

.177 DIA

[Ø 4.50]

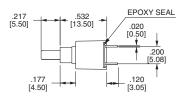
.100 DIA [Ø 2.54]

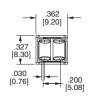




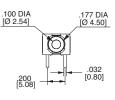
DOUBLE POLE, SINGLE THROW

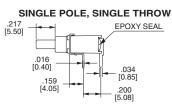


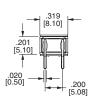


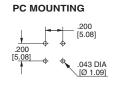


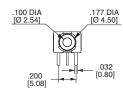
М6

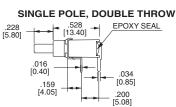


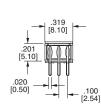


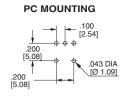










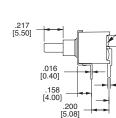


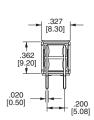
PC MOUNTING

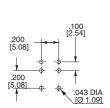
DOUBLE POLE, SINGLE THROW

EPOXY SEAL

.100 [2.54]







.030 [5.08]



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

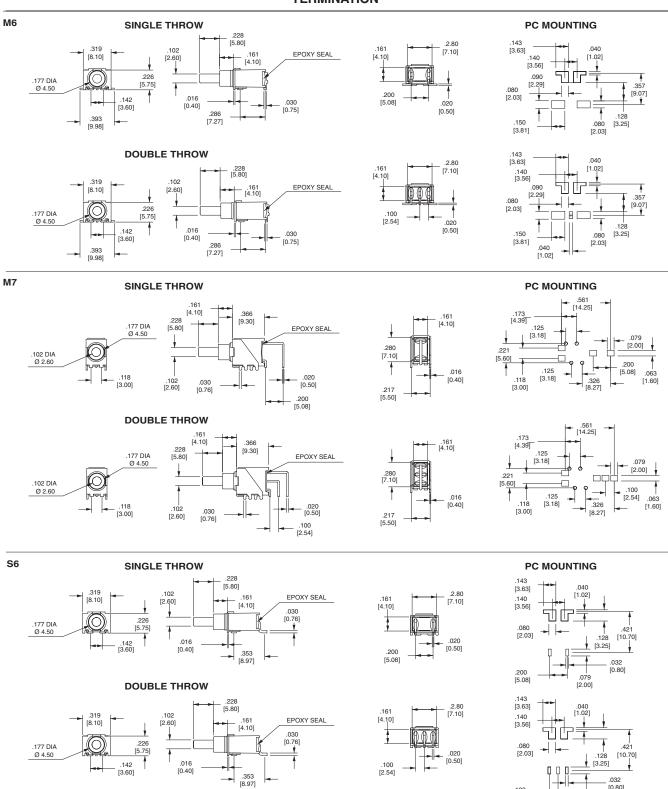
TERMINATION M7 SINGLE POLE, SINGLE THROW PC MOUNTING .100 DIA [Ø 2.54] .177 DIA [Ø 4.50] .201 [5.10] .319 [8.10] .200 [5<u>.08]</u> .016 [0.40] .043 DIA [Ø 1.09] .020 [0.50] .172 [4.37] SINGLE POLE, DOUBLE THROW PC MOUNTING .100 DIA [Ø 2.54] .177 DIA [Ø 4.50] .201 [5.10] **EPOXY SEAL** .228 [5.80] .200 [5<u>.08]</u> .030 [0.76] .020 [0.50] .030 [0.76] .200 [5.08] .100 [2.54] .177 DIA [Ø 4.50] **DOUBLE POLE, SINGLE THROW** .100 DIA [Ø 2.54] .362 [9.20] PC MOUNTING **EPOXY SEAL** .217 [5.50] .327 [8.30] [5.08] .016 [0.40] .189 [4.80] .185 [4.70] VS2 SINGLE POLE, SINGLE THROW **PC MOUNTING** .200 [5.08] .217 [5.50] .161 [4.10] EPOXY SEAL .016 [0.40] .043 DIA [Ø 1.09] .030 [0.76] .400 [10.16] SINGLE POLE, DOUBLE THROW **PC MOUNTING** .177 DIA [Ø 4.50] .100 [2.54] .228 [5.80] .400 [10.16] .161 [4.10] EPOXY SEAL .043 DIA [Ø 1.09] .016 [0.40].020 [0.50] .100 [2.54] .201 [5.10] **DOUBLE POLE, SINGLE THROW PC MOUNTING** .100 DIA [Ø 2.54] .177 DIA [Ø 4.50] .200 .217 .161 [4.10] EPOXY SEAL .366 [9.30] .043 DIA [Ø 1.09] .200 [5.08] .016 [0.40] .020 [0.50] .200 [5.08]

.400 [10.16]



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

TERMINATION



[0.80]

.079 [2.00]

.100

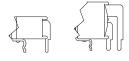
[2.54]



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

SNAP-IN TERMINATION

M61 M71 VS21







M61,M71,VS21 have the same P.C. mounting but with snap-in bracket.

REEL TAPING

