

2M-Series

MINIATURE TOGGLES

The 2M family of miniature toggle switches is composed of three switch series; the **2M1-Series** miniature toggle switch, the **2MS-Series** sealed miniature toggle switch, and the **2M1H-Series** premium sealed miniature toggle switch. These series all feature PC mounting and offer a variety of ratings, circuits, contact materials, terminal platings, toggle styles and lengths, and optional color caps.



2M1H-Series



2MS-Series



2M1-Series

Product Highlights:

- ♦ IP67 Sealing
- ♦ 8 Single and Double Pole Circuits
- ♦ Long, Short and Flatted Bushing Options
- ♦ Large Variety of Termination Options
- ♦ Available Gold, Silver and Tin Platings
- ♦ UL Approved
- ♦ Sleek Black Finish

Typical Applications:

- ♦ Telecommunications
- ♦ Instrumentation
- ♦ Networking
- ♦ Medical Equipment
- ♦ Military Communications

Resources:

Download 3D CAD Files

[IGS >](#) [STP >](#)



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2MS - WSP 1 - T1 - B4 - M1 G E

1
Series

2
Poles

3
Circuit

4
Actuator Style

5
Bushing

6
Termination

7
Contacts

8
Seal

1 SERIES

2MS Sealed Miniature Toggle Switch

2 POLES

WSP Single pole - uses terminals 1, 2 & 3

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

W3P Three pole - uses terminals 1, 2, 3, 4, 5, 6, 7, 8 & 9

3 CIRCUIT

() - momentary

Position:	1	2	3
	2-3, 5-6, 8-9	Connected Terminals	2-1, 5-4, 8-7
1	ON	NONE	ON
2	ON	NONE	(ON)
3	ON	OFF	ON
4	(ON)	OFF	(ON)
5	ON	OFF	(ON)

4 ACTUATOR STYLE

T1 Round Bat

T2 Round Short Bat

T9 Long Black Plastic .492" length

P1 Plastic Anti-Static .496" length

P2 Plastic Anti-Static .299" length

5 BUSHING

B1 Threaded, Keyway

B4 Unthreaded, Short, Keyway, Flat

Notes:

B1 Bushing switches supplied with (2) 2M1-HDW2 nuts, (1) 2M1-HDW11 washer and (1) 2M1-HDW15 locking ring. See page 76-77.

1 Movable contact & terminal platings: silver over copper alloy

2 Movable contact & terminal platings: gold over nickel over copper alloy

3 Terminal platings: tin over nickel over copper alloy

4 Tin option not available with M1 terminal

6 TERMINATION

M1 ⁴ Solder Lug

M2 PCB

M3 Quick Connect

M51 Wire Wrap, .750" [19.05mm]

M52 Wire Wrap, .964" [24.48mm]

M53 Wire Wrap, .425" [10.80mm]

M54 Wire Wrap, 1.062" [25.97mm]

M6 Right Angle, PC Thru-Hole

M61 Right Angle, Snap-In

M7 Vertical, Right Angle, PC Thru-Hole

M71 Vertical, Right Angle, Snap-In

VS2 Vertical, .461" [11.70mm]

VS21 Vertical, Snap-In, .460" [11.70mm]

VS3 Vertical, .630" [16mm]

VS31 Vertical, Snap-In, .630" [16mm]

U2 Vertical, .551" [14mm] - only 3PDT

VS4 Vertical, .461" [11.70mm]

VS41 Vertical, Snap-In, .461" [11.70mm]

U4 Vertical, .551" [14mm] - only 3PDT

VS5 Vertical, .630" [16mm]

VS51 Vertical, Snap-In, .630" [16mm]

7 CONTACTS / TERMINALS

Contact Material **Terminal Plating** **Rating**

G	silver ¹	gold over silver	5A 125VAC or 28VDC, 2A 250VAC	Approvals
K	gold ²	tin ^{3, 4}	0.4VA max 20V max (AC/DC)	IP67
P	silver ¹	tin ^{3, 4}	5A 125VAC or 28VDC, 2A 250VAC	IP67
R	gold ²	gold ²	0.4VA max 20V max (AC/DC)	IP67

8 EPOXY SEAL

E Epoxy Seal

0

without Epoxy Seal

2M1 - SP 1 - T1 - B1 - M1 Q E

1
Series

2
Poles

3
Circuit

4
Actuator Style

5
Bushing

6
Termination

7
Contacts

8
Seal

1 SERIES

2M1 Miniature Toggle Switch

2 POLES

SP Single pole - uses terminals 1, 2 & 3

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

3P Three pole - uses terminals 1, 2, 3, 4, 5, 6, 7, 8 & 9

4P Three pole - uses terminals 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 & 12

3 CIRCUIT

() - momentary

Position:	1	2	3
	2-3, 5-6, 8-9, 11-12	Connected Terminals	2-1, 5-4, 8-7, 11-10
1	ON	NONE	ON
2	ON	NONE	(ON)
3	ON	OFF	ON
4	(ON)	OFF	(ON)
5	ON	OFF	(ON)
6*	ON	ON	ON
7*	(ON)	ON	(ON)
8*	ON	ON	(ON)

*Available with DP and 4P switches only. Center position connects 2-3, 5-4, 8-9, 11-10

4 ACTUATOR STYLE

T1 Round Bat

T2 Round Short Bat

T3 Paddle

T4 Medium Paddle

T5 Long Paddle

T6 Flat (B1,B2,B5,BA,BB,BE)

T7 Large Bat (B0 bushing)

T8 X-Large Bat (B0 bushing)

T9 Black Plastic

T0 Rectangular

TA Locking Lever

TI Locking Lever

TL Locking Lever

5 BUSHING

B1 Threaded Standard, keyway

B2 Non-Threaded Standard, keyway

B3 Threaded Short, keyway

B4 Non-Threaded Short, keyway

B5 High Torque, 7.5mm, flat

B6 High Torque, 8.0mm, keyway

B7 Long threaded

B8 Metric

B9 Splashproof

B0 15/32" Threaded (Standard for T7 & T8 actuator styles)

BA Threaded for T6

BB Non-Threaded for T6

BE Threaded Hi Torque for T6

BL Threaded, Locking

6 TERMINATION

M1 ⁴ Solder Lug

M2 PCB

M3 Quick Connect

M51 Wire Wrap, .750" [19.05mm]

M52 Wire Wrap, .964" [24.48mm]

M53 Wire Wrap, .425" [10.80mm]

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VS51 Vertical, Snap-In, .630" [16mm]

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P	silver ¹	tin ^{3, 4}	5A 125VAC or 28VDC, 2A 250VAC	IP67
Q	silver ¹	silver ¹	5A 125VAC or 28VDC, 2A 250VAC	IP67
R	gold ²	gold ²	0.4VA max 20V max (AC/DC)	N/A

8 EPOXY SEAL

E Epoxy Seal

0

without Epoxy Seal

Notes:

B1 Bushing switches supplied with (2) 2M1-HDW2 nuts, (1) 2M1-HDW11 washer and (1) 2M1-HDW15 locking ring.

1 Movable contact & terminal platings: silver over copper alloy

2 Movable contact & terminal platings: gold over nickel over copper alloy

3 Terminal platings: tin over nickel over copper alloy

4 Tin option not available with M1 terminal

2M-Series Accessories

To order accessories assembled on a switch, specify the switch number followed by the accessory part number and the word "assembled". Ex: 2M1-SP1-T1-B1-M1QE-T12 ASSEMBLED. To order accessories in bulk, specify the Series, followed by the accessory. Ex: 2M1-T12. See page 76 for dimensional specifications.

Optional Toggle Cap

2M1 – **T1** **2**

¹
Series

²
Toggle Cap Size

³
Color

1 SERIES

2M1 Fits 2M1H, 2MS or 2M1

3 CAP COLOR

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

2 TOGGLE CAP SIZE

T1 10.6 mm **T2** 7.6 mm

Optional Dress and Knurled Nuts

2M1 – **HDW3**

¹
Series

²
Nut

1 SERIES

2M1 Fits 2M1H, 2MS or 2M1

2 NUT

HDW3 Dress nut for 1/4" bushing
HDW5 Knurled nut for 15/32" bushing (2M1-Series only)

Optional Rubber Seals

2M1 – **E1A**

¹
Series

²
Rubber Boot Seal

1 SERIES

2M1 Fits 2M1H, 2MS or 2M1

2 RUBBER BOOT SEAL

E1A 1/4 - 40" UNS bushing (Not available for B0 bushing option)
K1 Metric M6 bushing (B8 bushing only)
YE1D 15/32 - 32" UNS bushing (TJ, TK and B0 bushings only)
YE1E 15/32 - 32" UNS bushing 1/2 boot (T7, T8, TJ, TK and B0 bushings only)

3MNH – **WCP-0872**

¹
Series

²
Rubber O-Ring

1 SERIES

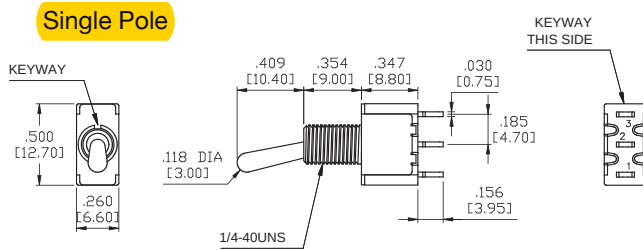
3MNH Fits 3MNH or 2M1H

2 RUBBER O-RING

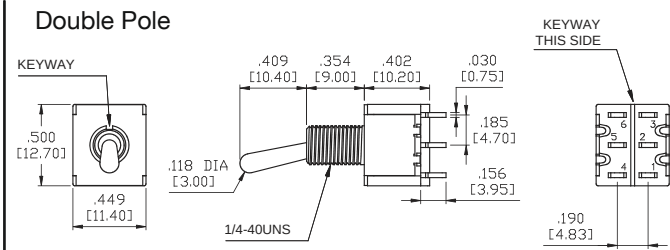
WCP-0872 For 15/32 bushing option

2M1-Series Dimensional Specifications: in. [mm]

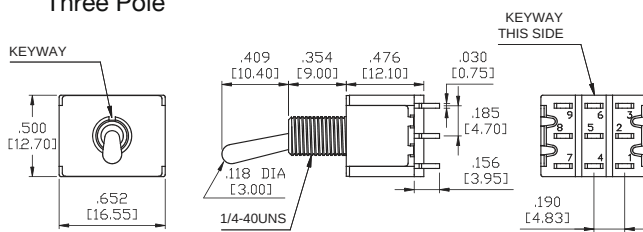
Single Pole



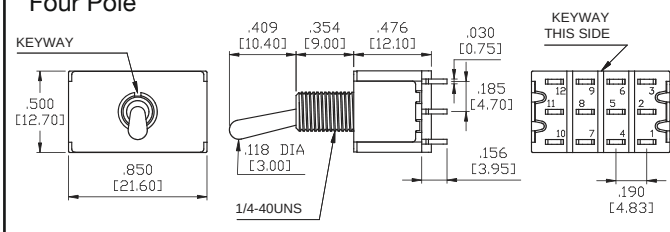
Double Pole



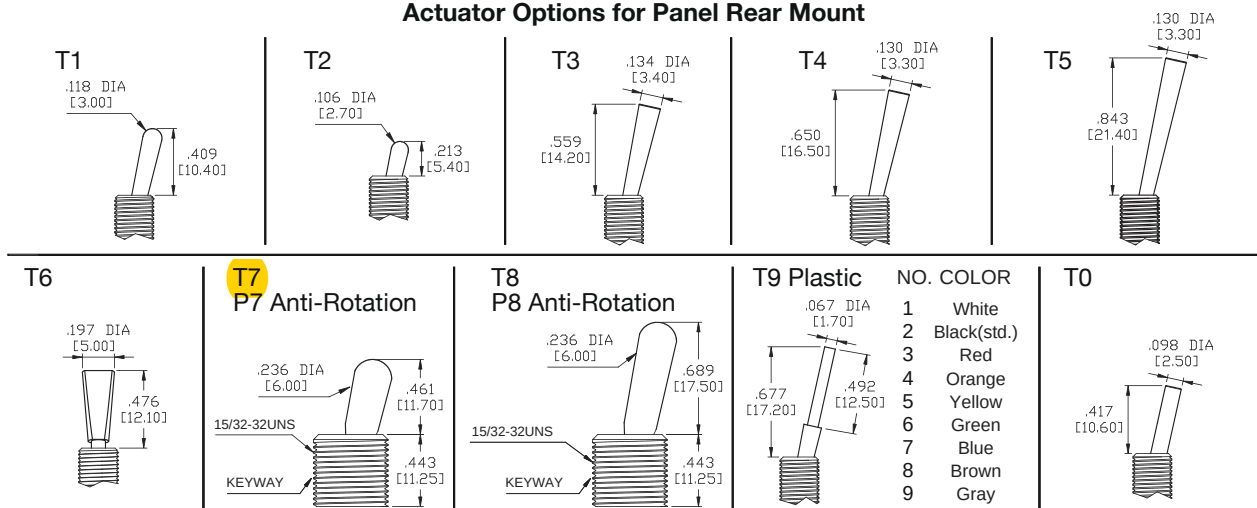
Three Pole



Four Pole

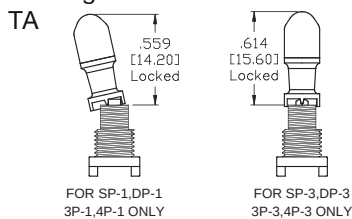


Actuator Options for Panel Rear Mount

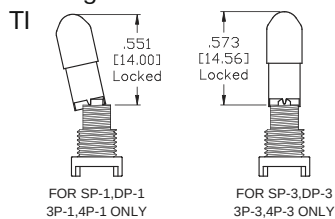


* T6 actuator is available with B1, B2, B5, B6, BA, BB & BE bushing. Actuator length shown for T1 – T5, T9 and T0 is with B1 bushing. T7, P7, T8 & P8 does not require a bushing code.

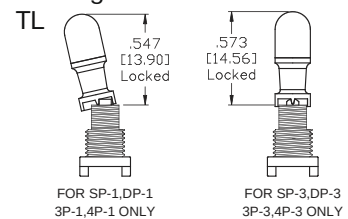
Locking Lever



Locking Lever

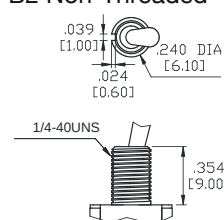


Locking Lever

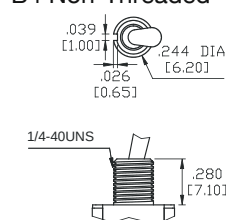


Bushing Options

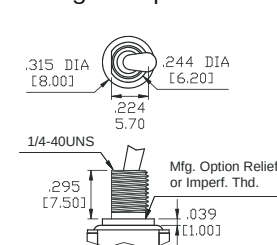
B1 Threaded B2 Non-Threaded



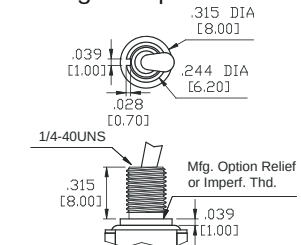
B3 Threaded B4 Non-Threaded



B5 High Torque



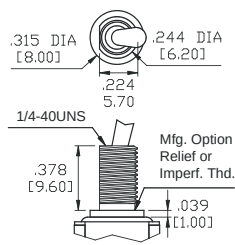
B6 High Torque



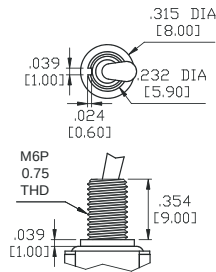
2M1-Series Dimensional Specifications: in. [mm]

Bushing Options

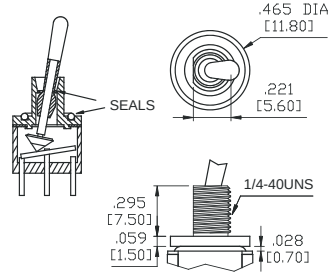
B7 Long



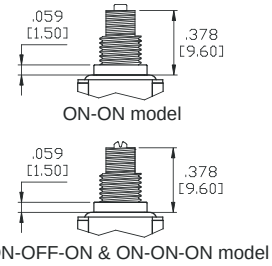
B8 Metric



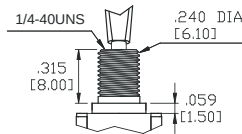
B9 Splash-Proof



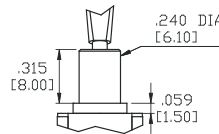
BL Locking Lever



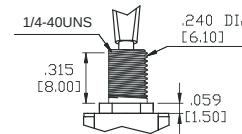
BA Threaded for T6



BB Non-Threaded for T6

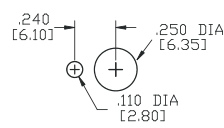
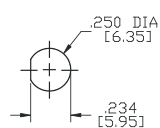
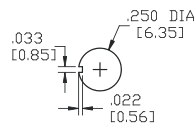


BB High Torque for T6

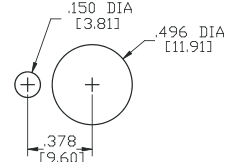
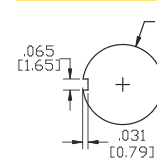


Panel Mounting

1/4 INCH BUSHING

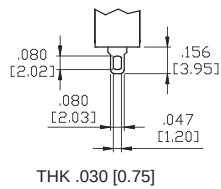


15/32 INCH BUSHING

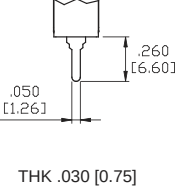


Termination Options

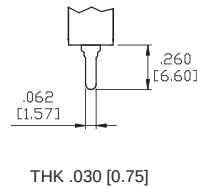
M1 Standard Solder Lug



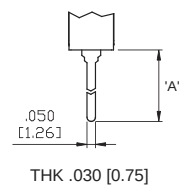
M2 PC Thru-Hole



M3 Quick Connect

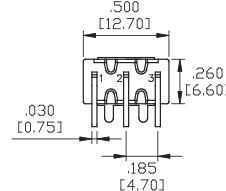
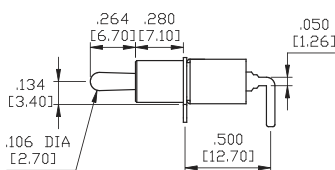
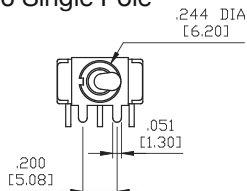


M5 Wire Wrap

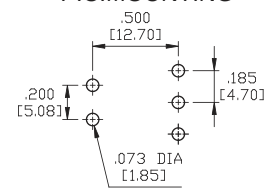


OPTION CODE	DIM.'A'
M5-1	.750 [19.05]
M5-2	.964 [24.48]
M5-3	.425 [10.80]
M5-4	1.062 [26.97]

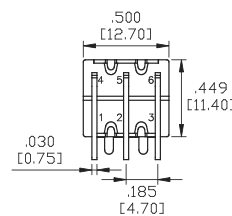
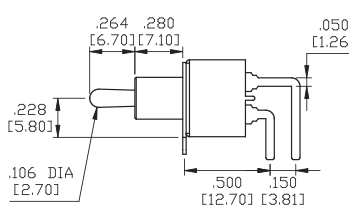
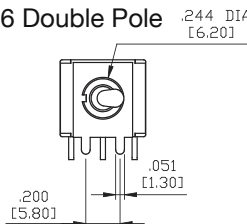
M6 Single Pole



P.C.MOUNTING



M6 Double Pole



P.C.MOUNTING

