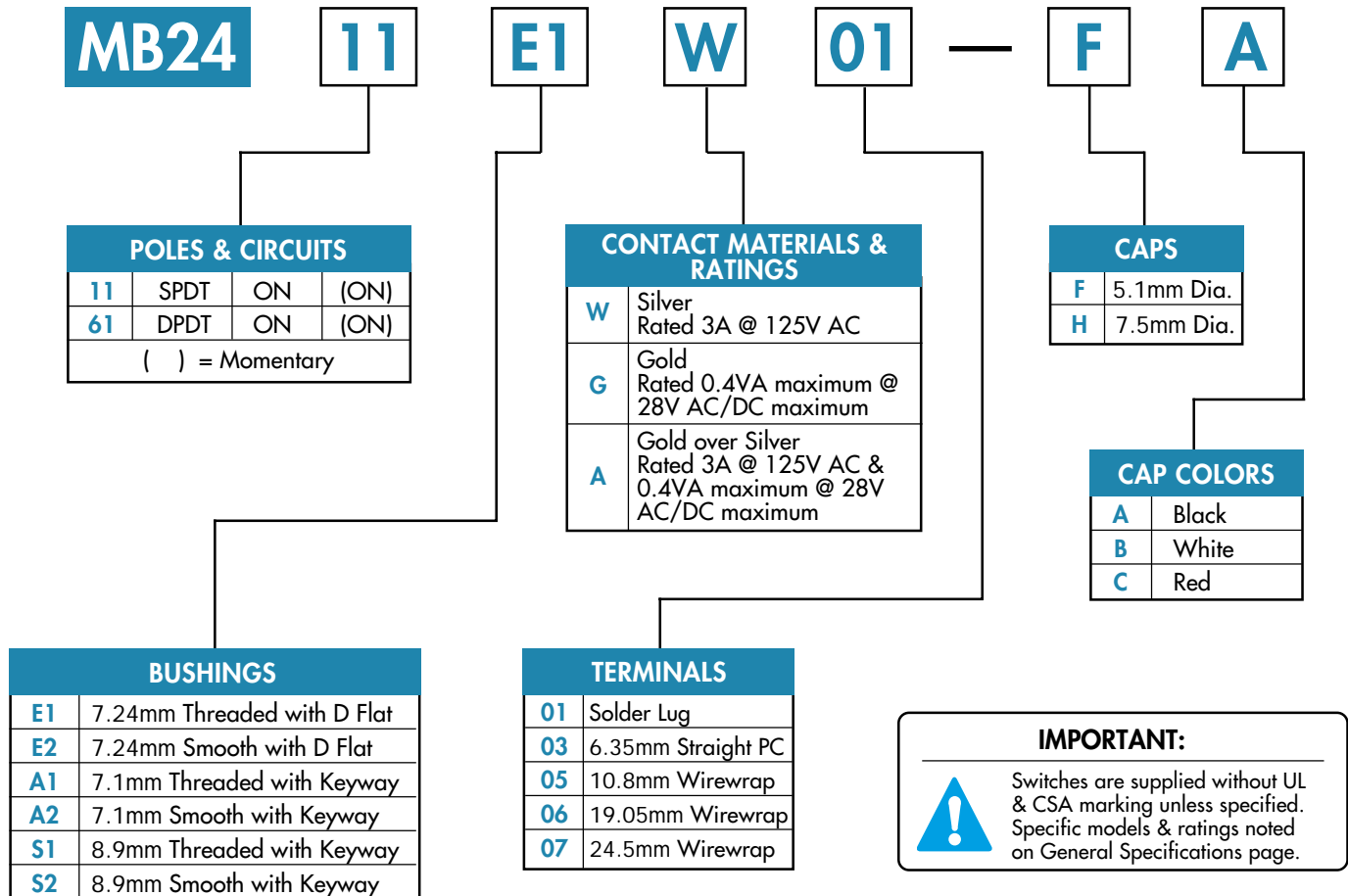




# Series MB2400

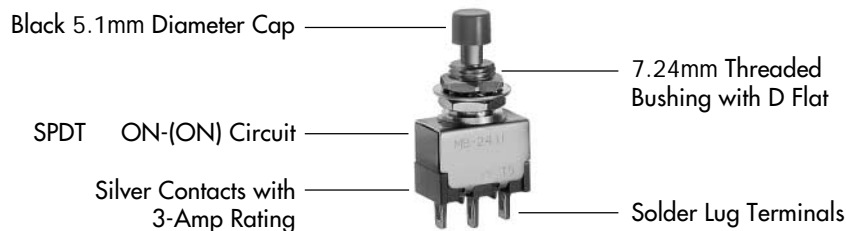
Momentary Snap-Action Miniature Pushbutton Switches

## TYPICAL SWITCH ORDERING EXAMPLE



### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

**MB2411E1W01-FA**





# Series MB2400

Momentary Snap-Action Miniature Pushbutton Switches

## GENERAL SPECIFICATIONS

### Electrical Capacity (Resistive Load)

<b>Power Level (code W):</b>	3A @ 125V AC
<b>Logic Level (code G):</b>	0.4VA maximum @ 28V AC/DC maximum
<b>Power/Logic Level (code A):</b>	Combines W & G ratings

Note: See [Supplement Index](#) to find explanation of dual rating & operating range.

### Other Ratings

<b>Contact Resistance:</b>	20 milliohms maximum for silver; 30 milliohms maximum for gold
<b>Insulation Resistance:</b>	1,000 megohms minimum @ 500V DC
<b>Dielectric Strength:</b>	1,000V AC minimum between contacts; 1,500V AC minimum between contacts & case
<b>Mechanical Life:</b>	200,000 operations minimum
<b>Electrical Life:</b>	25,000 operations minimum for silver; 100,000 operations minimum for gold
<b>Nominal Operating Force:</b>	Single pole 250 grams; double pole 400 grams
<b>Travel:</b>	0.6mm (.024") pretravel; 0.4mm (.016") overtravel; 1.0mm (.039") total travel

### Materials & Finishes

<b>Plunger:</b>	Brass with nickel plating
<b>Bushing:</b>	Brass with nickel plating
<b>O-ring:</b>	Nitrile butadiene rubber
<b>Frame:</b>	Stainless steel
<b>Case:</b>	Glassfiber reinforced polyester (PBT)
<b>Base:</b>	Diallyl phthalate resin
<b>Movable Contactor:</b>	Phosphor bronze with silver or gold plating
<b>Movable Contacts:</b>	Silver alloy (code W); copper with gold plating over nickel plating (code G); or silver alloy with gold plating over nickel plating (code A)
<b>Stationary Contacts:</b>	Silver with silver plating (code W); copper or brass with gold plating over nickel plating (code G); or silver with gold plating over nickel plating (code A)
<b>Terminals:</b>	Copper or brass with silver plating; copper or brass with gold plating over nickel plating

### Applicable Environment

<b>Operating Temp Range:</b>	-30°C through +85°C (-22°F through +185°F)
<b>Humidity:</b>	90 ~ 95% humidity for 96 hours @ 40°C (104°F)
<b>Vibration:</b>	10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning in 1 minute; 3 right angled directions for 2 hours
<b>Shock:</b>	50g acceleration (tested in 6 right angled directions, with 3 shocks in each direction)
<b>Sealing:</b>	Dustproof bushing

### Installation

<b>Mounting Torque:</b>	15kgf/cm (13lb/in) for double nut; 7kgf/cm (6lb/in) for single nut
<b>Cap Installation Force:</b>	8.16 kg (18 lbs) maximum permissible
<b>Soldering Time &amp; Temperature:</b>	3 seconds @ 350°C or 5 seconds @ 270°C
<b>Process Seal:</b>	Not available

### Standards & Certifications

<b>Flammability Standards:</b>	UL94V-0 available
<b>UL Recognized:</b>	All single & double pole models recognized at 3A @ 125V AC or 0.4VA maximum @ 28V AC/DC maximum; UL File No. E44145
<b>CSA Certified:</b>	Single pole models with PC, solder lug, or Wirewrap terminals & double pole models with PC or Wirewrap terminals certified at 3A @ 125V AC or 0.4VA maximum @ 28V AC/DC maximum; CSA File No. LR23535



# Series MB2400

Momentary Snap-Action Miniature Pushbutton Switches

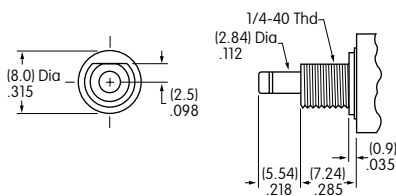
## POLES & CIRCUITS

Pole	Model	Plunger Position ( ) = Momentary		Connected Terminals		Throw & Schematics
		Normal	Down	Normal	Down	
						Note: Terminal numbers are not actually on the switch.
SP	<b>MB2411</b>	ON	(ON)	1-3	1-2	SPDT
DP	<b>MB2461</b>	ON	(ON)	1-3 4-6	1-2 4-5	DPDT

## BUSHINGS

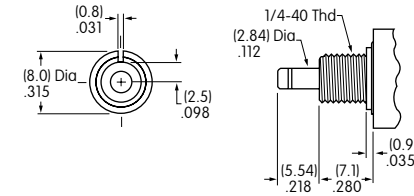
Note: Plunger selection is not required for MB2400 pushbuttons. The plunger can be used with or without a cap.

### E1 7.24mm Threaded with D Flat



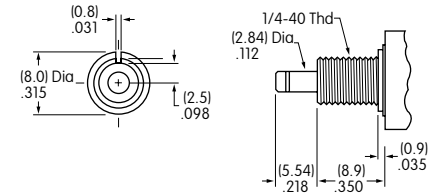
Max. panel thickness with standard hardware: 1.74mm (.068")

### A1 7.1mm Threaded with Keyway



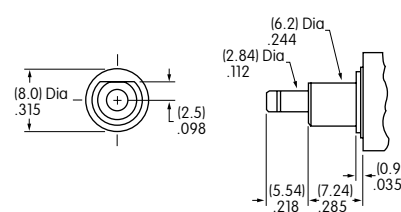
Max. panel thickness with standard hardware: 1.74mm (.068")

### S1 8.9mm Threaded with Keyway

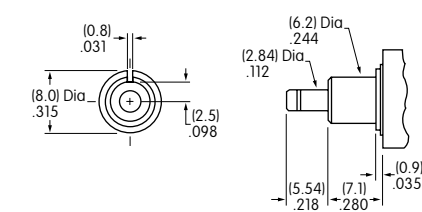


Max. panel thickness with standard hardware: 3.40mm (.134")

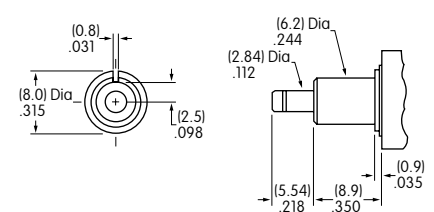
### E2 7.24mm Smooth with D Flat



### A2 7.1mm Smooth with Keyway

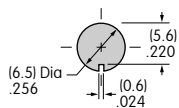


### S2 8.9mm Smooth with Keyway

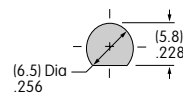


## Panel Cutouts

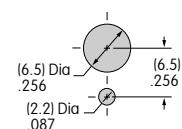
For A1, A2, S1, or S2 Bushing with Keyway



For E1 or E2 Bushing with D Flat



With Optional Locking Ring



Standard hardware includes 2 hex nuts and 1 lockwasher.  
Hardware is illustrated following the [Typical Switch Dimension drawings](#).



# Series MB2400

Momentary Snap-Action Miniature Pushbutton Switches

## CONTACT MATERIALS & RATINGS

**W** Silver over Silver

Power Level

3A @ 125V AC

**G** Gold over Brass or Copper

Logic Level

0.4VA maximum @ 28V AC/DC maximum

Note: See [Supplement Index](#) to find complete explanation of operating range.

**A** Gold over Silver

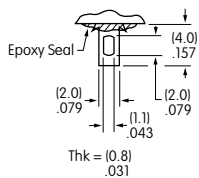
Power Level  
or Logic Level

3A @ 125V AC  
or 0.4VA maximum @ 28V AC/DC maximum

Note: This dual rated option is suitable when two or more identical switches are used in logic and in power circuits within the same application. See [Supplement Index](#) to find complete explanation of dual rating and operating range.

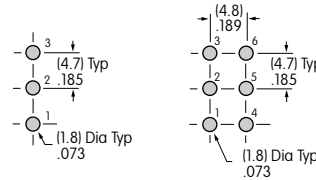
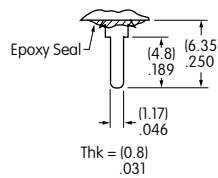
## TERMINALS

**01** Solder Lug



The 1.1mm x 2mm oblong hole accommodates  
1 solid 18-gauge wire  
or  
2 solid or stranded 20-gauge wires.

**03** 6.35mm Straight PC



Single Pole

Double Pole

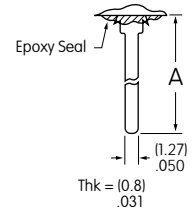
**05** 10.8mm/.425" Wirewrap or Extended PC

**06** 19.05mm/.750" Wirewrap or Extended PC

**07** 24.5mm/.964" Wirewrap or Extended PC

If using as extended PC terminal, refer to the footprints at left.

Dimension A = terminal lengths as shown beside code boxes.

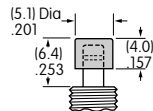


## CAPS & CAP COLORS

**F** AT475  
5.1mm Diameter Cap

Material: Polycarbonate

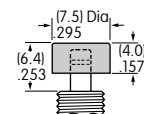
Finish: Glossy



**H** AT496  
7.5mm Diameter Cap

Material: Polycarbonate

Finish: Glossy



Colors Available:

**A** Black

**B** White

**C** Red



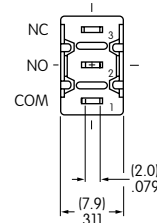
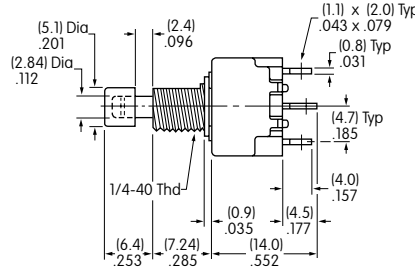
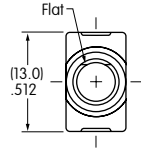
# Series MB2400

Momentary Snap-Action Miniature Pushbutton Switches

## TYPICAL SWITCH DIMENSIONS



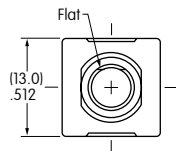
MB2411E1W01-FA



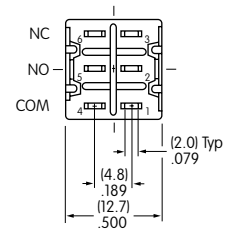
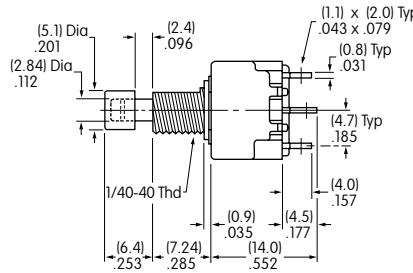
### Solder Lug



MB2461E1W01-FA



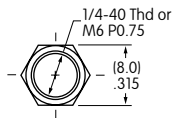
### Double Pole



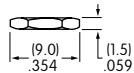
## HARDWARE

### Standard Hardware

**AT513H Inch Threaded Hex Nut**  
2 included with each switch

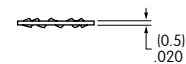
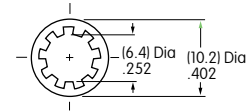


Brass, nickel plated



**AT509 Lockwasher**  
1 included with each switch

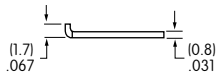
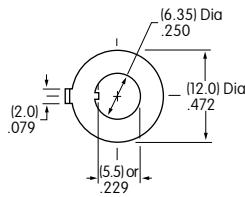
Steel, chromate over zinc plating



### Optional Hardware

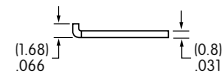
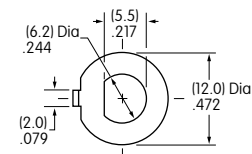
**AT507H Locking Ring for A1 or S1 Bushing**

Steel, chromate over zinc plating



**AT515 Locking Ring for E1 Bushing**

Steel, chromate over zinc plating



### Decorative Hardware

Dimensioned illustrations of this hardware are in the [Accessories & Hardware](#) section.

AT512 Conical Nut



AT532 Dress Nut



AT533 Dress Nut



AT501 Knurled Face Nut

