

### TYPICAL SWITCH ORDERING EXAMPLE

**MB24**

**11**

**A2**

**G**

**40**

**F**

**A**

#### Poles & Circuits

|    |      |    |      |
|----|------|----|------|
| 11 | SPDT | ON | (ON) |
| 61 | DPDT | ON | (ON) |

( ) = Momentary

#### Contact Materials & Ratings

|   |                                                                          |
|---|--------------------------------------------------------------------------|
| W | Silver<br>Rated 3A @ 125V AC                                             |
| G | Gold<br>Rated 0.4VA max @<br>28V AC/DC max                               |
| A | Gold over Silver<br>Rated 3A @ 125V AC<br>& 0.4VA max @ 28V<br>AC/DC max |

#### Caps

|   |                    |
|---|--------------------|
| F | .201" (5.1mm) Dia. |
| H | .295" (7.5mm) Dia. |

#### Cap Colors

|   |       |
|---|-------|
| A | Black |
| B | White |
| C | Red   |

#### Bushings

|    |                                        |
|----|----------------------------------------|
| A2 | .280" (7.1mm)<br>Smooth with Keyway    |
| A1 | .280" (7.1mm)<br>Threaded with Keyway  |
| E2 | .285" (7.24mm)<br>Smooth with D Flat   |
| E1 | .285" (7.24mm)<br>Threaded with D Flat |
| S2 | .350" (8.9mm)<br>Smooth with Keyway    |
| S1 | .350" (8.9mm)<br>Threaded with Keyway  |

#### Terminals

##### With Bracket

|    |                                                         |
|----|---------------------------------------------------------|
| 13 | .250" (6.35mm) Straight PC with .465" (11.8mm) Bracket  |
| 15 | .425" (10.8mm) Straight PC with .630" (16.0mm) Bracket  |
| 17 | .964" (24.5mm) Straight PC with 1.150" (29.2mm) Bracket |

##### With Reinforced Bracket

|    |                                                         |
|----|---------------------------------------------------------|
| 23 | .250" (6.35mm) Straight PC with .465" (11.8mm) Bracket  |
| 25 | .425" (10.8mm) Straight PC with .630" (16.0mm) Bracket  |
| 26 | .750" (19.05mm) Straight PC with .953" (24.2mm) Bracket |

##### With Terminal Support

|    |                |
|----|----------------|
| 30 | Right Angle PC |
| 40 | Vertical PC    |

#### IMPORTANT:



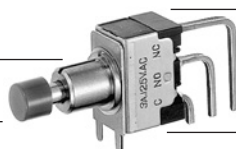
Switches are supplied without UL, cULus & CSA marking unless specified. **UL, cULus & CSA recognized only when ordered with marking on the switch.**

Specific models, ratings, & ordering instructions are noted on General Specifications page.

### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

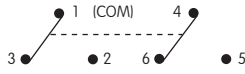
**MB2411A2G40-FA**

.280" (7.1mm) Smooth Bushing  
with Keyway  
Black .201" (5.1mm)  
Diameter Cap



SPDT  
ON-(ON) Circuit  
Vertical PC Terminals  
Gold Contacts with  
0.4VA Rating

## POLES & CIRCUITS

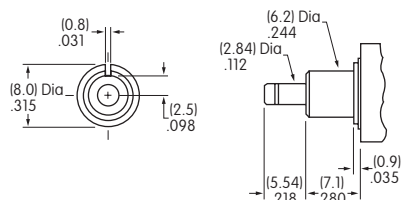
| Pole | Model   | Plunger Position<br>( ) = Momentary                                                         |                                                                                           | Connected Terminals                                                                         |                                                                                           | Throw & Switch Schematics                                                                   |
|------|---------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
|      |         | Normal<br> | Down<br> | Normal<br> | Down<br> |                                                                                             |
| SP   | *MB2411 | ON                                                                                          | (ON)                                                                                      | 1-3                                                                                         | 1-2                                                                                       | SPDT<br> |
| DP   | MB2461  | ON                                                                                          | (ON)                                                                                      | 1-3 4-6                                                                                     | 1-2 4-5                                                                                   | DPDT<br> |

Note: Terminal numbers are not actually on the switch.  
\* When using terminal code 32, connected terminals and schematic are reversed.

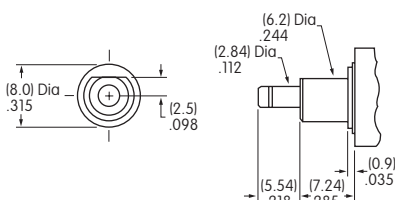
## BUSHINGS

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

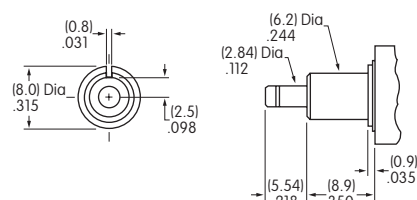
### A2 .280" (7.1mm) Smooth with Keyway



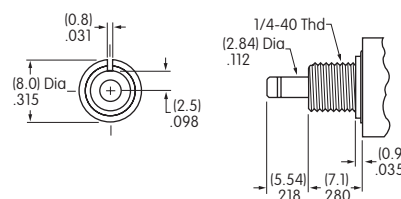
### E2 .285" (7.24mm) Smooth with D Flat



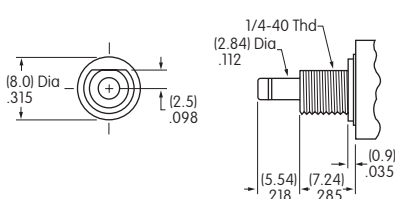
### S2 .350" (8.9mm) Smooth with Keyway



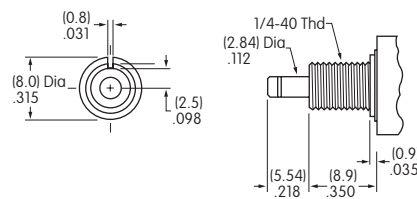
### A1 .280" (7.1mm) Threaded with Keyway



### E1 .285" (7.24mm) Threaded with D Flat



### S1 .350" (8.9mm) Threaded with Keyway



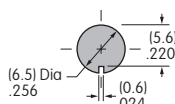
Maximum Panel Thickness with  
Standard Hardware: .068" (1.74mm)

Maximum Panel Thickness with  
Standard Hardware: .068" (1.74mm)

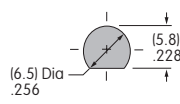
Maximum Panel Thickness with  
Standard Hardware: .134" (3.40mm)

## Panel Cutouts

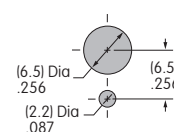
For A1, A2, S1, or S2 Bushing  
with Keyway



For E1 or E2 Bushing  
with D Flat



With  
Optional Locking Ring



Standard hardware includes 2 hex nuts & 1 lockwasher.  
Hardware is illustrated following the Typical Switch Dimension drawings.

### 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: Complete explanation of operating range in Supplement section.

**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 section for complete explanation of dual rating and operating range.

### TERMINALS

#### Straight PC Mount with Bracket

**13**

**.250" (6.35mm)  
Terminal with  
.465" (11.8mm)  
Bracket**

**15**

**.425" (10.8mm)  
Terminal with  
.630" (16.0mm)  
Bracket**

**17**

**.964" (24.5mm)  
Terminal with  
1.150" (29.2mm)  
Bracket**

**23**

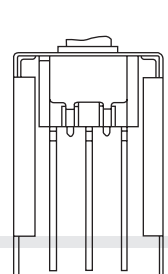
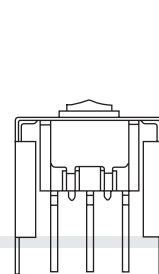
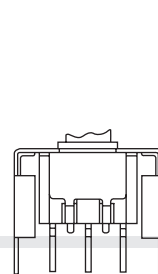
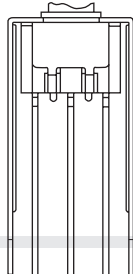
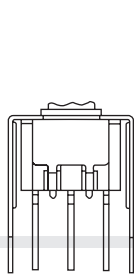
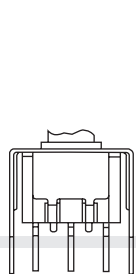
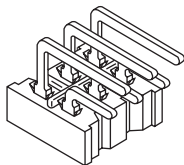
**.250" (6.35mm)  
Terminal with  
.465" (11.8mm)  
Bracket**

**25**

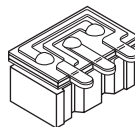
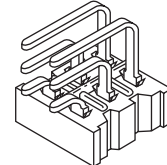
**.425" (10.8mm)  
Terminal with  
.630" (16.0mm)  
Bracket**

**26**

**.750" (19.05mm)  
Terminal with  
.953" (24.2mm)  
Bracket**


**30**
**Right Angle PC**

**32**

**Right Angle PCB with Reverse Circuit**  
Available only in single pole with  
0.4VA rating (code G)


**40**
**Vertical PC**


PCB footprints are on the following Typical Switch Dimension pages.

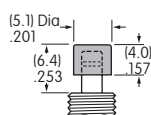
### CAPS & CAP COLORS

**F**

**AT475  
.201" (5.1mm)  
Diameter Cap**

Material: Polyamide

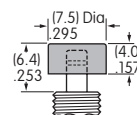
Finish: Glossy


**H**

**AT496  
.295" (7.5mm)  
Diameter Cap**

Material: Polyamide

Finish: Glossy

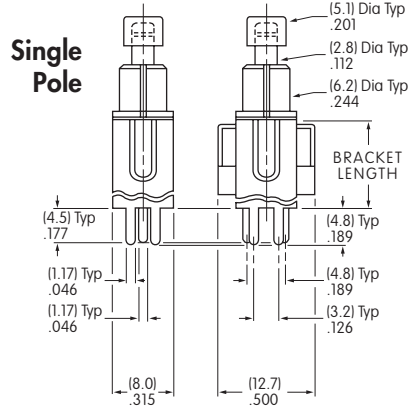
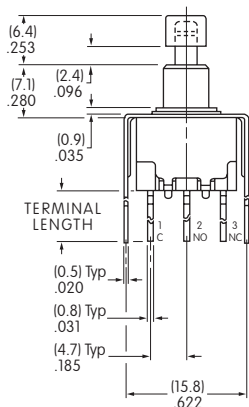


**Cap Colors  
Available:**

**A**
**Black**
**B**
**White**
**C**
**Red**

## TYPICAL SWITCH DIMENSIONS

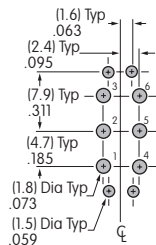
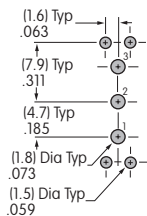
### Straight PC • Bracket



Double Pole



MB2411A2G13-FA



| Terminal Code: | Terminal Length: | Bracket Length: |
|----------------|------------------|-----------------|
| 13             | .250 (6.35mm)    | .465 (11.8mm)   |
| 15             | .425 (10.8mm)    | .630 (16.0mm)   |
| 17             | .964 (24.5mm)    | 1.150 (29.2mm)  |

Toggles

Rockers

Pushbuttons

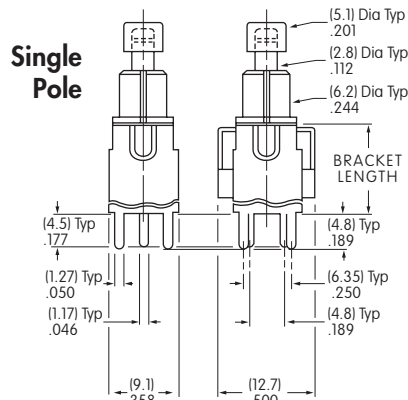
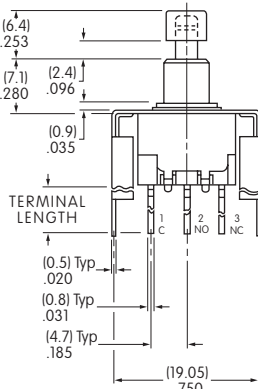
Illuminated PB

Programmable

Keylocks

Rotaries

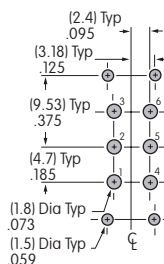
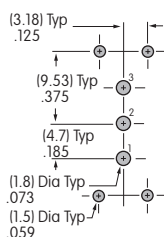
### Straight PC • Reinforced Bracket



Double Pole



MB2411A2G23-FA



| Terminal Code: | Terminal Length: | Bracket Length: |
|----------------|------------------|-----------------|
| 23             | .250 (6.35mm)    | .465 (11.8mm)   |
| 25             | .425 (10.8mm)    | .630 (16.0mm)   |
| 26             | .750 (19.05mm)   | .953 (24.2mm)   |

Slides

Tactiles

Tilt

Touch

Indicators

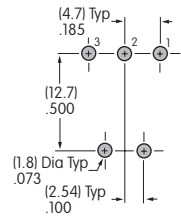
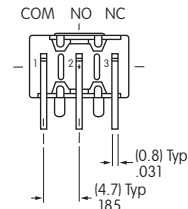
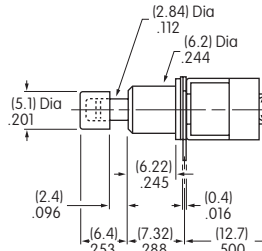
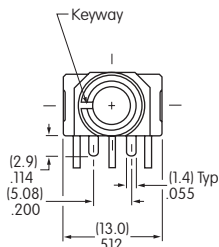
Accessories

Supplement

### TYPICAL SWITCH DIMENSIONS

#### Right Angle PC

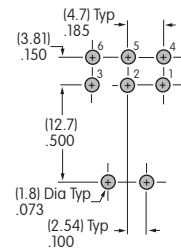
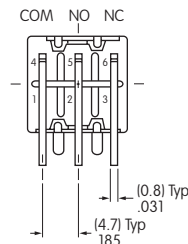
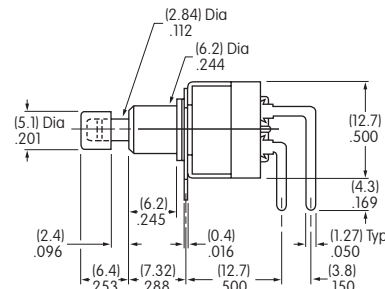
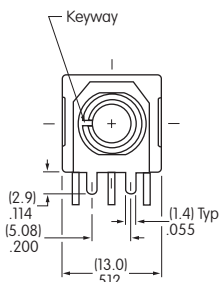
#### Single Pole



MB2411A2G30-FA

#### Right Angle PC

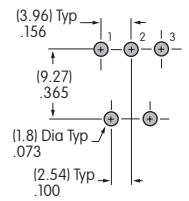
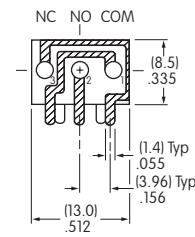
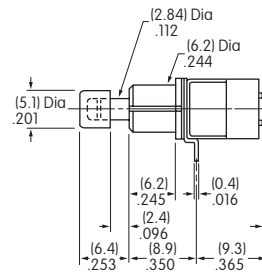
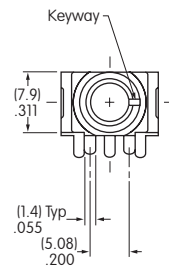
#### Double Pole



MB2461A2G30-FA

#### Right Angle PCB

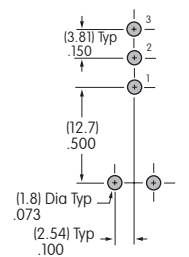
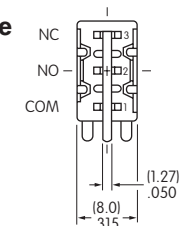
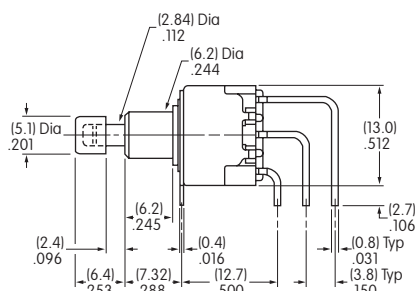
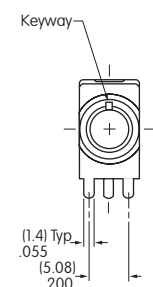
#### Single Pole • Reverse Circuit



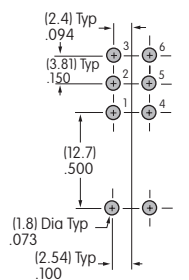
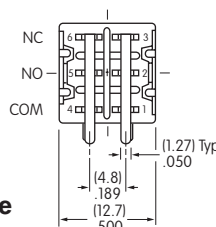
MB2411A2G32-FA

#### Vertical PC

#### Single Pole



#### Double Pole



MB2411A2G40-FA

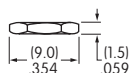
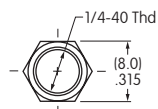
## HARDWARE

### Standard Hardware

#### AT513H Inch Threaded Hexagon Nut

2 included with each switch

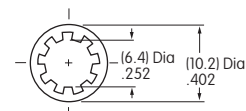
Material:  
Brass with Nickel Plating



#### AT509 Lockwasher

1 included with each switch

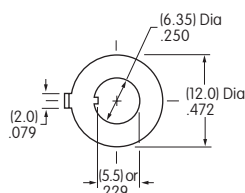
Material:  
Steel with Zinc/Chromate



### Optional Hardware

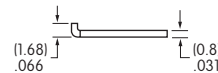
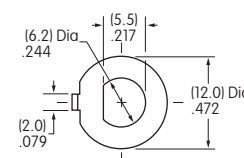
#### AT507H Locking Ring for A1 or S1 Bushing

Material:  
Steel with Zinc/Chromate



#### AT515 Locking Ring for E1 Bushing

Material:  
Steel with Zinc/Chromate



Toggles

Rockers

Pushbuttons

ILLUMINATED PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt

Touch

Indicators

Accessories

Supplement