

# General

Toggles

Rockers

Pushbuttons

Illuminated PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt

Touch

Indicators

Accessories

Supplement

**Power Level (silver):** 1A @ 125V AC or 1A @ 30V DC  
**Logic Level (gold):** 0.4VA maximum @ 28V AC/DC maximum  
 (Applicable Range 0.1mA ~ 0.1A @ 20mV ~ 28V)  
**Logic/Power Level:** Combines silver & gold ratings  
 (gold over silver)

Note: Find additional explanation of dual rating & operating range in Supplement section.

**Contact Resistance:** 20 milliohms maximum for silver; 30 milliohms maximum for gold  
**Insulation Resistance:** 1,000 megohms minimum @ 500V DC  
**Dielectric Strength:** 1,000V AC minimum between contacts for 1 minute minimum;  
 1,500V AC minimum between contacts & case for 1 minute minimum  
**Mechanical Life:** 200,000 operations minimum  
**Electrical Life:** 25,000 operations minimum for silver; 100,000 operations minimum for gold  
**Nominal Operating Force:** Single pole 2.94N & double pole 4.90N  
**Contact Timing:** Nonshorting (break-before-make)  
**Travel:** Pretravel .023" (0.6mm); Overtravel .016" (0.4mm); Total Travel .039" (1.0mm)

**Plunger:** Brass with nickel plating  
**Support Bracket:** Brass with tin plating  
**Bushing/Housing:** Glass fiber reinforced polyamide (UL94V-0)  
**Sealing Ring:** Nitrile butadiene rubber  
**Base:** Glass fiber reinforced polyamide (UL94V-0)  
**Movable Contacts:** Silver alloy with silver plating (code W); copper with gold plating (code G);  
 or silver alloy with gold plating (code A)  
**Stationary Contacts:** Silver alloy with silver plating (code W); copper with gold plating (code G);  
 or silver alloy with gold plating (code A)  
**Terminals:** Brass with silver or gold plating

**Operating Temp Range:** -30°C through +85°C (-22°F through +185°F)  
**Humidity:** 90 ~ 95% humidity for 96 hours @ 40°C (104°F)  
**Vibration:** 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  
**Shock:** 50G (490m/s<sup>2</sup>) acceleration (tested in 6 right angled directions, with 5 shocks in each direction)

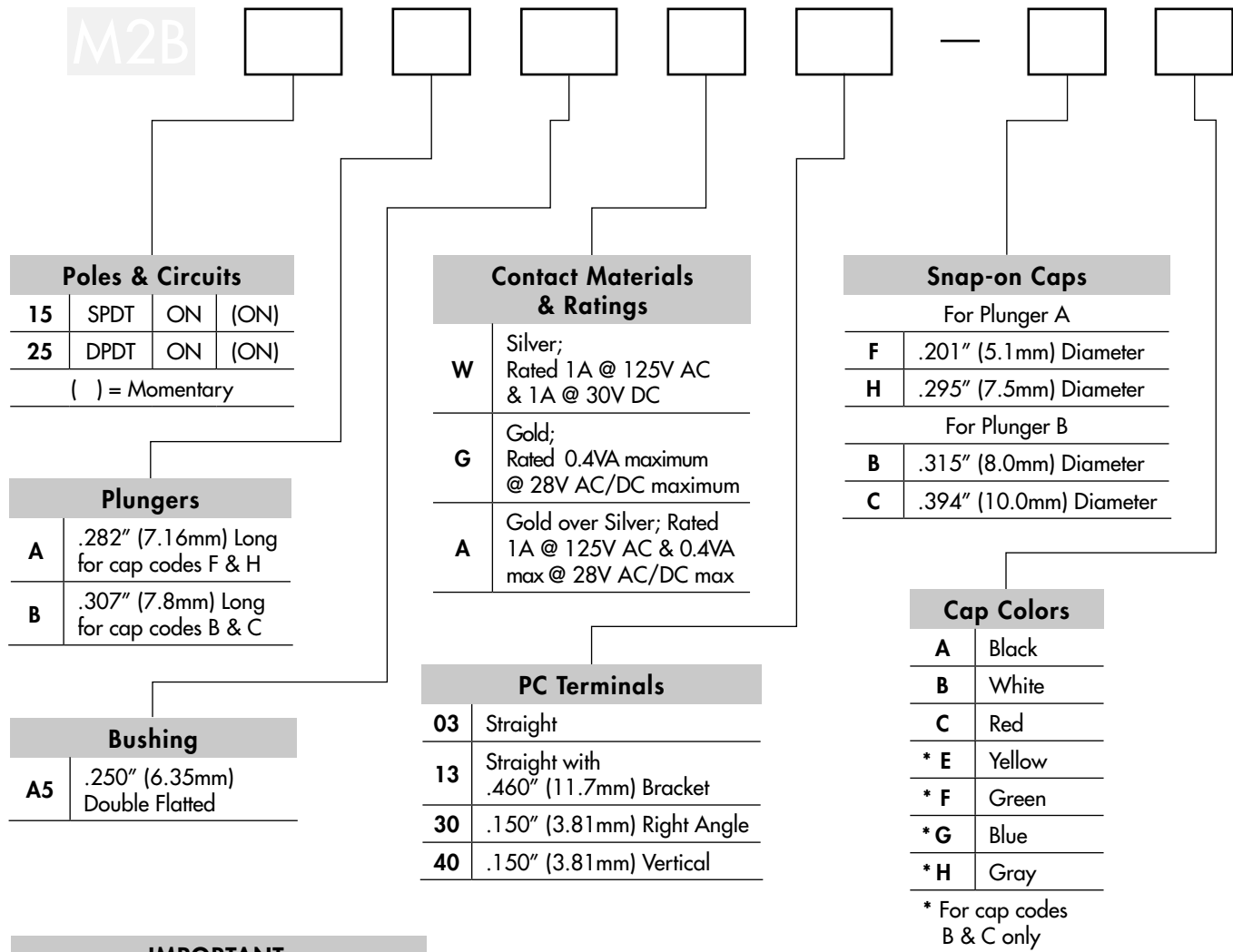
**Cap Installation Force:** 49.0N (11.0 lbf) for plunger A & 79.4N (17.9 lbf) for plunger B

**Soldering:** Wave Soldering Recommended: See Profile B in Supplement section.  
 Manual Soldering: See Profile B in Supplement section.  
**Cleaning:** Automated cleaning. See Cleaning specifications in Supplement section.

**Flammability Standards:** UL94V-0 rated bushing/housing & base  
**UL:** **File No. E44145 - Recognized only when ordered with marking on switch.**  
 Add "/U" or "/CUL" before dash in part number to order UL recognized switch.  
 All models recognized at 1A @ 125V AC, 1A @ 30V DC, or 0.4A @ 28V DC.  
**CSA:** **File No. 023535\_0\_000 - Certified only when ordered with marking on switch.**  
 Add "/C" before dash in part number to order CSA certified switch.  
 All models certified at 1A @ 125V AC, 1A @ 30V DC, or 0.4A @ 28V DC.



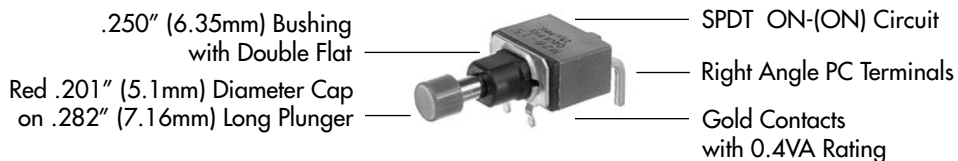
## TYPICAL SWITCH ORDERING EXAMPLE



### 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.






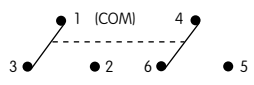
### DESCRIPTION FOR TYPICAL ORDERING EXAMPLE




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# Process Sealed Miniature Pushbuttons

## POLES & CIRCUITS

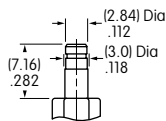
Pole	Model	Plunger Position ( ) = Momentary		Connected Terminals		Throw & Schematics
		Normal	Down	Normal	Down	
						Note: Terminal numbers are not actually on the switch.
SP	M2B15	ON	(ON)	1-3	1-2	SPDT 
DP	M2B25	ON	(ON)	1-3 4-6	1-2 4-5	DPDT 


## PLUNGERS

 .282" (7.16mm) Long

For cap codes F & H

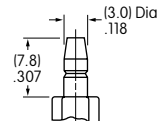
Material:  
Chrome over brass



 .307" (7.8mm) Long

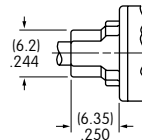
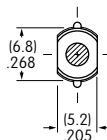
For cap codes B & C

Material:  
Chrome over brass



## BUSHING

 .250" (6.35mm) Double Flatted



## CONTACT MATERIALS & RATINGS

 Silver over Silver      Power Level      1A @ 125V AC & 1A @ 30V DC

 Gold over Brass or Copper      Logic Level      0.4VA maximum @ 28V AC/DC maximum

Complete explanation of operating range in Supplement section.


 Gold over Silver      Power Level or Logic Level      1A @ 125V AC or 0.4VA maximum @ 28V AC/DC maximum

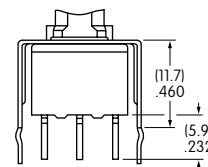
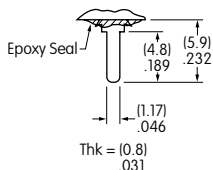
Note: This dual rated option is suitable when two or more identical switches are used in logic and in power circuits within the same application. See Supplement section for complete explanation of dual rating and operating range.

# Process Sealed Miniature Pushbuttons


## PC TERMINALS

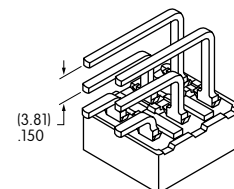
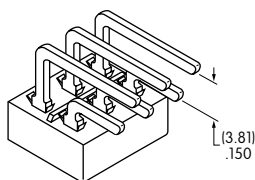
 **Straight**

 **Straight with  
.460" (11.7mm) Bracket**




 **.150" (3.81mm) Right Angle**

 **.150" (3.81mm) Vertical**



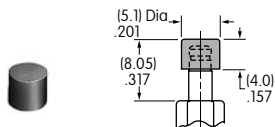
## SNAP-ON CAPS


### For Plunger Type A

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

Material: Polyamide

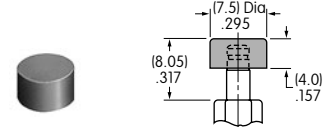
Colors Available:  
A, B, C




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

Material: Polyamide

Colors Available:  
A, B, C

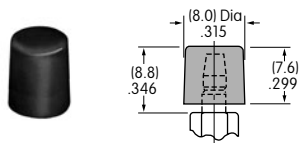



### For Plunger Type B

 **AT443  
.315" (8.0mm) Diameter**

Material: Polycarbonate

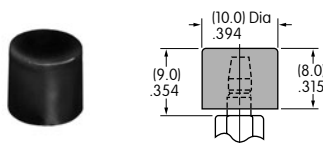
Colors Available:  
A, B, C, E, F, G, H



 **AT442  
.394" (10.0mm) Diameter**

Material: Polycarbonate

Colors Available:  
A, B, C, E, F, G, H



**Cap Colors  
Codes:**



Black



White



Red



Yellow



Green



Blue

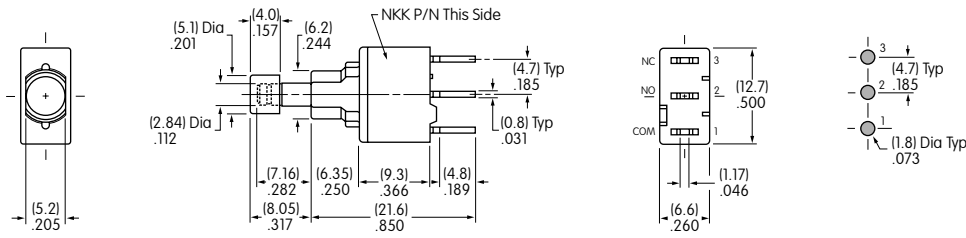


Gray

# Process Sealed Miniature Pushbuttons

## TYPICAL SWITCH DIMENSIONS

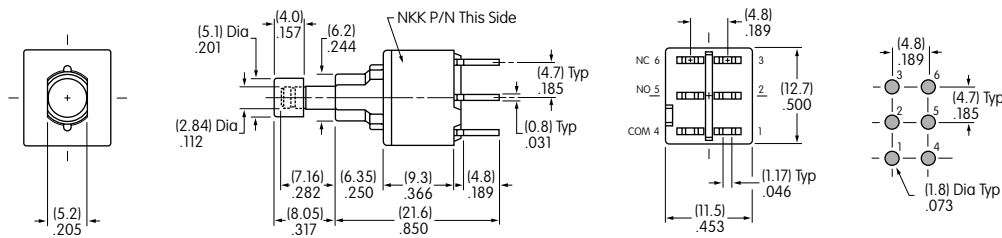
### Single Pole



### Straight PC



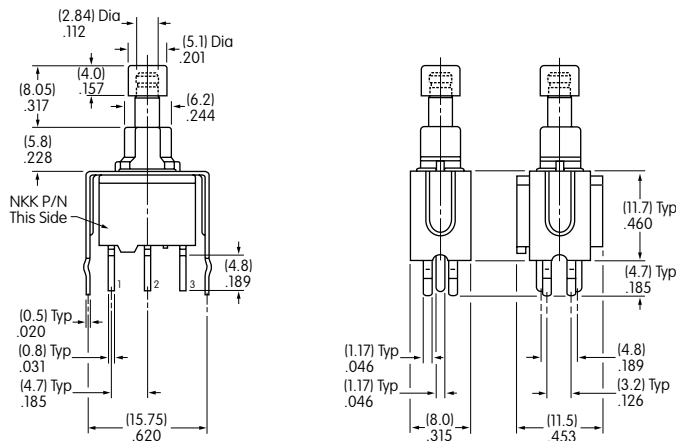
### Double Pole



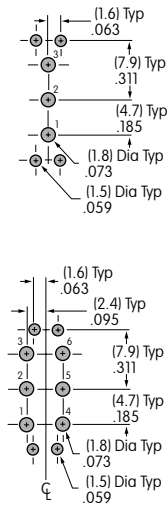
### Straight PC



### Single & Double Pole



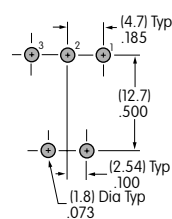
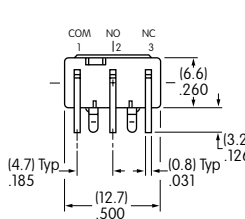
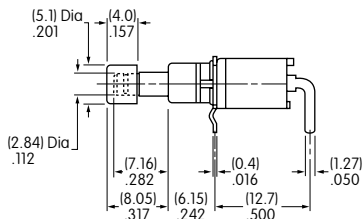
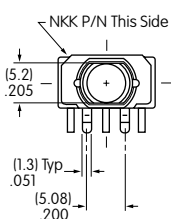
### Straight PC • Bracket



## TYPICAL SWITCH DIMENSIONS

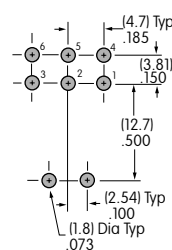
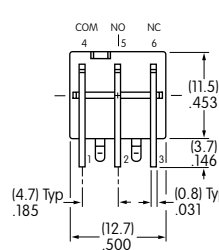
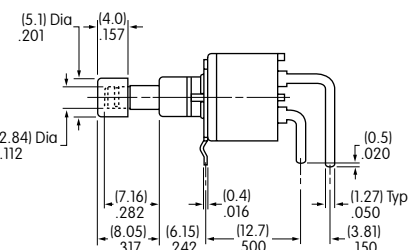
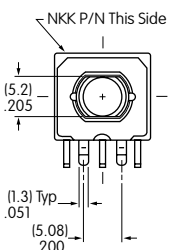
### Right Angle PC

### Single Pole



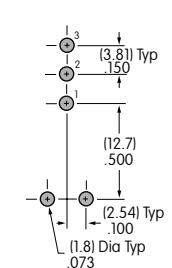
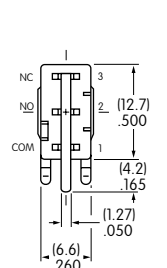
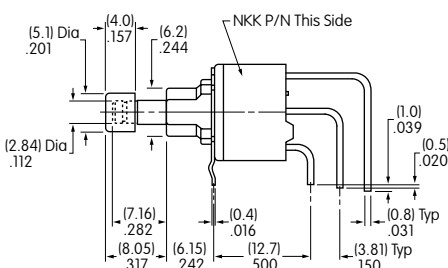
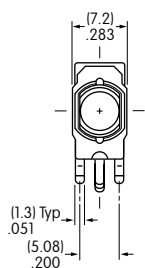
### Right Angle PC

### Double Pole



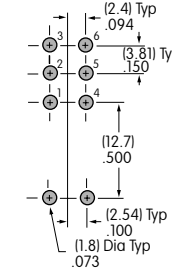
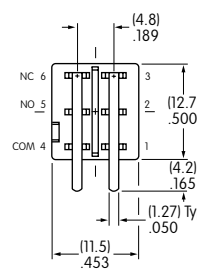
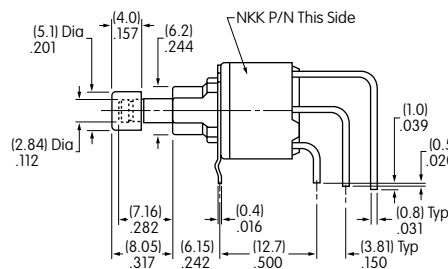
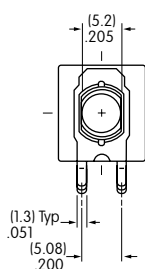
### Vertical PC

### Single Pole



### Vertical PC

### Double Pole



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