



A

Pushbutton

# 8060 Series

## Alternate Action and Momentary Pushbutton Switches



### Features/Benefits

- Long travel
- Available with LED
- Long life contact design
- Epoxy terminal seal compatible with bottom wash cleaning
- RoHS compliant models available

### Typical Applications

- Instrumentation
- Computers and peripherals
- Telecommunications and networking equipment



Models Available

### Specifications

CONTACT RATING: Q contact material: 6 AMPS @ 120 V AC or 28 V DC; 3 AMPS @ 250 V AC. See page A-59 for additional ratings.

ELECTRICAL LIFE: 50,000 make-and-break cycles at full load.

CONTACT RESISTANCE: Below 20 mΩ typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.

INSULATION RESISTANCE: 10<sup>9</sup>Ω min.

DIELECTRIC STRENGTH: 1,000 Vrms min. @ sea level.

OPERATING TEMPERATURE: -30°C to 65°C

SOLDERABILITY: Per MIL-STD-202F method 208D, or EIA RS-186E method 9 (1 hour steam aging).

CAP INSTALLATION FORCE: 10 lbs. maximum permissible.

**NOTE:** Any models supplied with P, R, S, Q, B or G contact material are RoHS compliant.

**NOTE:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

### Materials

CASE: Glass filled nylon 6/6 or diallyl phthalate (DAP), flame retardant (UL 94V-0).

PLUNGER: S, S1, S2 Options: Glass filled nylon or glass filled polyester (PBT) (UL 94V-0). L, L1 Options: Brass, nickel plated.

CAP & FRAME: Nylon, black standard.

BUSHING: Brass or zinc, nickel plated.

HOUSING: Stainless steel.

SWITCH SUPPORT: Brass or steel, matte-tin plated.

END CONTACTS: Q contact material: Coin silver, silver plated. See page A-59 for additional contact materials.

CENTER CONTACT & ALL TERMINALS: Q contact material: Copper alloy, silver plated. See page A-59 for additional contact materials.

TERMINAL SEAL: Epoxy. Refer to soldering and cleaning in Technical Data Chapter.

HARDWARE: Nut & Locking Ring: Brass, nickel plated; Lockwasher: Steel, nickel plated.

### Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages A-53 thru A-61. For additional options not shown in catalog, consult Customer Service Center. All models have epoxy terminal seal and are compatible with all "bottom-wash" PCB cleaning methods.



#### Switch Function

- 8161** SPDT On-On
- 8168** SPDT On-Mom.
- 8261** DPDT On-On

#### Actuator or Plunger

- S** .710" high plunger with .375" dia. cap
- J80** Snap-in
- J81** Snap-in with frame
- J82** Snap-in with frame for LED
- J86** Snap-in with frame & LED
- L** .740" high plunger with .395" dia. cap
- L1** .740" high plunger with .590" dia. cap
- S1** .615" high plunger with .200" dia. cap
- S2** .710" high plunger with .310" dia. cap

#### Bushing

- H** .300" high, flat, hi torque
- H9** .300" high, flat, hi torque
- NONE** No bushing choice required
- Y3** 7.6mm, keyway

#### Terminations

- A** Right angle, PC thru-hole
- AV2** Vertical right angle, PC thru-hole
- C** PC Thru-hole
- Z** Solder lug
- A3** Right angle, snap-in, PC thru-hole
- AV3** Vertical right angle, snap-in, PC thru-hole
- V3** .460" high, V-bracket
- V4** .630" high, V-bracket
- V6** .460" high, V-bracket
- V21** .555" high, snap-in V-bracket
- V31** .460" high, snap-in V-bracket
- W** .750" long, wire wrap
- Z3** Quick connect

#### Contact Material

- B** Gold
- P** Gold, matte-tin
- Q** Silver
- S** Silver, matte-tin
- G** Gold over silver
- R** Gold over silver, matte-tin

#### Seal

- E** Epoxy
- I** Epoxy potted base

#### Cap Color

- 2** Black
- 1** White
- 3** Red
- 4** Orange
- 5** Yellow
- 9** Gray

#### Frame Color

- 2** Black

#### LED Color

- 3** Red
- NONE** Models without LED



Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change

# 8060 Series Alternate Action and Momentary Pushbutton Switches



A

Pushbutton

## SWITCH FUNCTION

| NO. POLES                    | MODEL NO.                  | SWITCH FUNCTION       |        | CONNECTED TERMINALS |         | SCHEMATIC |  |
|------------------------------|----------------------------|-----------------------|--------|---------------------|---------|-----------|--|
|                              |                            | POS. 1                | POS. 2 | POS. 1              | POS. 2  |           |  |
|                              |                            |                       |        |                     |         |           |  |
|                              |                            | C&K marking this side |        |                     |         |           |  |
|                              |                            | C&K marking this side |        |                     |         |           |  |
| SP                           | <b>8161</b><br><b>8168</b> | ON                    | ON     | 2-3                 | 2-1     |           |  |
|                              |                            | ON                    | MOM.   | 2-3                 | 2-1     |           |  |
| <b>SPDT</b><br>              |                            |                       |        |                     |         |           |  |
| Part number shown: 8161SHZQE |                            |                       |        |                     |         |           |  |
| DP                           | <b>8261</b>                | ON                    | ON     | 2-3,5-6             | 2-1,5-4 |           |  |
|                              |                            | ON                    | ON     | 2-3,5-6             | 2-1,5-4 |           |  |
| <b>DPDT</b><br>              |                            |                       |        |                     |         |           |  |
| Part number shown: 8261SHZQE |                            |                       |        |                     |         |           |  |

MOM. = Momentary

All models with all options when ordered with G, L, M or Q contact material.

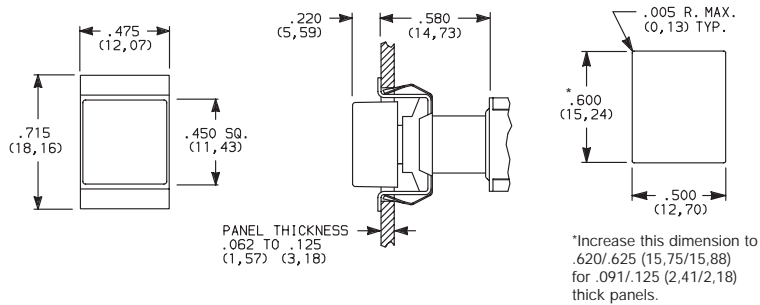
## ACTUATOR—SNAP-IN FRONT MOUNT

ACTUATOR OR PLUNGER

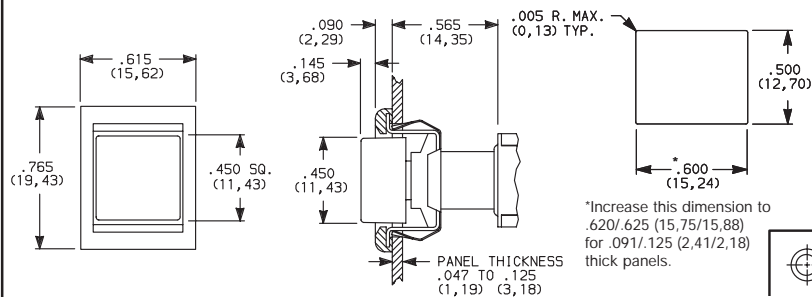
| OPTION CODE | CAP COLOR |
|-------------|-----------|
| <b>2</b>    | BLACK     |
| <b>1</b>    | WHITE     |
| <b>3</b>    | RED       |
| <b>4</b>    | ORANGE    |
| <b>5</b>    | YELLOW    |
| <b>9</b>    | GRAY      |

Cap Finish: matte.  
Other colors available, consult Customer Service Center.  
Available with C, W, Z or Z3 terminations.  
**NOTE:** Caps & frames available separately, see pages A-60 and A-61.

### J80 SNAP-IN



### J81 SNAP-IN WITH BLACK FRAME



Third Angle Projection

Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change



# 8060 Series Alternate Action and Momentary Pushbutton Switches

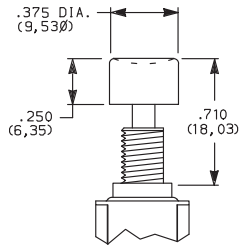


A

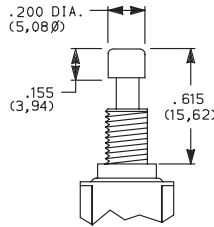
Pushbutton

## PLUNGER

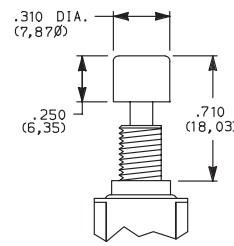
**S** PLUNGER WITH CAP P/N 7527



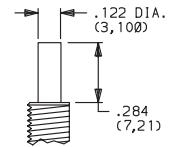
**S1** PLUNGER WITH CAP P/N 7089



**S2** PLUNGER WITH CAP P/N 8018

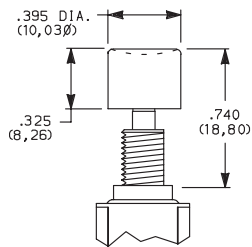


**S, S1, S2 plunger dimensions.**

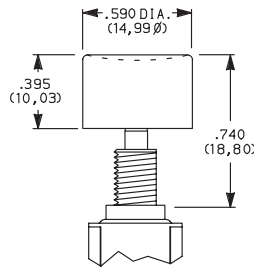


Plunger material: Glass filled nylon or glass filled polyester (UL 94V-0).

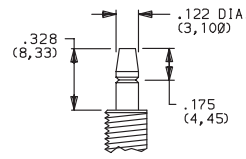
**L** PLUNGER WITH CAP P/N 8941



**L1** PLUNGER WITH CAP P/N 8940



**L, L1 plunger dimensions.**



Plunger Material: Brass, chrome plated.

| OPTION CODE | CAP COLOR |
|-------------|-----------|
| 2           | BLACK     |
| 1           | WHITE     |
| 3           | RED       |
| 4           | ORANGE    |
| 5           | YELLOW    |
| 9           | GRAY      |

Cap Finish: gloss. Cap supplied not installed. Other colors available, consult Customer Service Center.

**NOTE:** When selecting plunger and cap option, bushing selection must also be made, see below.

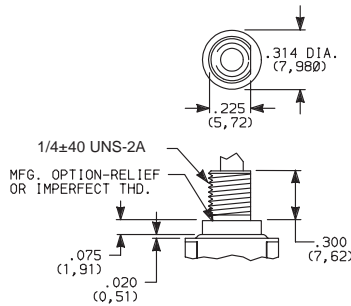
## BUSHING

**H** .300" HIGH THREADED, FLAT

**H9** .300" HIGH UNTHREADED, FLAT

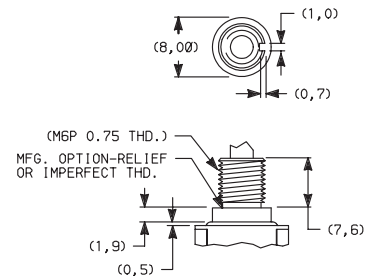
**NONE** NO BUSHING CHOICE REQUIRED (JXX ACTUATORS)

**Y3** 7.6mm THREADED, KEYWAY



H bushing standard with C, W, Z or Z3 terminations. H9 bushing standard with A, A3, AV2, AV3, or V3-V31 terminations.

Withstands 12 in./lbs. of torque with no distortion.

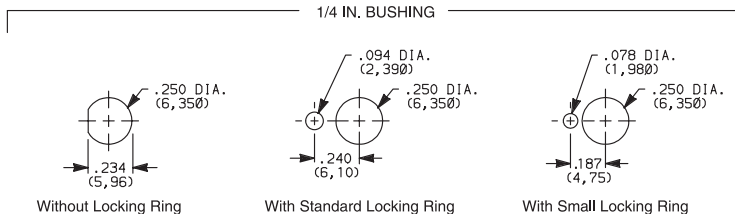


Withstands 12 in./lbs. of torque with no distortion.

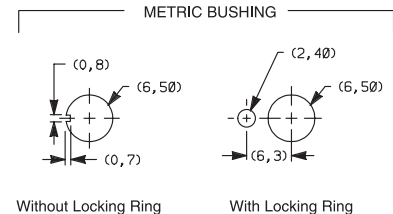
**NOTE:** When selecting bushing option, plunger selection must also be made, see above. No bushing option choice required when any JXX actuator option is selected.

## PANEL MOUNTING

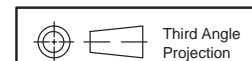
### 1/4 IN. BUSHING



### METRIC BUSHING



**NOTE.** Two mounting nuts, locking ring and lockwasher supplied standard with threaded bushings. Optional mounting nut and locking ring styles and finishes available, see section "Technical Data and Additional Hardware".



Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change





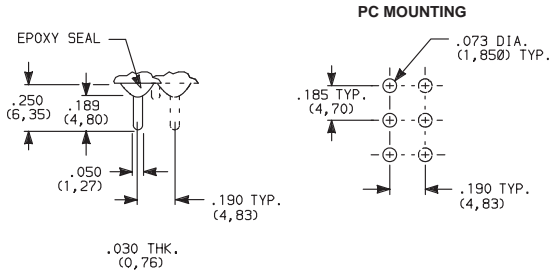
# 8060 Series Alternate Action and Momentary Pushbutton Switches

## TERMINATIONS

Pushbutton

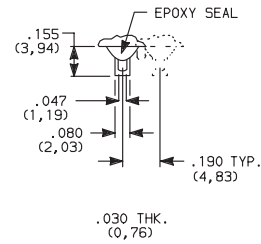
A

### C PC THRU-HOLE



### SPDT and DPDT

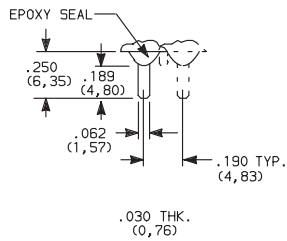
### Z SOLDER LUG



### SPDT and DPDT

Not available with P, S or R contact material.

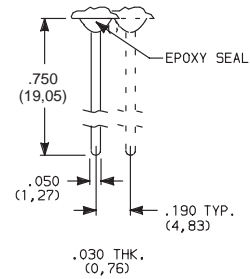
### Z3 QUICK CONNECT



### SPDT and DPDT

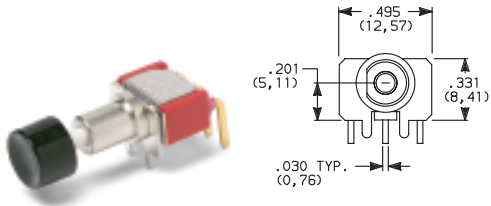
Not available with P, S or R contact material.  
Mating quick connector available:  
order part number 530100000, page A-61.

### W WIRE WRAP

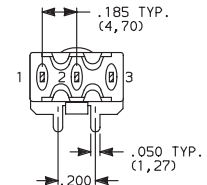
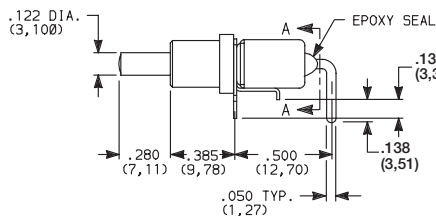
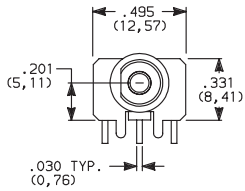


### SPDT and DPDT

### A RIGHT ANGLE, PC THRU-HOLE

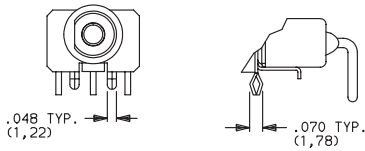


8161SH9ABE2  
SPDT



SECTION A-A

### A3 RIGHT ANGLE, SNAP-IN, PC THRU-HOLE



Not available with I seal.  
Terminal bend radii and lead-in manufacturing option.

NOTE: PC pattern must clear switch support leg.



Third Angle  
Projection

Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change





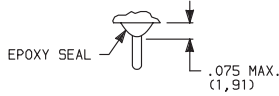
# 8060 Series Alternate Action and Momentary Pushbutton Switches

A

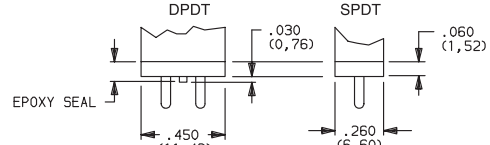
Pushbutton

## SEAL

**E** EPOXY SEAL



**I** EPOXY POTTED BASE

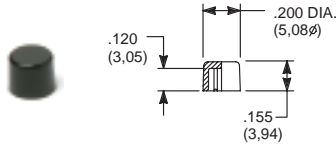


LENGTH IS SAME AS SWITCH BODY

NOTE: Available with C, W, Z, Z3 terminations only.

## AVAILABLE HARDWARE

Cap

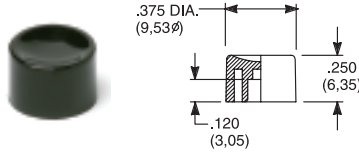


PART NO.

- 708901000 WHITE
- 708902000 BLACK
- 708903000 RED
- 708904000 ORANGE
- 708905000 YELLOW
- 708909000 GRAY

Material: Nylon  
Finish: Gloss

Cap

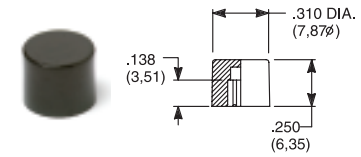


PART NO.

- 752701000 WHITE
- 752702000 BLACK
- 752703000 RED
- 752704000 ORANGE
- 752705000 YELLOW
- 752709000 GRAY

Material: Nylon  
Finish: Gloss

Cap

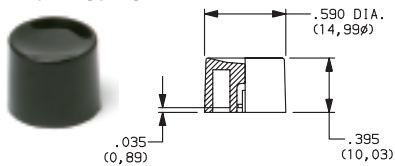


PART NO.

- 801801000 WHITE
- 801802000 BLACK
- 801803000 RED
- 801804000 ORANGE
- 801805000 YELLOW
- 801809000 GRAY

Material: Nylon  
Finish: Gloss

Cap, Snap-fitting plunger

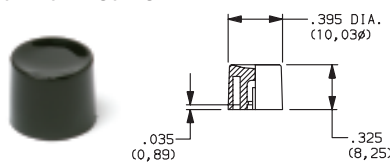


PART NO.

- 894001000 WHITE
- 894002000 BLACK
- 894003000 RED
- 894004000 ORANGE
- 894005000 YELLOW
- 894009000 GRAY

Material: Nylon  
Finish: Gloss

Cap, Snap-fitting plunger

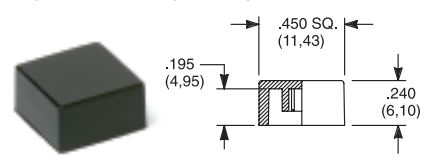


PART NO.

- 894101000 WHITE
- 894102000 BLACK
- 894103000 RED
- 894104000 ORANGE
- 894105000 YELLOW
- 894109000 GRAY

Material: Nylon  
Finish: Gloss

Cap, J80, J81 & J82 options only



PART NO.

- 484601000 WHITE
- 484602000 BLACK
- 484603000 RED
- 484604000 ORANGE
- 484605000 YELLOW
- 484609000 GRAY

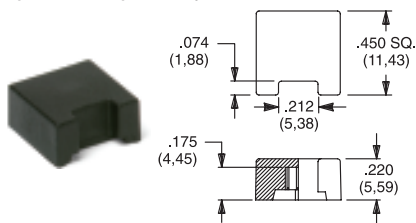
Material: Nylon  
Finish: Gloss

PART NO.

- 798201000 WHITE
- 798202263 BLACK
- 798203000 RED
- 798204000 ORANGE
- 798205000 YELLOW
- 798209000 GRAY

Material: Nylon  
Finish: Matte

Cap, J86 & J96 options only



PART NO.

- 459701000
- 459702000
- 459703000
- 459704000
- 459705000
- 459709000

Material: Nylon  
Finish: Gloss

PART NO.

- 476801000 WHITE
- 476802000 BLACK
- 476803000 RED
- 476804000 ORANGE
- 476805000 YELLOW
- 476809000 GRAY

Material: Nylon  
Finish: Matte

Frame



PART NO.

- 615602263 BLACK

Material: Nylon  
Finish: Matte

Frame



PART NO.

- 613302263 BLACK

Material: Nylon  
Finish: Matte

NOTE: Additional nuts, locking rings and lockwashers available separately, see section "Technical Data and Additional Hardware".  
Other cap & frame colors available, consult Customer Service Center.



Dimensions are shown: Inches (mm)  
Specifications and dimensions subject to change

