



# Pushbutton



- ## Typical Applications

- *Instrumentation*
- *Computers and peripherals*
- *Telecommunications and networking equipment*



### Models Available

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.

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.

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.



|             |              |
|-------------|--------------|
| <b>8161</b> | SPDT On-On   |
| <b>8168</b> | SPDT On-Mom. |
| <b>8261</b> | DPDT On-On   |

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

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

- 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

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

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

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

**2** Black

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



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

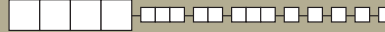
# 8060 Series Alternate Action and Momentary Pushbutton Switches



A

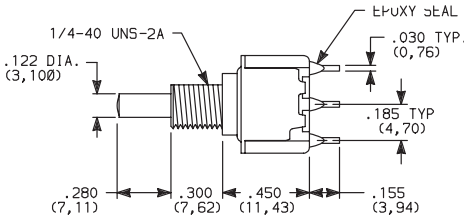
Pushbutton

## SWITCH FUNCTION

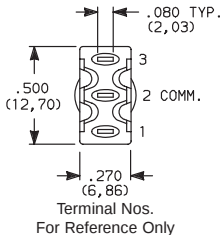


| NO.<br>POLES | MODEL NO.    | SWITCH FUNCTION                                                                   |                                                                                   | CONNECTED TERMINALS                                                               |                                                                                   | SCHEMATIC                                                                           |
|--------------|--------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
|              |              | POS. 1                                                                            | POS. 2                                                                            | POS. 1                                                                            | POS. 2                                                                            |                                                                                     |
|              |              |  |  |  |  |                                                                                     |
|              |              | C&K marking this side                                                             |                                                                                   | C&K marking this side                                                             |                                                                                   |                                                                                     |
| SP           | 8161<br>8168 | ON<br>ON                                                                          | ON<br>MOM.                                                                        | 2-3<br>2-3                                                                        | 2-1<br>2-1                                                                        |  |
| SPDT         |              |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |

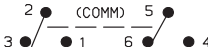
### SPDT



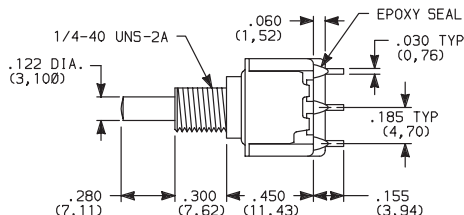
Part number shown: 8161SHZQE



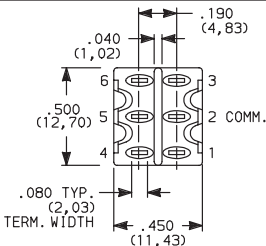
Terminal Nos.  
For Reference Only

|      |      |    |    |         |         |                                                                                     |
|------|------|----|----|---------|---------|-------------------------------------------------------------------------------------|
| DP   | 8261 | ON | ON | 2-3,5-6 | 2-1,5-4 |  |
| DPDT |      |    |    |         |         |                                                                                     |

### DPDT



Part number shown: 8261SHZQE

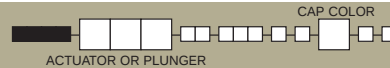


Terminal Nos.  
For Reference Only

MOM. = Momentary

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

## ACTUATOR—SNAP-IN FRONT MOUNT



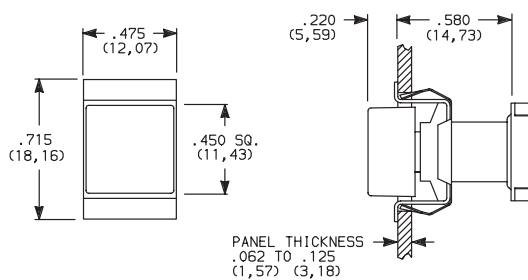
| OPTION CODE | CAP COLOR |
|-------------|-----------|
| <b>2</b>    | BLACK     |
| <b>1</b>    | WHITE     |
| <b>3</b>    | RED       |
| <b>4</b>    | ORANGE    |
| <b>5</b>    | YELLOW    |
| <b>9</b>    | GRAY      |

Cap Finish: matte.  
Other colors available, consult  
Customer Service Center.

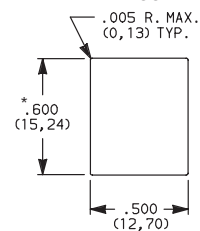
Available with C, W, Z or  
Z3 terminations.

**NOTE:** Caps & frames available  
separately, see pages A-60 and A-61.

### J80 SNAP-IN



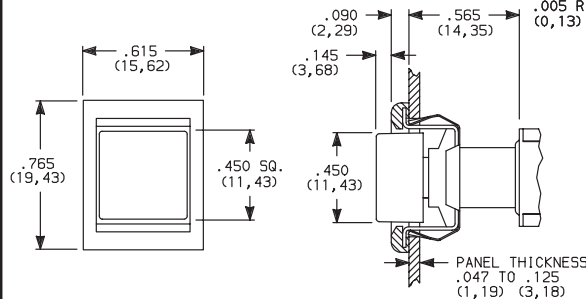
#### PANEL MOUNTING



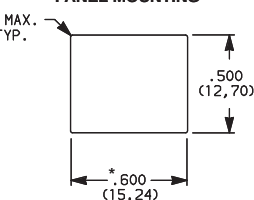
\*Increase this dimension to  
.620/.625 (15,75/15,88)  
for .091/.125 (2,41/2,18)  
thick panels.



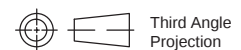
### J81 SNAP-IN WITH BLACK FRAME



#### PANEL MOUNTING



\*Increase this dimension to  
.620/.625 (15,75/15,88)  
for .091/.125 (2,41/2,18)  
thick panels.



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





A

Pushbutton

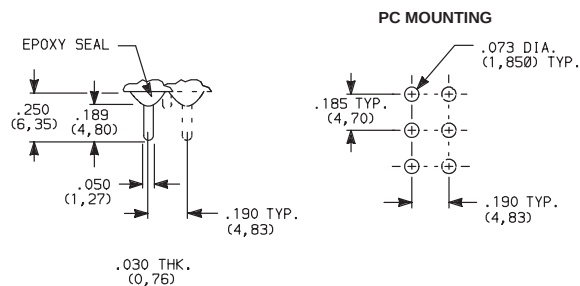
# 8060 Series

## Alternate Action and Momentary Pushbutton Switches

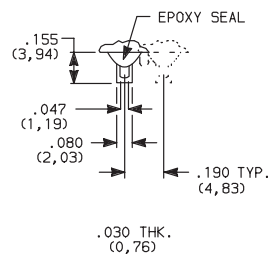
### TERMINATIONS



#### C PC THRU-HOLE



#### Z SOLDER LUG

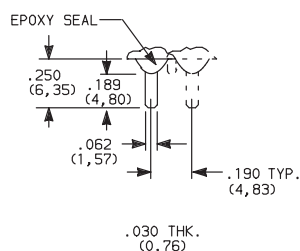


#### SPDT and DPDT

#### SPDT and DPDT

Not available with P, S or R contact material.

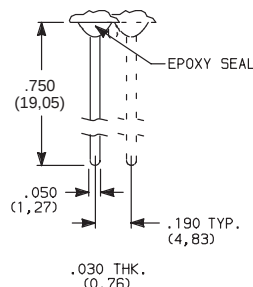
#### Z3 QUICK CONNECT



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

#### SPDT and DPDT

#### W WIRE WRAP

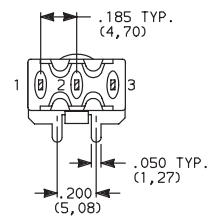
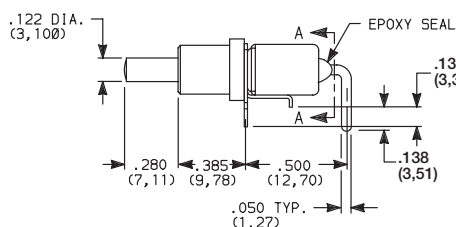
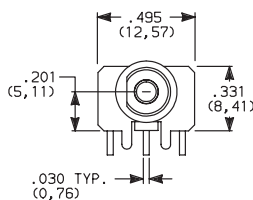


#### SPDT and DPDT

#### A RIGHT ANGLE, PC THRU-HOLE

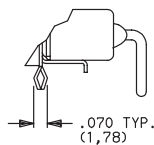
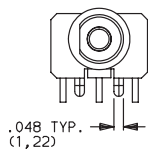


8161SH9ABE2  
SPDT

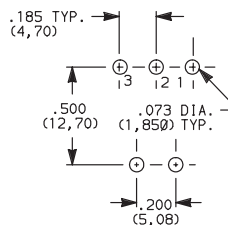


SECTION A-A

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



#### PC MOUNTING



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

**C&K**

# 8060 Series Alternate Action and Momentary Pushbutton Switches



A

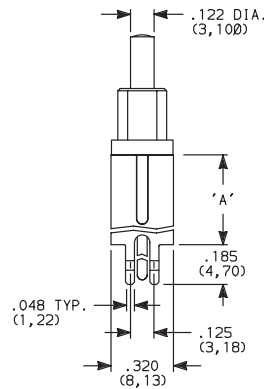
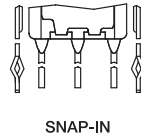
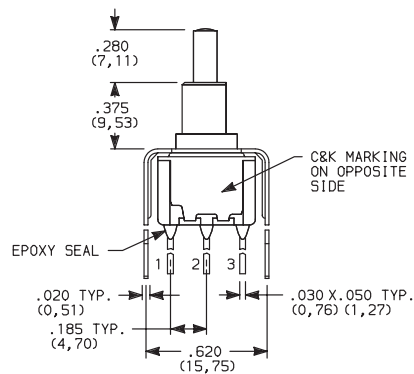
Pushbutton

## TERMINATIONS

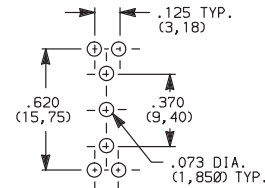


**V3, V4** VERTICAL MOUNT, V-BRACKET

**V31** VERTICAL MOUNT, V-BRACKET, SNAP-IN



PC MOUNTING



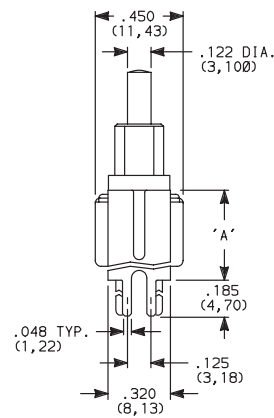
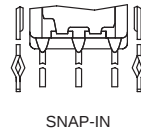
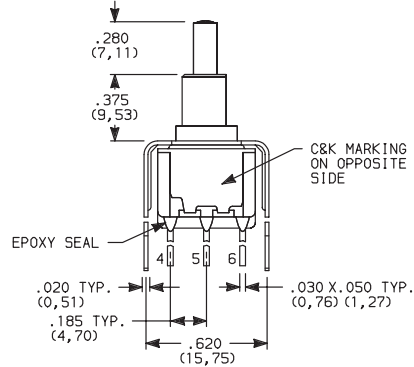
8161SH9\_BE2  
SPDT

| OPTION CODE | DIM 'A'      |
|-------------|--------------|
| V3, V31     | .460 (11,68) |
| V4          | .630 (16,00) |

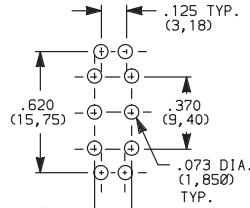
Not available with I seal.

**V3, V4** VERTICAL MOUNT, V-BRACKET

**V31** VERTICAL MOUNT, V-BRACKET, SNAP-IN



PC MOUNTING



8261SH9\_BE2  
DPDT

| OPTION CODE | DIM 'A'      |
|-------------|--------------|
| V3, V31     | .460 (11,68) |
| V4          | .630 (16,00) |

Not available with I seal.

## CONTACT MATERIAL



| OPTION CODE | CONTACT MATERIAL                | TERMINAL PLATING       | RATINGS                        |                                                                                           |
|-------------|---------------------------------|------------------------|--------------------------------|-------------------------------------------------------------------------------------------|
| B           | GOLD <sup>1</sup>               | GOLD <sup>1</sup>      | LOW LEVEL/DRY CIRCUIT          | 0.4 VA MAX. @ 20 V AC OR DC MAX.                                                          |
| P           |                                 | MATTE-TIN <sup>6</sup> |                                |                                                                                           |
| Q           | SILVER <sup>4,5</sup>           | SILVER <sup>5</sup>    | POWER                          | 6 AMPS @ 120 V AC OR 28 V DC;<br>3 AMPS @ 250 V AC.                                       |
| S           |                                 | MATTE-TIN <sup>6</sup> |                                |                                                                                           |
| G           | GOLD OVER SILVER <sup>2,3</sup> | GOLD <sup>3</sup>      | LOW LEVEL/DRY CIRCUIT OR POWER | 0.4 VA MAX @ 20 V AC OR DC MAX. OR<br>6 AMPS @ 120 V AC OR 28 V DC;<br>3 AMPS @ 250 V AC. |
| R           |                                 | MATTE-TIN <sup>6</sup> |                                |                                                                                           |

\* Note: See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.

<sup>1</sup> CONTACTS & TERMINALS: Copper alloy, with gold plate over nickel plate.

<sup>2</sup> END CONTACTS: Coin silver, with gold plate over nickel plate.

<sup>3</sup> CENTER CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate.

<sup>4</sup> END CONTACTS: Coin silver, silver plated.

<sup>5</sup> CENTER CONTACT & ALL TERMINALS: Copper alloy, silver plated.

<sup>6</sup> TERMINALS: Copper alloy, with matte-tin over nickel plate.

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

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

B contact material standard with all terminations except C, Z & Z3.

Q contact material standard with C, Z & Z3 terminations.

P, S & R contact materials not available with Z & Z3 terminations.

K, L and M options represent Non RoHS tin lead product and are not recommended for new designs. For additional information please contact Customer Service.

**C&K**



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



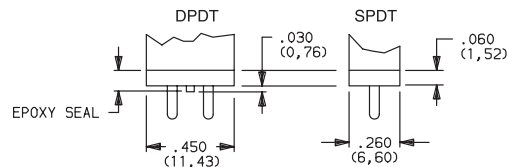
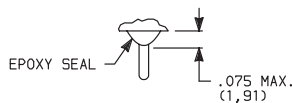
A

Pushbutton

## 8060 Series

## Alternate Action and Momentary Pushbutton Switches

SEAL

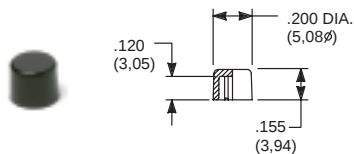
**E** EPOXY SEAL**I** EPOXY POTTED BASE

LENGTH IS SAME AS SWITCH BODY

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

## AVAILABLE HARDWARE

## Cap

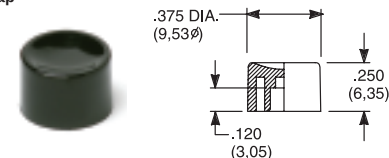


## PART NO.

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

Material: Nylon  
Finish: Gloss

## Cap

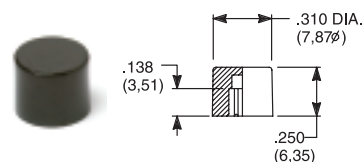


## PART NO.

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

Material: Nylon  
Finish: Gloss

## Cap

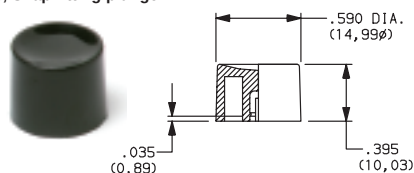


## PART NO.

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

Material: Nylon  
Finish: Gloss

## Cap, Snap-fitting plunger

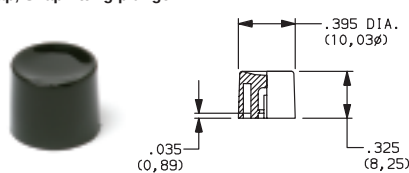


## PART NO.

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

Material: Nylon  
Finish: Gloss

## Cap, Snap-fitting plunger

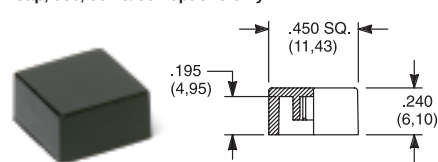


## PART NO.

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

Material: Nylon  
Finish: Gloss

## Cap, J80, J81 &amp; J82 options only



## PART NO.

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

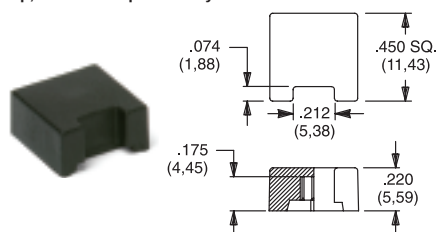
Material: Nylon  
Finish: Gloss

## PART NO.

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

Material: Nylon  
Finish: Matte

## Cap, J86 &amp; 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.



Third Angle Projection

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

**C&K**