

C&K 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



Specifications

CONTACT RATING: Q contact material: 6 AMPS @ 120 V AC or 28 V DC; 3 AMPS @ 250 V AC. See page A-57 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: 10⁹Ω 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. For the latest information regarding RoHS compliance, please go to: www.ittcannon.com/rohs.

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-57 for additional contact materials.

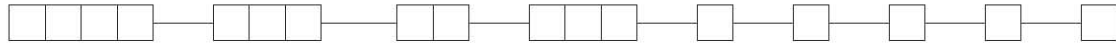
CENTER CONTACT & ALL TERMINALS: Q contact material: Copper alloy, silver plated. See page A-57 for additional contact materials.

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-51 thru A-59. 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 _____

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
- K** Gold, tin-lead
- P** Gold, matte-tin
- Q** Silver
- M** Silver, tin-lead
- S** Silver, matte-tin
- G** Gold over silver
- L** Gold over silver, tin-lead
- 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

C&K 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	
SP	8161	ON	ON	2-3	2-1	
	8168	ON	MOM.	2-3	2-1	
<p>SPDT</p> <p>Part number shown: 8161SHZQE</p>						
DP	8261	ON	ON	2-3-5-6	2-1-5-4	
<p>DPDT</p> <p>Part number shown: 8261SHZQE</p>						

MOM. = Momentary

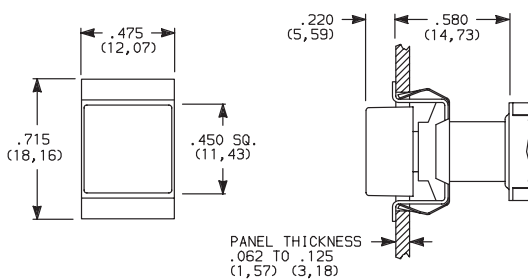
All models with all options when ordered with G, L, M or Q contact material.

ACTUATOR—SNAP-IN FRONT MOUNT

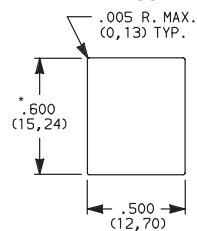
OPTION CODE	CAP COLOR
2	BLACK
1	WHITE
3	RED
4	ORANGE
5	YELLOW
9	GRAY

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-58 and A-59.

J80 SNAP-IN



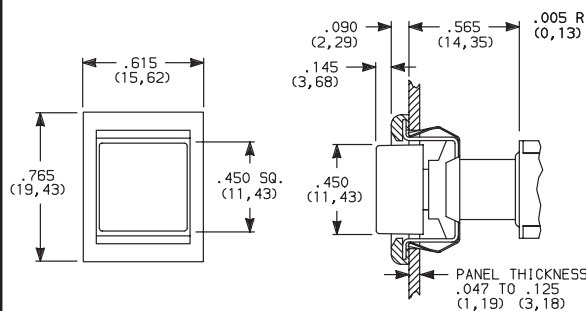
PANEL MOUNTING



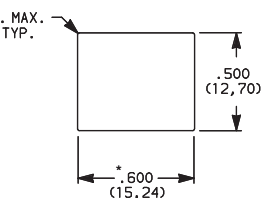
*Increase this dimension to .620/.625 (15,75/15,88) for .091/.125 (2,41/2,18) thick panels.



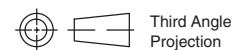
J81 SNAP-IN WITH BLACK FRAME



PANEL MOUNTING



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



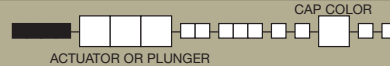
Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change





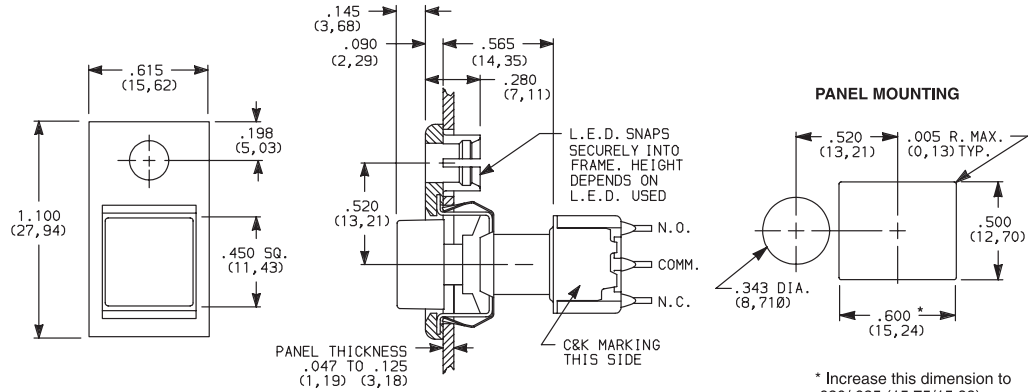
C&K 8060 Series Alternate Action and Momentary Pushbutton Switches

ACTUATOR—SNAP-IN FRONT MOUNT



Pushbutton
A

J82 SNAP-IN WITH BLACK FRAME FOR LED



Available with C, W, Z or Z3 terminations.

LED not included.
For LED information, see page A-59.

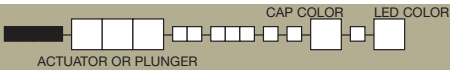
NOTE: Caps & frames available separately, see pages A-58 and A-59.

Other colors available, consult Customer Service Center.

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

* Increase this dimension to .620/.625 (15,75/15,88) for .091/.125 (2,31/3,18) thick panels.

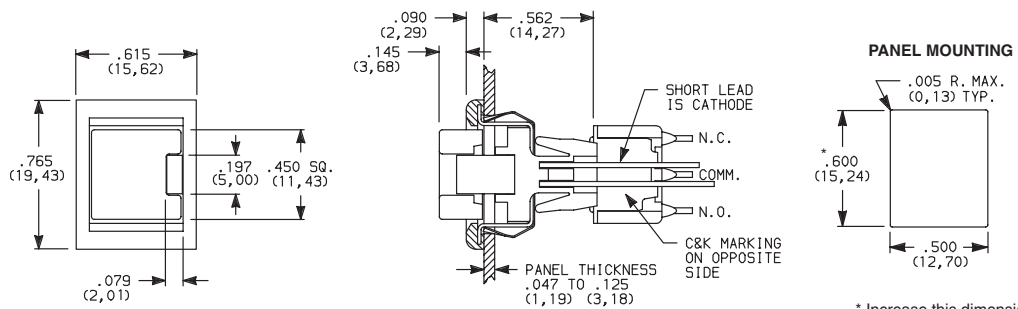
ACTUATOR—SNAP-IN FRONT MOUNT



J86 SNAP-IN WITH BLACK FRAME AND LED



8161J86ZQE223
SPDT



Available with C, W, Z or Z3 terminations and SPDT models only.

NOTE: Caps & frames available separately, see pages A-58 and A-59.

Other colors available, consult Customer Service Center.

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

OPTION CODE	LED COLOR
3	RED

For LED information, see page A-59.

* Increase this dimension to .620/.625 (15,75/15,88) for .091/.125 (2,31/3,18) thick panels.



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

C&K 8060 Series Alternate Action and Momentary Pushbutton Switches

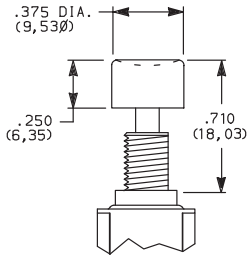


A

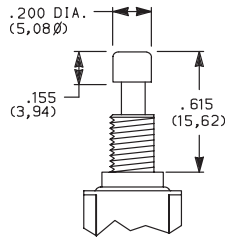
Pushbutton

PLUNGER

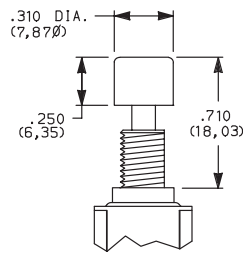
S PLUNGER WITH CAP P/N 7527



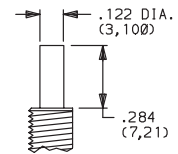
S1 PLUNGER WITH CAP P/N 7089



S2 PLUNGER WITH CAP P/N 8018

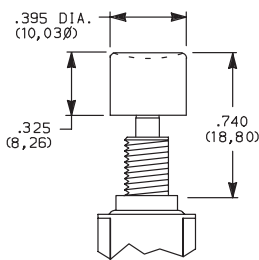


S, S1, S2 plunger dimensions.

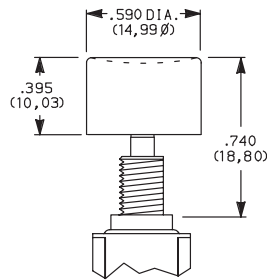


Plunger material: Glass filled nylon or glass filled polyester (UL 94V-0).

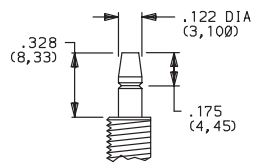
L PLUNGER WITH CAP P/N 8941



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.

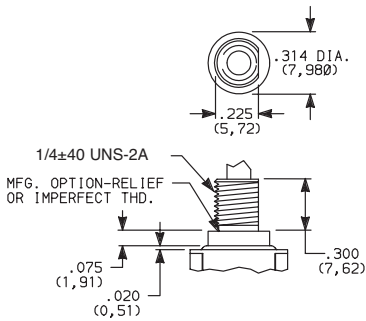
BUSHING

H .300" HIGH THREADED, FLAT

NONE NO BUSHING CHOICE REQUIRED (JXX ACTUATORS)

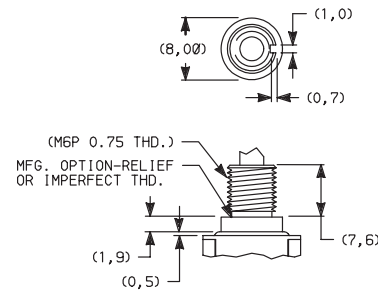
Y3 7.6mm THREADED, KEYWAY

H9 .300" HIGH UNTHREADED, FLAT



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.

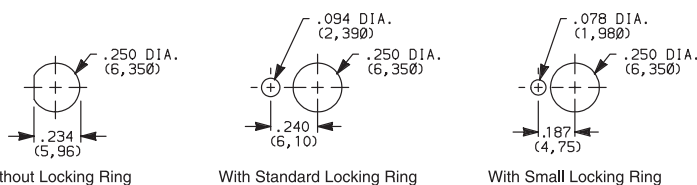


Withstands 12 in./lbs. of torque with no distortion.

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

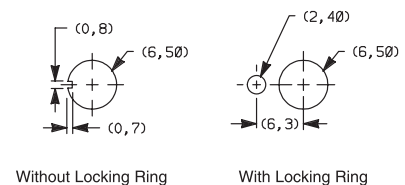


Without Locking Ring

With Standard Locking Ring

With Small Locking Ring

METRIC BUSHING



Without Locking Ring

With Locking Ring

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



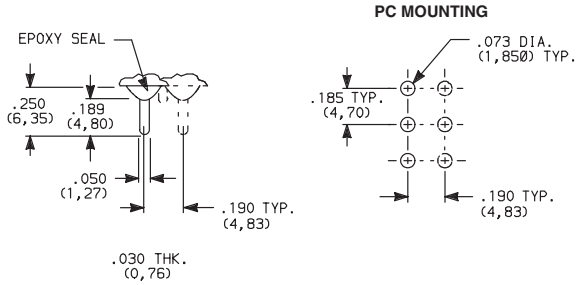


Pushbutton
A

C&K 8060 Series Alternate Action and Momentary Pushbutton Switches

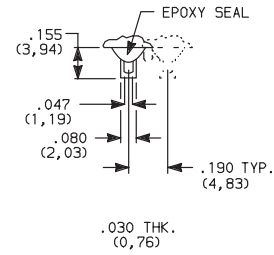
TERMINATIONS

C PC THRU-HOLE



SPDT and DPDT

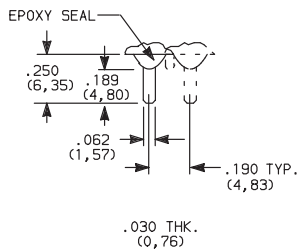
Z SOLDER LUG



SPDT and DPDT

Not available with P, S, R, K, L, or M contact material.

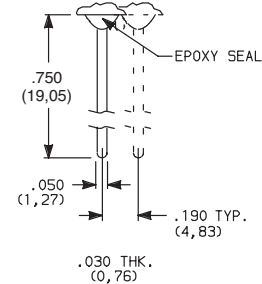
Z3 QUICK CONNECT



SPDT and DPDT

Not available with P, S, R, K, L, or M contact material. Mating quick connector available; order part number 530100000, page A-59.

W WIRE WRAP

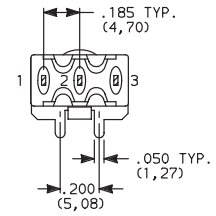
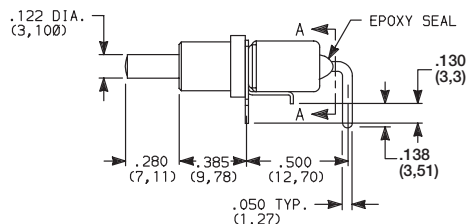
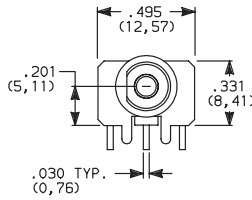


SPDT and DPDT

A RIGHT ANGLE, PC THRU-HOLE

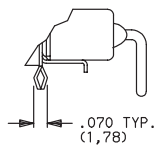
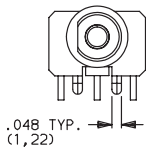


8161SH9ABE2
SPDT

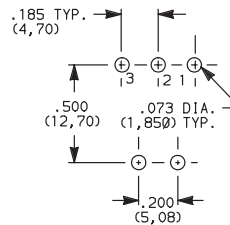


SECTION A-A

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

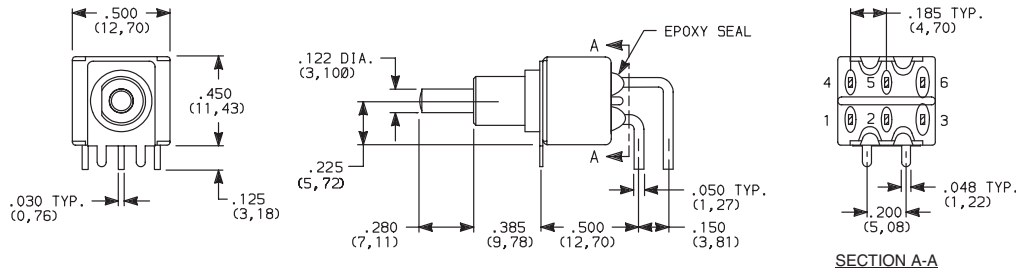


A

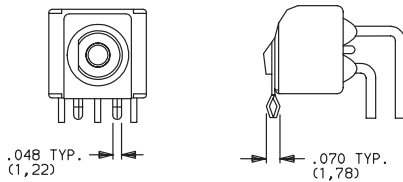
Pushbutton

TERMINATIONS

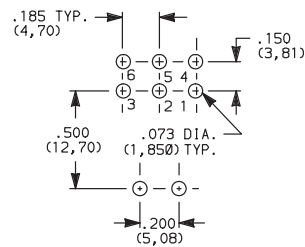
A RIGHT ANGLE, PC THRU-HOLE



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

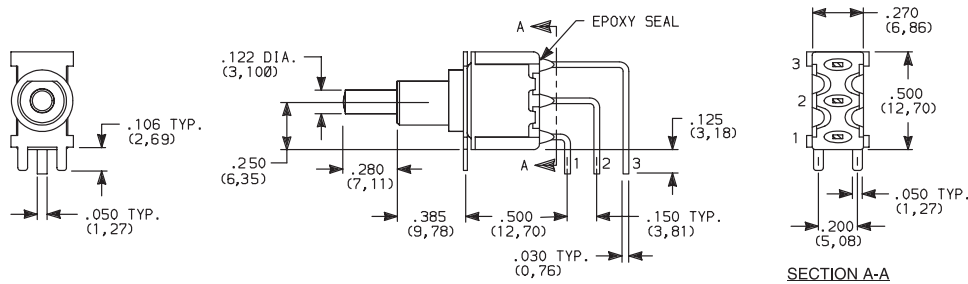


PC MOUNTING

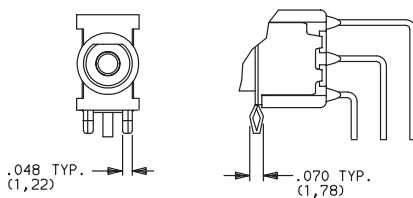


Not available with I seal.
Terminal bend radii and lead-in manufacturing option.

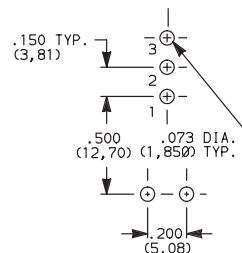
AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150° PITCH



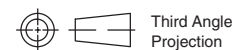
AV3 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150° PITCH



PC MOUNTING



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



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

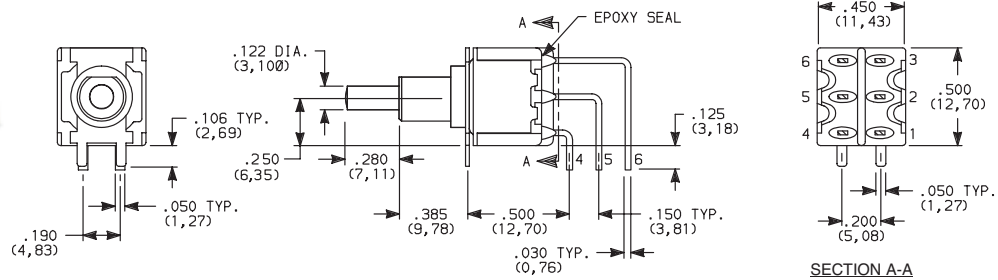
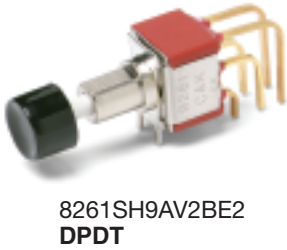


C&K 8060 Series Alternate Action and Momentary Pushbutton Switches

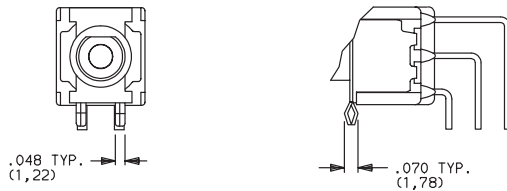
TERMINATIONS

Pushbutton
A

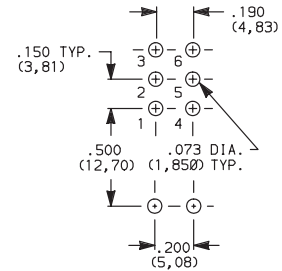
AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH



AV3 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150" PITCH



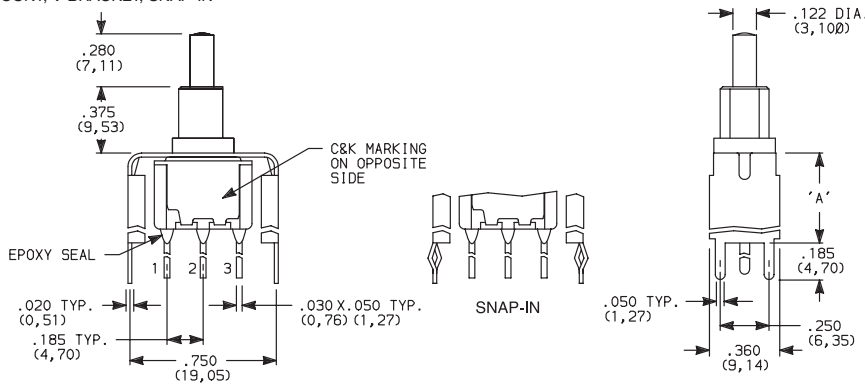
PC MOUNTING



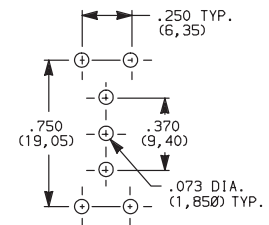
Not available with I seal.
Terminal bend radii and lead-in manufacturing option.

V6 VERTICAL MOUNT, V-BRACKET

V21 VERTICAL MOUNT, V-BRACKET, SNAP-IN



PC MOUNTING

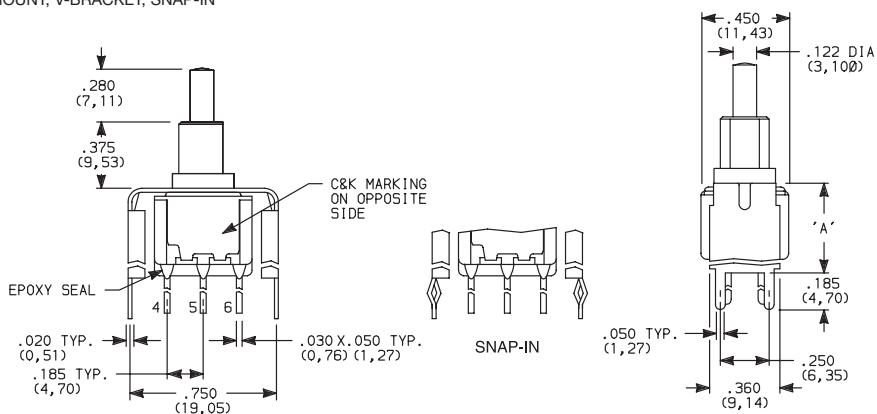
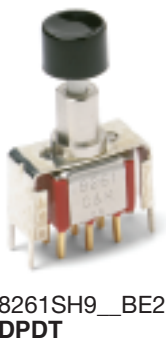


OPTION CODE	DIM 'A'
V21	.555 (14,10)
V6	.460 (11,68)

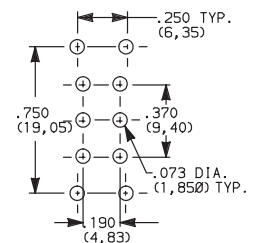
Not available with I seal.

V6 VERTICAL MOUNT, V-BRACKET

V21 VERTICAL MOUNT, V-BRACKET, SNAP-IN



PC MOUNTING



OPTION CODE	DIM 'A'
V21	.555 (14,10)
V6	.460 (11,68)

Not available with I seal.



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



C&K 8060 Series Alternate Action and Momentary Pushbutton Switches



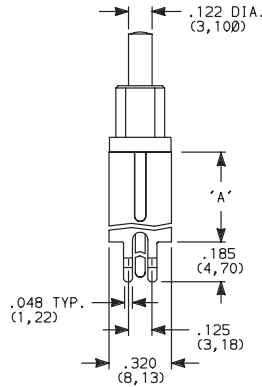
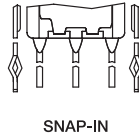
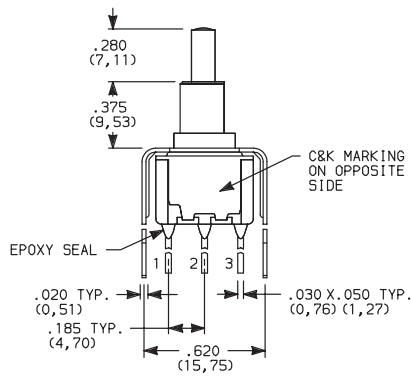
A

Pushbutton

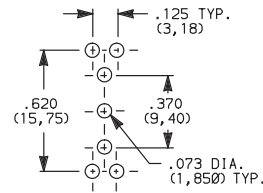
TERMINATIONS

V3, V4 VERTICAL MOUNT, V-BRACKET

V31 VERTICAL MOUNT, V-BRACKET, SNAP-IN



PC MOUNTING



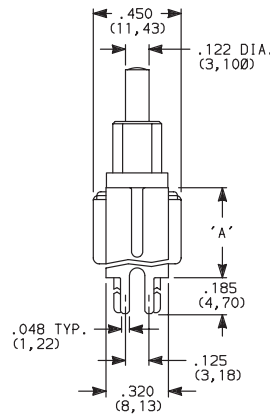
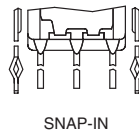
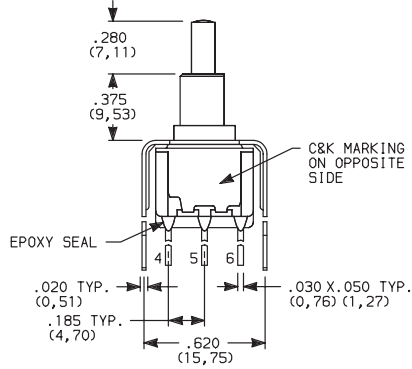
8161SH9_BE2
SPDT

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

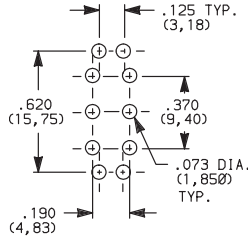
Not available with I seal.

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	RoHS COMPLIANT *	RoHS COMPATIBLE *	CONTACT MATERIAL	TERMINAL PLATING	RATINGS	
B	YES	YES	GOLD ¹	GOLD ¹	LOW LEVEL/DRY CIRCUIT	0.4 VA MAX. @ 20 V AC OR DC MAX.
K	NO	YES		TIN-LEAD ⁶		
P	YES	YES		MATTE-TIN ⁷		
Q	YES	YES	SILVER ^{4,5}	SILVER ⁵	POWER	6 AMPS @ 120 V AC OR 28 V DC; 3 AMPS @ 250 V AC.
M	NO	YES		TIN-LEAD ⁶		
S	YES	YES		MATTE-TIN ⁷		
G	YES	YES	GOLD OVER SILVER ^{2,3}	GOLD ³	LOW LEVEL/DRY CIRCUIT OR POWER	0.4 VA MAX @ 20 V AC OR DC MAX. OR 6 AMPS @ 120 V AC OR 28 V DC; 3 AMPS @ 250 V AC.
L	NO	YES		TIN-LEAD ⁶		
R	YES	YES		MATTE-TIN ⁷		

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

- CONTACTS & TERMINALS: Copper alloy, with gold plate over nickel plate.
- END CONTACTS: Coin silver, with gold plate over nickel plate.
- CENTER CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate.
- END CONTACTS: Coin silver, silver plated.
- CENTER CONTACT & ALL TERMINALS: Copper alloy, silver plated.
- TERMINALS: Copper alloy, with tin-lead alloy over nickel plate.
- 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. For the latest information regarding RoHS compliance, please go to: www.ittcannon.com/rohs.

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, K, L & M contact materials not available with Z & Z3 terminations.



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



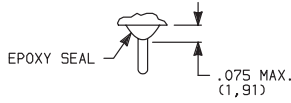


C&K 8060 Series Alternate Action and Momentary Pushbutton Switches

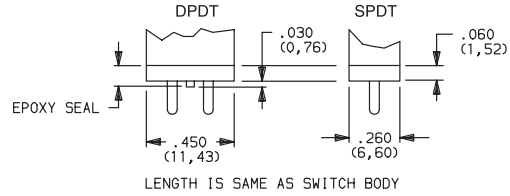
SEAL

Pushbutton
A

E EPOXY SEAL



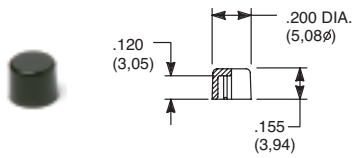
I EPOXY POTTED BASE



LENGTH IS SAME AS SWITCH BODY
NOTE: Available with C, W, Z, Z3 terminations only.

AVAILABLE HARDWARE

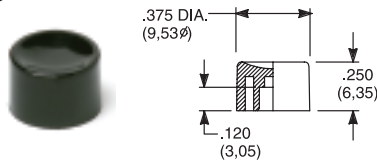
Cap



- PART NO.**
708901000 WHITE
708902000 BLACK
708903000 RED
708904000 ORANGE
708905000 YELLOW
708909000 GRAY

Material: Nylon
Finish: Gloss

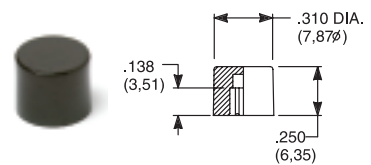
Cap



- PART NO.**
752701000 WHITE
752702000 BLACK
752703000 RED
752704000 ORANGE
752705000 YELLOW
752709000 GRAY

Material: Nylon
Finish: Gloss

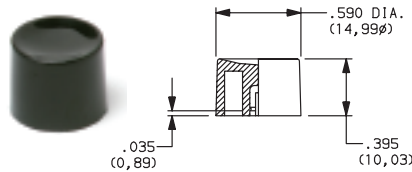
Cap



- PART NO.**
801801000 WHITE
801802000 BLACK
801803000 RED
801804000 ORANGE
801805000 YELLOW
801809000 GRAY

Material: Nylon
Finish: Gloss

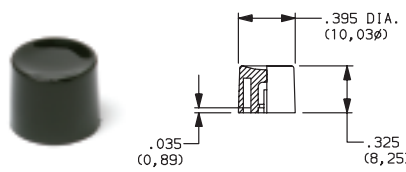
Cap, Snap-fitting plunger



- PART NO.**
894001000 WHITE
894002000 BLACK
894003000 RED
894004000 ORANGE
894005000 YELLOW
894009000 GRAY

Material: Nylon
Finish: Gloss

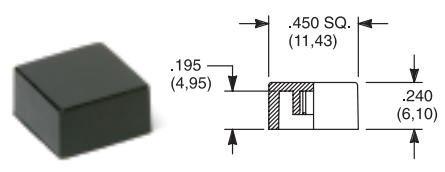
Cap, Snap-fitting plunger



- PART NO.**
894101000 WHITE
894102000 BLACK
894103000 RED
894104000 ORANGE
894105000 YELLOW
894109000 GRAY

Material: Nylon
Finish: Gloss

Cap, J80, J81 & J82 options only

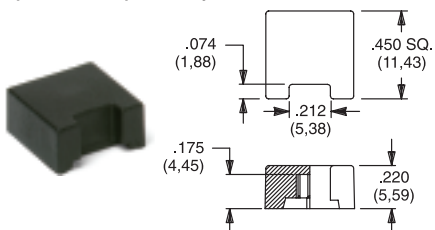


- | | |
|-------------------------|-------------------------|
| PART NO. | PART NO. |
| 484601000 WHITE | 798201000 WHITE |
| 484602000 BLACK | 798202263 BLACK |
| 484603000 RED | 798203000 RED |
| 484604000 ORANGE | 798204000 ORANGE |
| 484605000 YELLOW | 798205000 YELLOW |
| 484609000 GRAY | 798209000 GRAY |

Material: Nylon
Finish: Gloss

Material: Nylon
Finish: Matte

Cap, J86 & J96 options only



- | | |
|------------------|-------------------------|
| PART NO. | PART NO. |
| 459701000 | 476801000 WHITE |
| 459702000 | 476802000 BLACK |
| 459703000 | 476803000 RED |
| 459704000 | 476804000 ORANGE |
| 459705000 | 476805000 YELLOW |
| 459709000 | 476809000 GRAY |

Material: Nylon
Finish: Gloss

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



C&K 8060 Series Alternate Action and Momentary Pushbutton Switches



AVAILABLE HARDWARE

Fits Z3 Termination
female connector

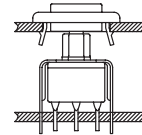
PART NO.
530100000

Available in loose pieces.



Frames snap into panel opening and are independent from switch mounting. Accurate positioning of the PC mounted switch relative to the panel opening is necessary to provide proper clearance between actuator and frame. Available in two basic styles and four panel thicknesses .047-.125 in. Material: Nylon. Finish: Matte.

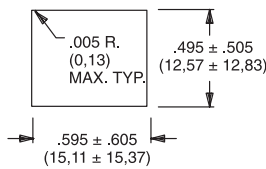
TYPICAL APPLICATION



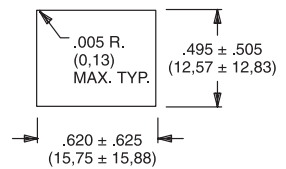
.047" (1,19) PANEL THK.	.062" (1,57) PANEL THK.	.090" (2,29) PANEL THK.	.125" (3,18) PANEL THK.
PART NO. 432502263	PART NO. 432602263	PART NO. 432702263	PART NO. 432802263 BLACK

PANEL MOUNTING

For part numbers
4325xxxxx, 4326xxxxx

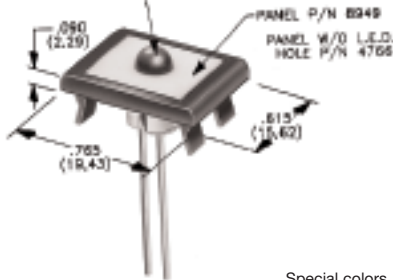


For part numbers
4327xxxxx, 4328xxxxx



Panel Inserts

LED (.200 DIA. (5,08)) SNAPS
SECURELY INTO INSERT (P/N 8949).
HEIGHT DEPENDS ON LED USED.



Above frames (part nos. 432XXXXXX) are also available with insert which accepts LED for indicator light assembly. Order insert separately from frame. Blank insert panel (without hole for LED) also available. **LED not included.**

PANEL INSERT
WITH HOLE FOR LED

PART NO.
894902000

BLANK PANEL INSERT
WITHOUT HOLE FOR LED

PART NO.
476602000 BLACK

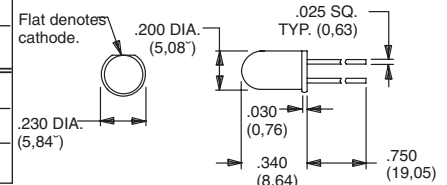
Special colors, custom markings available, consult Customer Service Center.

LED INFORMATION

SWITCHES WITH LED SUPPLIED: J86 OPTION:

Rectangular LEDs are supplied on 8060 Series pushbutton switches with J86 option. These LEDs are factory installed and are not replaceable. The following specifications apply:

OPTION CODE	COLOR	TYP. INTENSITY	TYP. FORWARD VOLTAGE	TYP. FORWARD CURRENT	MAX RATINGS AT 25°C AMBIENT TEMPERATURE		
					FORWARD VOLTAGE	CONTINUOUS FORWARD CURRENT	POWER DISSIPATION
6	Green	1.0 mcd	2.1 V	20 mA	2.5 V	50 mA	125 mW
3	Red*	0.5 mcd		10 mA		30 mA	75 mW
5	Yellow	4.0 mcd		20 mA		50 mA	125 mW



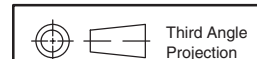
Process Information: Soldering to LED leads must be completed within 5 seconds at 500°F (260°C) maximum.

Caution: Circuit elements must limit forward current of LED to 50mA max. continuous.

* Extra-bright red LED available (typ. intensity 4.5 mcd), consult Customer Service Center.

LEDs are not supplied with J82 & J84 options. LED snaps into switch frame surrounding actuator and is wired externally.

Suggested LED for J82 & J84 options.
Dimensions for reference only.



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

C&K E020 Series Sealed Snap-acting Momentary Pushbutton Switches



Features/Benefits

- Process sealed with disposable splashproof boot
- Long life contact design
- Snap-fitting plunger available
- RoHS compliant models available

Typical Applications

- Instrumentation
- Telecommunications and networking equipment
- Computers and peripherals



Specifications

CONTACT RATING: B contact material (EX25 Models): 0.4 VA max. @ 20 V AC or DC max. G contact material (EX21 Models): 1 AMP @120 V AC or 28 V DC or 0.4 VA max. @ 20 V AC or DC max.
Note: Break-before-make contacts. Multi-pole contacts do not make and break simultaneously. See page A-24 for additional ratings.

ELECTRICAL LIFE: 60,000 make-and-break cycles at full load.

CONTACT RESISTANCE: Below 50 mΩ typ. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.

INSULATION RESISTANCE: 10⁹Ω min.

DIELECTRIC STRENGTH: 1000 Vrms min. @ sea level.

OPERATING TEMPERATURE: -30°C to 75°C.

CAP INSTALLATION FORCE: 10 lbs. max. permissible.

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

NOTE: Any models supplied with P, R, B or G contact material are RoHS compliant. For the latest information regarding RoHS compliance, please go to: www.ittcannon.com/rohs.

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 & BUSHING: Glass filled nylon 6/6, flame retardant (UL 94V-0).

PLUNGER: Glass filled nylon or glass filled polyester (PBT) (UL 94V-0).

SWITCH SUPPORT: Brass or steel, matte-tin.

SWITCH SUPPORT RETAINER: Stainless steel.

N.O. & N.C. CONTACTS: EX25 MODELS: B contact material: Copper alloy, with gold plate over nickel plate. EX21 MODELS: G contact material: Coin silver, with gold plate over nickel plate. See page A-28 for additional contact materials.

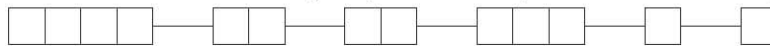
COMMON CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate. See page A-24 for additional contact materials.

TERMINAL SEAL: Epoxy.

DISPOSABLE BOOT: Vinyl splashproof boot supplied standard. Remove and discard only after soldering and cleaning processes are complete.

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-20 thru A-26. For additional options not shown in catalog, consult our Customer Service Center. All models are process sealed to withstand machine soldering temperatures and pressure wash cleaning methods.



Switch Function

- E121** SPDT On-Mom. 1 Amp
- E221** DPDT On-Mom. 1 Amp
- E125** SPDT On-Mom. 0.4VA
- E225** DPDT On-Mom. 0.4VA

Contact Material

- B** Gold
- K** Gold, tin-lead
- G** Gold, matte-tin
- P** Gold over silver
- L** Gold over silver, tin-lead
- R** Gold over silver, matte-tin

Seal

- E** Epoxy and disposable splashproof boot



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



C&K E020 Series Sealed Snap-acting Momentary Pushbutton Switches

SWITCH FUNCTION

Pushbutton

NO. POLES	MODEL NO.	SWITCH FUNCTION		CONNECTED TERMINALS		SCHEMATIC
		POS. 1	POS. 2	POS. 1	POS. 2	
SP	E121	ON	MOM.	1-3	1-2	
	E125	ON	MOM.			
<p>SPDT</p> <p>Part number shown: E121SD1CGE</p>						
DP	E221	ON	MOM.	1-3,4-6	1-2,4-5	
	E225	ON	MOM.			
<p>DPDT</p> <p>Part number shown: E221SD1CBE</p>						

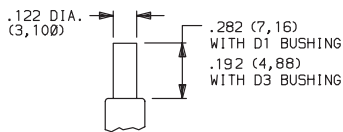
MOM. = Momentary

E121, E221 models with all options when ordered with G, L or R contact material.

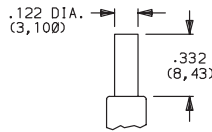
EX25 models must be ordered with B, K or P contact material.
EX21 models must be ordered with G, L or R contact material.

PLUNGER

S .282" HIGH

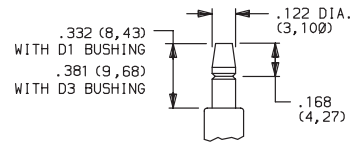


S1 .332" HIGH



Not Available with D1 bushing.

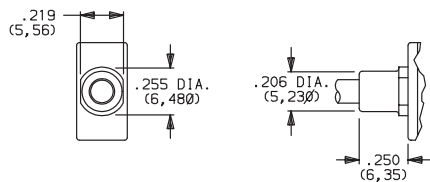
M .332" HIGH SNAP-FITTING



NOTE: Caps available for all plunger options, see page A-25.

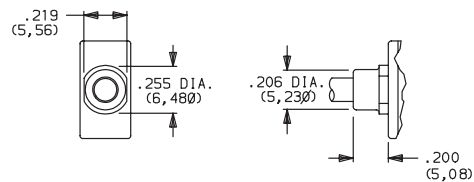
BUSHING

D1 UNTHREADED

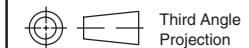


Not available with S1 actuator.

D3 .180" HIGH UNTHREADED



NOTE: Disposable splashproof vinyl over actuator and bushing supplied std., see page A-24.



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



C&K E020 Series Sealed Snap-acting Momentary Pushbutton Switches



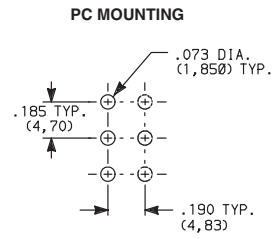
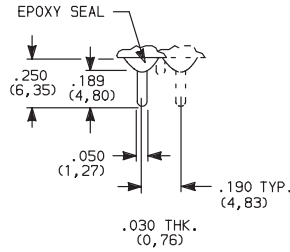
A

Pushbutton

TERMINATIONS

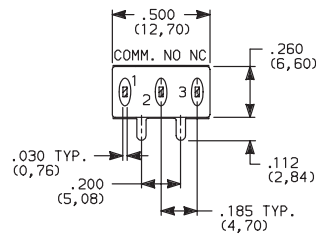
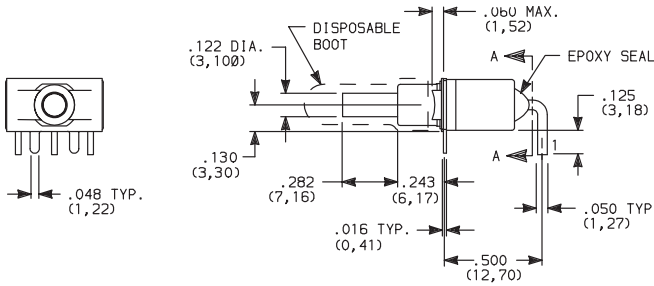


C PC THRU-HOLE



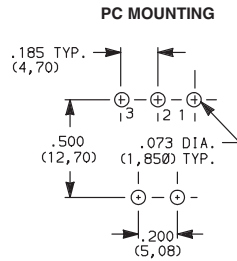
SPDT and DPDT

A RIGHT ANGLE, PC THRU-HOLE



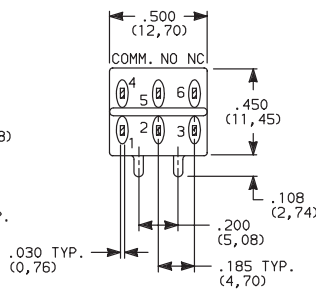
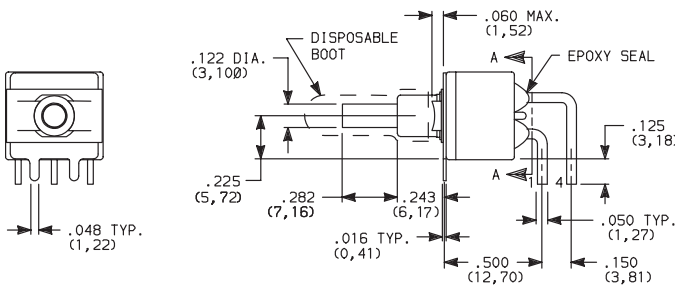
E121SD1AGE SPDT

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



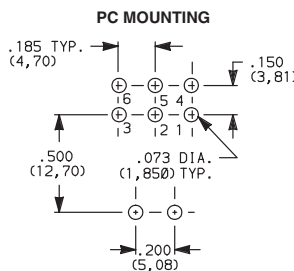
NOTE: Terminal bend radii and lead-in manufacturing option.

A RIGHT ANGLE, PC THRU-HOLE

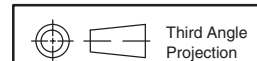


E221SD1AGE DPDT

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



NOTE: Terminal bend radii and lead-in manufacturing option.



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



C&K E020 Series Sealed Snap-acting Momentary Pushbutton Switches

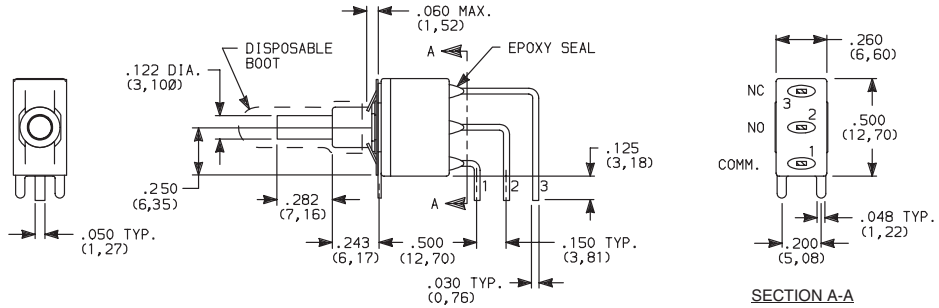
TERMINATIONS

Pushbutton
A

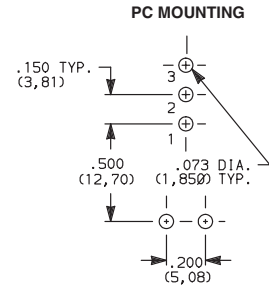
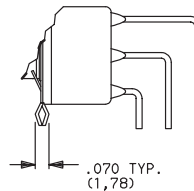
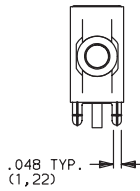
AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE,
.150" PITCH



**E121SD1AV2GE
SPDT**



AV3 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE,
.150" PITCH

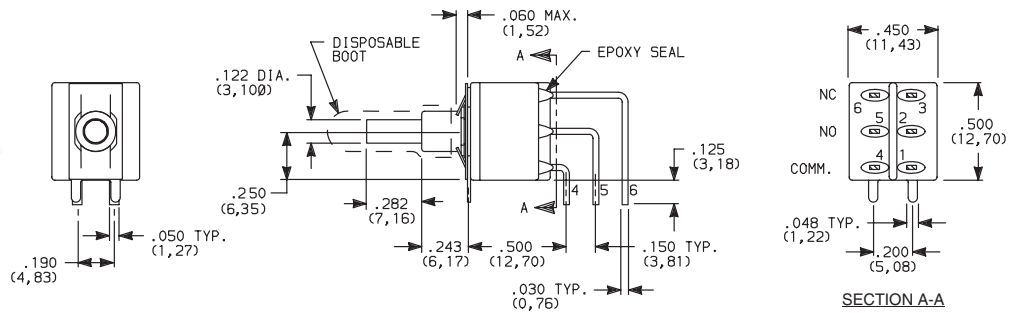


NOTE: Terminal bend radii and lead-in manufacturing option.

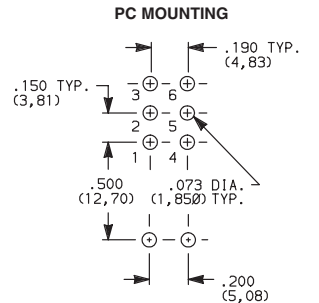
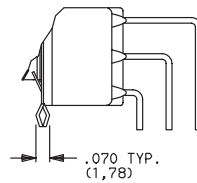
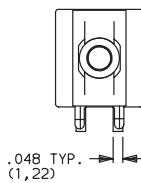
AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE,
.150" PITCH



**E221SD1AV2GE
DPDT**



AV3 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE,
.150" PITCH



NOTE: Terminal bend radii and lead-in manufacturing option.



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

C&K E020 Series Sealed Snap-acting Momentary Pushbutton Switches



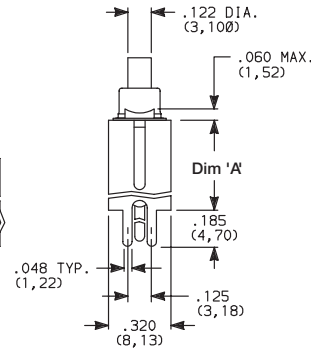
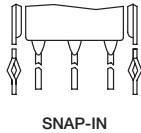
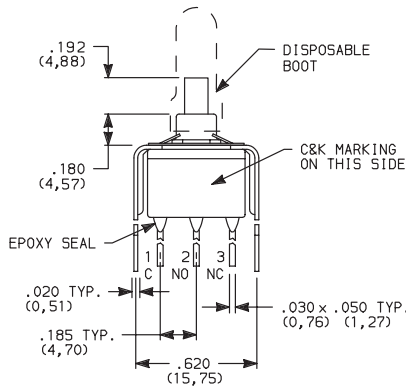
A

Pushbutton

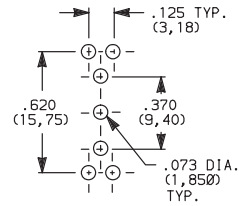
TERMINATIONS

V3, V4 VERTICAL MOUNT, V-BRACKET

V31, V41 VERTICAL MOUNT, V-BRACKET, SNAP-IN



PC MOUNTING

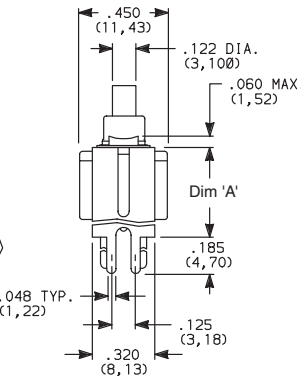
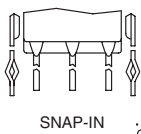
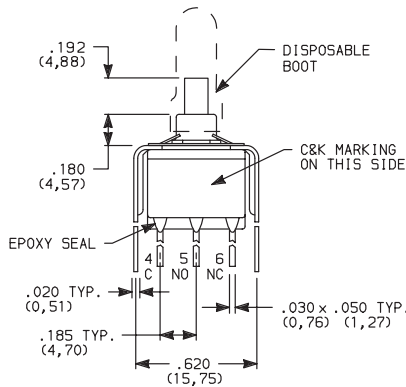


E121SD3_GE
SPDT

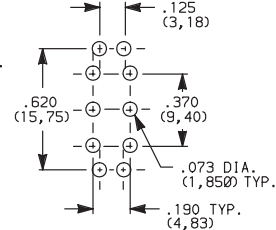
OPTION CODE	DIM 'A'
V3, V31	.460 (11,68)
V4, V41	.630 (16,00)

V3, V4 VERTICAL MOUNT, V-BRACKET

V31, V41 VERTICAL MOUNT, V-BRACKET, SNAP-IN



PC MOUNTING

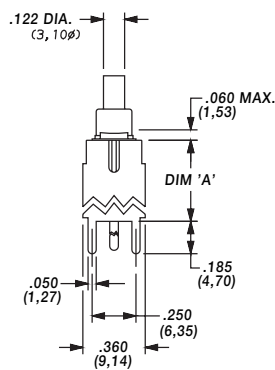
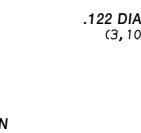
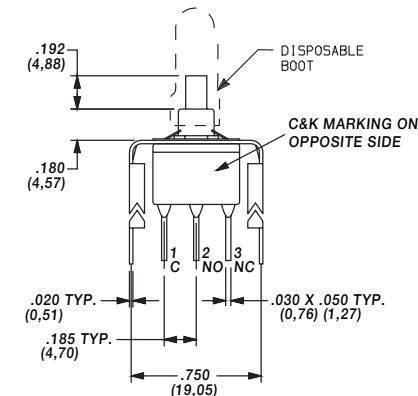


E221SD3_GE
DPDT

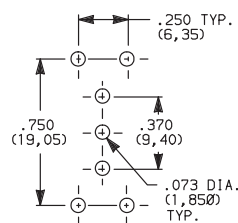
OPTION CODE	DIM 'A'
V3, V31	.460 (11,68)
V4, V41	.630 (16,00)

V6, V8 VERTICAL MOUNT, V-BRACKET

V61, V81 VERTICAL MOUNT, V-BRACKET, SNAP-IN

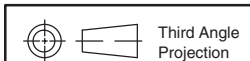


PC MOUNTING



E121SD3V_GE
SPDT

OPTION CODE	DIM 'A'
V6, V61	.460 (11,68)
V8, V81	.953 (24,21)



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





C&K E020 Series Sealed Snap-acting Momentary Pushbutton Switches

TERMINATIONS

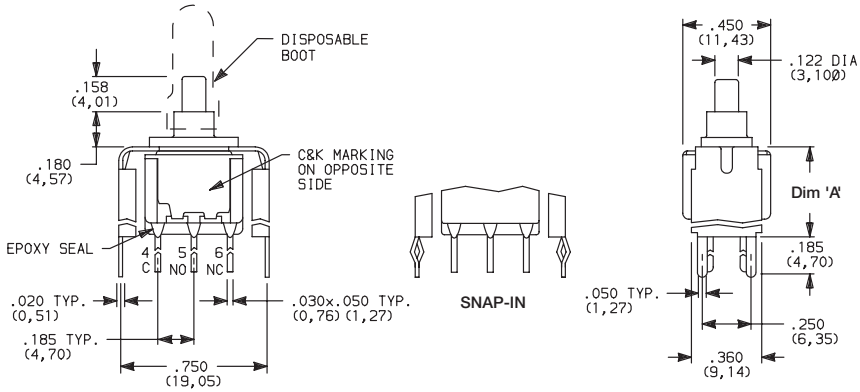
Pushbutton
A

V6, V8 VERTICAL MOUNT, V-BRACKET

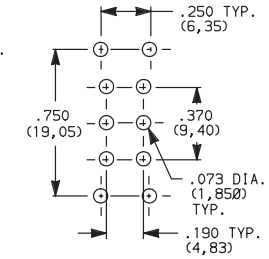
V61, V81 VERTICAL MOUNT, V-BRACKET, SNAP-IN



E221SD3V6GE
DPDT



PC MOUNTING



OPTION CODE	DIM 'A'
V6, V61	.460 (11,68)
V8, V81	.953 (24,21)

CONTACT MATERIAL

OPTION CODE	RoHS COMPLIANT *	RoHS COMPATIBLE *	CONTACT MATERIAL	TERMINAL PLATING	RATINGS	
					LOW LEVEL/DRY CIRCUIT	EX25 MODELS ONLY: 0.4 VA MAX. @ 20 V AC OR DC MAX.
B	YES	YES	GOLD ¹	GOLD ¹	LOW LEVEL/DRY CIRCUIT	EX25 MODELS ONLY: 0.4 VA MAX. @ 20 V AC OR DC MAX.
K	NO	YES		TIN-LEAD ⁴		
P	YES	YES		MATTE-TIN ⁵		
G	YES	YES	GOLD OVER SILVER ^{2,3}	GOLD ³	LOW LEVEL/DRY CIRCUIT OR POWER	EX21 MODELS ONLY: 0.4 VA MAX @ 20 V AC OR DC MAX. OR 1 AMP @ 120 V AC OR 28 V DC.
L	NO	YES		TIN-LEAD ⁴		
R	YES	YES		MATTE-TIN ⁵		

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

- ¹ CONTACTS & TERMINALS: Copper alloy, with gold plate over nickel plate.
- ² N.O. AND N.C. CONTACTS: Coin silver, with gold plate over nickel plate.
- ³ COMMON CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate.
- ⁴ TERMINALS: Copper alloy, with tin-lead alloy over nickel plate.
- ⁵ TERMINALS: Copper alloy, with matte-tin alloy over nickel plate.

NOTE: Any models supplied with P, R, B or G contact material are RoHS compliant. For the latest information regarding RoHS compliance, please go to: www.ittcannon.com/rohs.

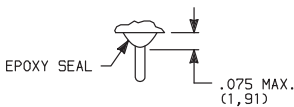
E121, E221 models with all options when ordered with mandatory G, R or L contact material.

P, B or K contact material must be ordered with EX25 models.

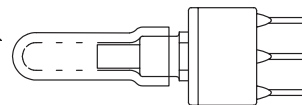
R, G or L contact material must be ordered with EX21 models.

SEAL

E EPOXY SEAL AND DISPOSABLE SPLASHPROOF BOOT



Disposable splashproof boot supplied standard. Remove and discard boot *only after* soldering and cleaning processes are complete.



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

C&K E020 Series Sealed Snap-acting Momentary Pushbutton Switches

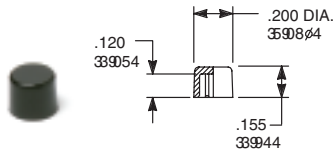


A

Pushbutton

AVAILABLE HARDWARE

Cap

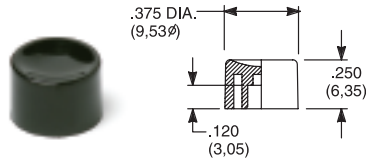


PART NO.

- 708901000** WHITE
- 708902000** BLACK
- 708903000** RED

Material: Nylon
Finish: Gloss

Cap

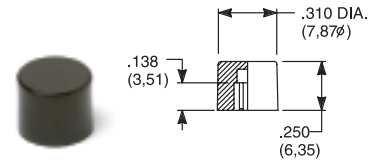


PART NO.

- 752701000** WHITE
- 752702000** BLACK
- 752703000** RED

Material: Nylon
Finish: Gloss

Cap

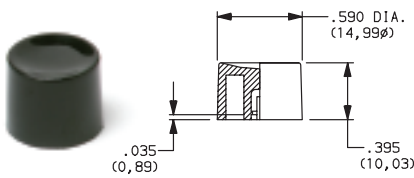


PART NO.

- 801801000** WHITE
- 801802000** BLACK
- 801803000** RED

Material: Nylon
Finish: Gloss

Cap, Snap-fitting plunger

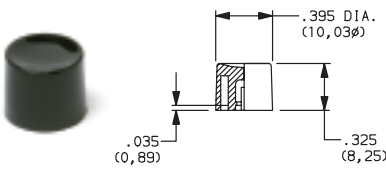


PART NO.

- 894001000** WHITE
- 894002000** BLACK
- 894003000** RED

Material: Nylon
Finish: Gloss

Cap, Snap-fitting plunger

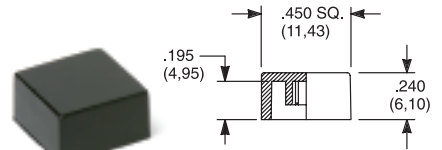


PART NO.

- 894101000** WHITE
- 894102000** BLACK
- 894103000** RED

Material: Nylon
Finish: Gloss

Cap



PART NO.

- 484601000** WHITE
- 484602000** BLACK
- 484603000** RED

Material: Nylon
Finish: Gloss

PART NO.

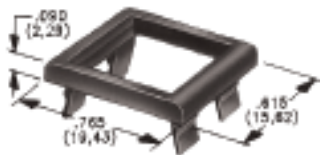
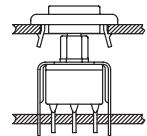
- 798201000** WHITE
- 798202263** BLACK
- 798203000** RED

Material: Nylon
Finish: Matte

NOTE: Other cap colors available consult Customer Service Center.

Frames snap into panel opening and are independent from switch mounting. Accurate positioning of the PC mounted switch relative to the panel opening is necessary to provide proper clearance between actuator and frame. Available in two basic styles and four panel thicknesses .047-.125 in. Material: Nylon. Finish: Matte.

TYPICAL APPLICATION



.047" (1,19) PANEL THK. .062" (1,57) PANEL THK. .090" (2,29) PANEL THK. .125" (3,18) PANEL THK.

PART NO.

- 432501000**
- 432502263**
- 432503000**

PART NO.

- 432601000**
- 432602263**
- 432603000**

PART NO.

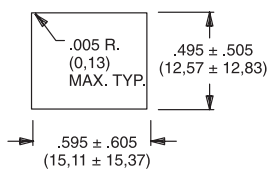
- 432701000**
- 432702263**
- 432703000**

PART NO.

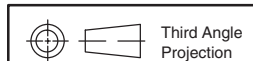
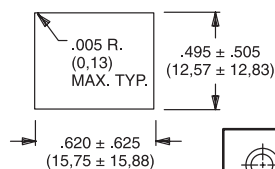
- 432801000** WHITE
- 432802263** BLACK
- 432803000** RED

PANEL MOUNTING

For part numbers
4325xxxxx, 4326xxxxx



For part numbers
4327xxxxx, 4328xxxxx



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





C&K E020 Series Sealed Snap-acting Momentary Pushbutton Switches

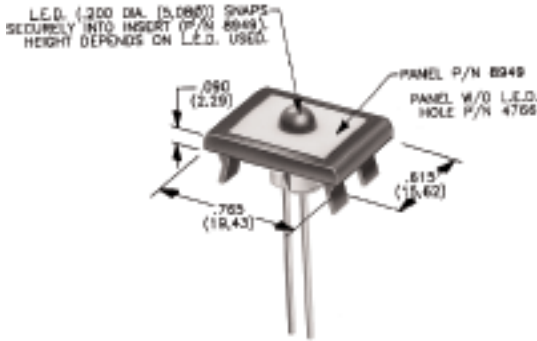
AVAILABLE HARDWARE

A

Pushbutton

PANEL INSERTS

Above frames (part nos. 432XXXXXX) are also available with insert which accepts LED for indicator light assembly. Order insert separately from frame. Blank insert panel (without hole for LED) also available. **LED not included.**



PANEL INSERT
WITH HOLE FOR LED

BLANK PANEL INSERT
WITHOUT HOLE FOR LED

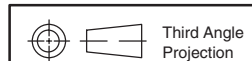
PART NO.

894901000
894902000
894903000

PART NO.

476601000 WHITE
476602000 BLACK
476603000 RED

Special colors, custom markings available, consult Customer Service Center.



Dimensions are shown: Inches (mm)

Specifications and dimensions subject to change

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

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[HG9Z-2D2](#) [61-9920.0](#) [61-9927.2](#) [PBBOX2HBY](#) [61-9924.0](#) [A3C-3002](#) [L188](#) [EUK-704.927.0](#) [SA1072-B](#) [SA1072](#) [EUK-704.927.4](#)
[DPS8SGB54](#) [L167](#) [W42](#) [L180](#) [M1080-2](#) [M539](#) [HE9Z-D5B](#) [AT9444-082G](#) [08-0-0-01 905](#) [08-0-0-02](#) [A165-CTA](#) [A22Z-EG2](#) [RA1540109](#)
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[E50SN](#) [AML55-T10YY](#) [5.49.275.032/1601](#) [704.927.6](#) [1.30070.2510100](#) [1.30070.2510500](#)