

C&K 8500 Series Subminiature Pushbutton Switches



Features/Benefits

- Pre-travel or over-travel models available
- Ratings up to 3 AMPS
- Reliable contact design

Typical Applications

- Detection
- Telecommunications and networking equipment
- Computers and peripherals



B

Pushbutton

Build-A-Switch

Our easy Build-A-Switch concept allows you to mix and match options to create the switch you need. Below is a complete listing of options shown in catalog. To order, simply select desired option from each category and place in the appropriate box. Switches with standard options are shown on page B-57. Available options are shown and described on pages B-69 thru B-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.

Typical Example: 8 5 3 1 — M — — Z — Q — E — 2 —

Switch Function

- 8531** (STD.) SPST Off-Mom. 1 Amp
- 8532** (STD.) SPST Off-Mom. 1 Amp
- 8533** (STD.) SPST On-Mom. 1 Amp
- 8534** SPST On-Mom. 1 Amp
- 8551** SPST Off-Mom. 3 Amps
- 8552** SPST Off-Mom. 3 Amps

Actuator or Plunger

- M** (STD.) .150" high
- J80** Snap-in
- J81** Snap-in with frame
- J82** Snap-in with frame & LED
- S** .210" high
- T** 15/32 bushing
- T1** 15/32 bushing with frame (8532 and 8534 only)

Terminations

- Z** (STD.) Solder lug
- A** Right angle, PC thru-hole
- AV** Right angle, PC thru-hole
- C** PC Thru-hole
- V3** Vertical, V-bracket
- V4** Vertical, V-bracket

Contact Material

- Q** (STD.) Silver
- B** Gold
- G** Gold over silver

Seal

- E** (STD.) Epoxy

Cap or Plunger Color

- 2** (STD.) Black
- 1** White
- 3** Red

Frame Color

- 2** (STD.) Black
- NONE** Models without frame
- 1** White
- 3** Red

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Specifications

CONTACT RATING: Q contact material (853X Models): 1 AMP @ 120 V AC or 28 V DC; (855X Models): 3 AMPS @ 120 V AC or 28 V DC. See page B-61 for additional ratings.

ELECTRICAL LIFE:

853X MODELS: 250,000 actuations at full load.

855X MODELS: 10,000 actuations at full load.

CONTACT RESISTANCE: Below 30 milliohms typ. initial @

2-4 V DC, 100 mA, for both silver and gold plated contacts.

INSULATION RESISTANCE: 10^9 ohms min.

DIELECTRIC STRENGTH: 1,000 V RMS min. @ sea level.

OPERATING TEMPERATURE: -30°C to 65°C .

Materials

CASE: Glass filled phenolic or diallyl phthalate (DAP) (UL 94V-0).

PLUNGER: Phenolic or glass filled polyester, black standard (UL 94V-0).

CAP & FRAME: Nylon, black, standard.

BUSHING: Brass, nickel plated.

CONTACTS: Q contact material: Coin silver, silver plated. See page B-61 for additional contact materials.

TERMINALS: Q contact material: Copper alloy, silver plated. See page B-61 for additional contact materials.

TERMINAL SEAL: Epoxy.

HARDWARE: Nut: Brass, nickel plated; Lockwasher: Steel, bright nickel plated.

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



B

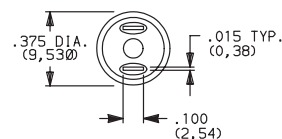
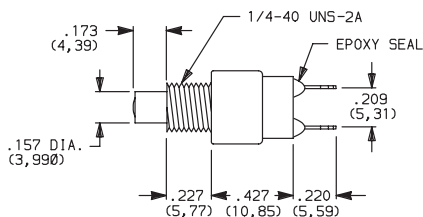
Pushbutton

SWITCHES WITH STANDARD OPTIONS

PART NUMBER	FUNCTION	POS. 1	POS. 2
8531MZQE2	SPST	OFF	MOM.

MOM. = Momentary

NOTE: For PC termination, replace 'Z' with 'C'.
For panel mounting information, see page B-58.
For PC mounting information, see page B-60.

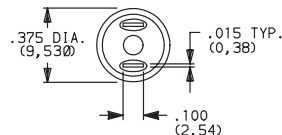
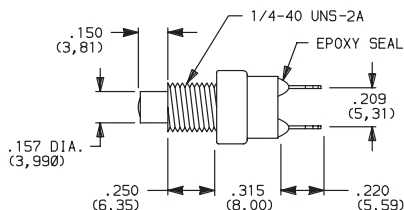


**8531MZQE2
SPST**

PART NUMBER	FUNCTION	POS. 1	POS. 2
8532MZQE2	SPST	OFF	MOM.

MOM. = Momentary

NOTE: For PC termination, replace 'Z' with 'C'.
For panel mounting information, see page B-58.
For PC mounting information, see page B-60.

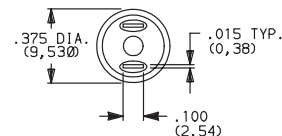
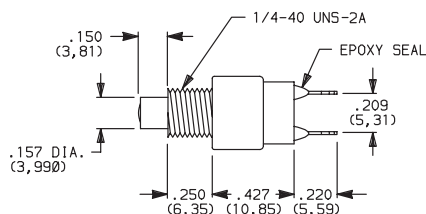


**8532MZQE2
SPST**

PART NUMBER	FUNCTION	POS. 1	POS. 2
8533MZQE2	SPST	ON	MOM.

MOM. = Momentary

NOTE: For PC termination, replace 'Z' with 'C'.
For panel mounting information, see page B-58.
For PC mounting information, see page B-60.



**8533MZQE2
SPST**

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SWITCH FUNCTION

NO. POLES	MODEL NO.	RATING	SWITCH FUNCTION		TOTAL TRAVEL	ACTUATION FORCE	SCHEMATIC
			POS. 1	POS. 2			
SP	8531 (STD.)	1 AMP	OFF	MOM.	.095 (2,41) TYP. w/ Overtravel .042 (1,07) TYP.	7.7 oz (220g) TYP.	N.O. W/OVERTRAVEL
	8551	3 AMPS					
	8532 (STD.)	1 AMP	OFF	MOM.	.050 (1,27) TYP.	6 oz (170g) TYP.	N.O.
	8552	3 AMPS					
	8533 (STD.)	1 AMP	ON	MOM.	.080 (2,03) TYP. w/ Pretravel .057 (1,45) TYP.	11.5 oz (326 g) TYP.	N.C. W/PRETRAVEL
	8534	1 AMP	ON	MOM.	.032 (0,81) TYP. w/ Overtravel .028 (0,71) TYP.	10.3 oz (292g) TYP.	N.C. W/OVERTRAVEL

MOM. = Momentary

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

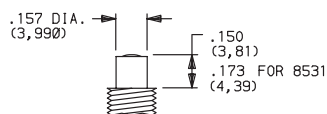


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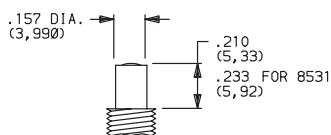
Pushbutton

PLUNGER

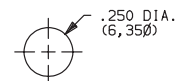
M (STD.) .150" HIGH PLUNGER



S .210" HIGH PLUNGER



PANEL MOUNTING

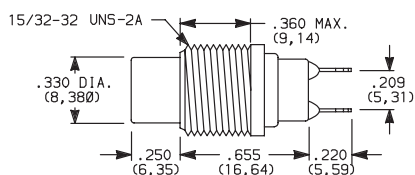


OPTION CODE	PLUNGER COLOR
2	(STD.) BLACK
3	RED

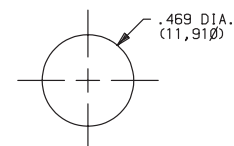
NOTE: One mounting nut and lockwasher supplied with all actuators (except T actuator: two nuts supplied).

ACTUATOR

T 15/32 BUSHING

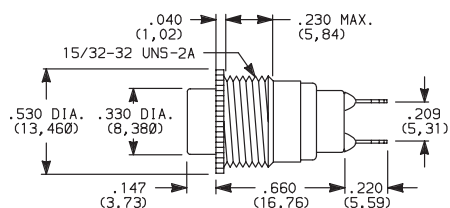


PANEL MOUNTING



NOTE: No frame color choice required.

T1 15/32 BUSHING WITH FRAME



OPTION CODE	CAP AND FRAME COLOR
2	(STD.) BLACK
1	WHITE
3	RED

T, T1 Cap Finish: gloss. Other colors available, consult Customer Service Center.

NOTE: One mounting nut and lockwasher supplied with all actuators (except T actuator: two nuts supplied).

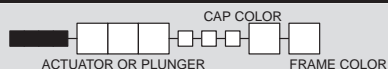
NOTE: No frame color choice required. Available with 8532 and 8534 models only.



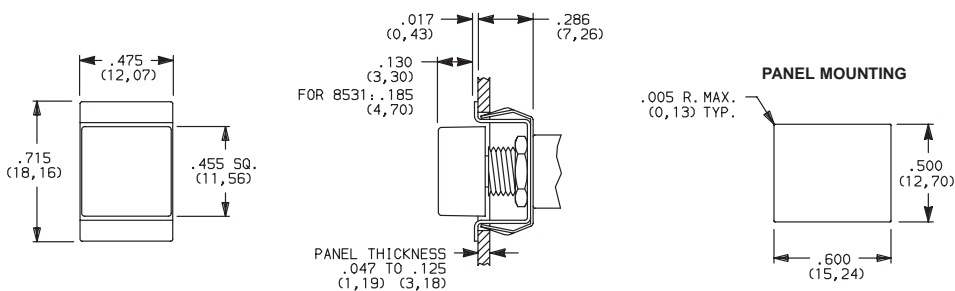
Cannon

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ACTUATOR—SNAP-IN FRONT MOUNT

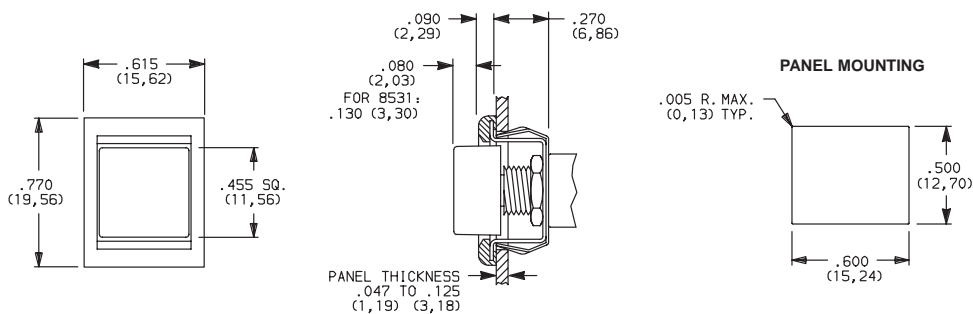


J80 SNAP-IN

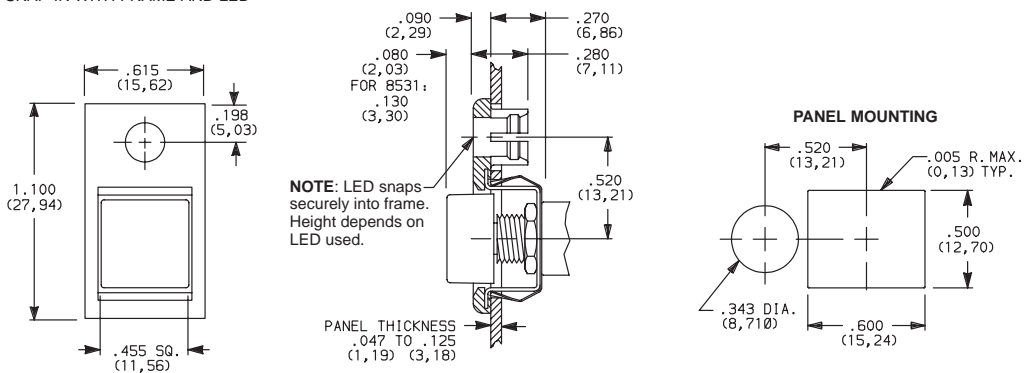


NOTE: No frame color choice required.

J81 SNAP-IN WITH FRAME



J82 SNAP-IN WITH FRAME AND LED



NOTE: LED snaps securely into frame. Height depends on LED used.



LED not included.
For LED information, see page L-30.

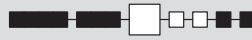
OPTION CODE	CAP AND FRAME COLOR
2	(STD.) BLACK
1	WHITE
3	RED

J80 & J81 Cap and Frame Finish: matte. Other colors available, consult Customer Service Center.

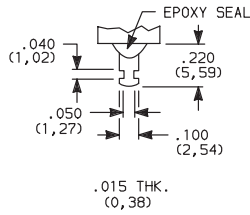
NOTE: One mounting nut and lockwasher supplied with all actuators (except T actuator: two nuts supplied).

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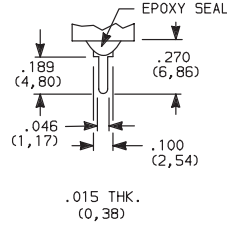
TERMINATIONS



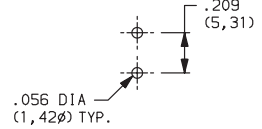
Z (STD.) SOLDER LUG



C PC THRU-HOLE



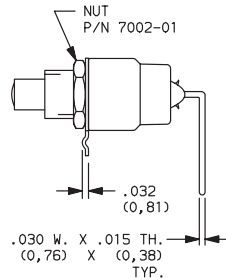
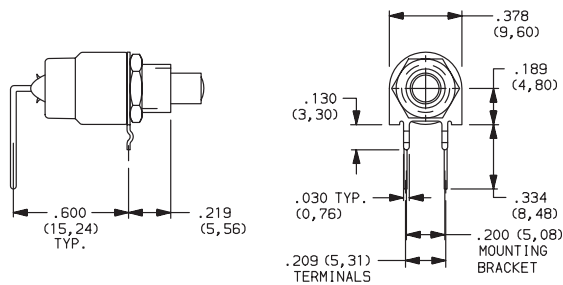
PC MOUNTING



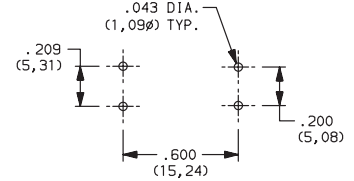
B

Pushbutton

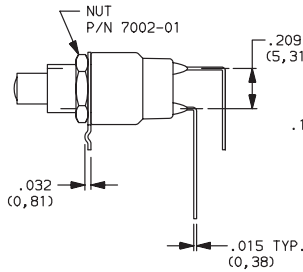
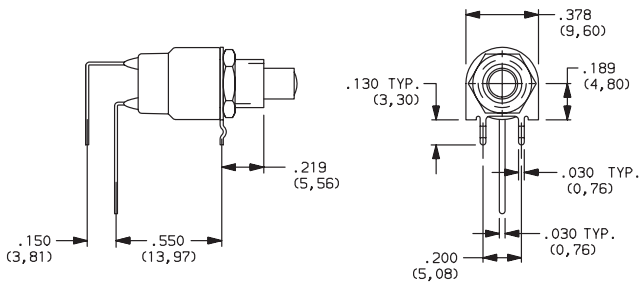
A RIGHT ANGLE, PC THRU-HOLE



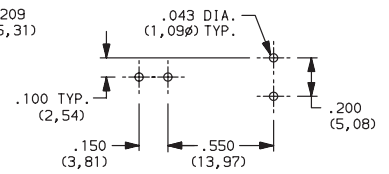
PC MOUNTING



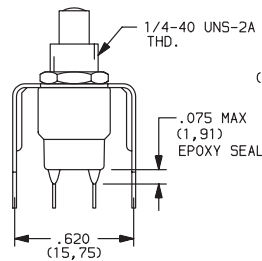
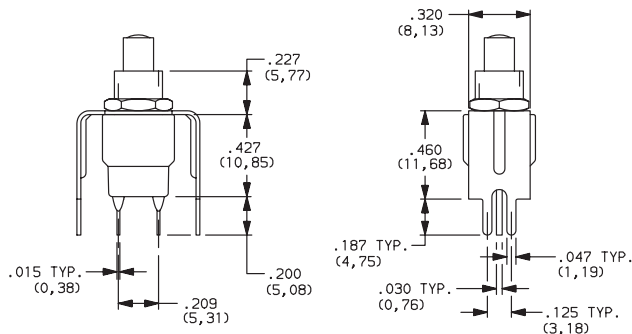
AV VERTICAL, RIGHT ANGLE, PC THRU-HOLE



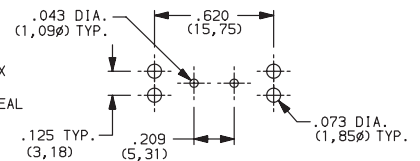
PC MOUNTING



V3 VERTICAL, V-BRACKET



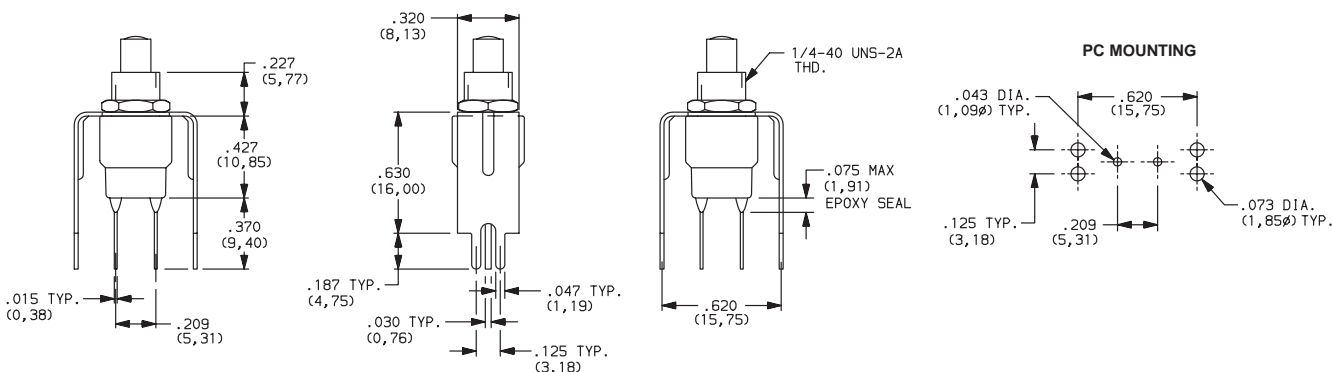
PC MOUNTING



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TERMINATIONS

V4 VERTICAL V-BRACKET



Pushbutton

CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS	
B	GOLD ¹	GOLD ¹	LOW LEVEL/DRY CIRCUIT	0.4 VA MAX. @20 V AC OR DC MAX.
Q (STD.)	SILVER ⁴	SILVER ⁵	POWER	853X MODELS: 1 AMP @ 120 V AC OR 28 V DC. 855X MODELS: 3 AMPS @ 120 V AC OR 28 V DC.
G	GOLD OVER SILVER ²	GOLD ³	LOW LEVEL/DRY CIRCUIT OR POWER	0.4 VA MAX @20 V AC OR DC MAX. OR 853X MODELS: 1 AMP @ 120 V AC OR 28 V DC. 855X MODELS: 3 AMPS @120 V AC OR 28 V DC.

CONTACT MATERIAL/APPLICATION RECOMMENDATIONS—SEE CHART, PAGE L-31.


¹ CONTACTS & TERMINALS: Copper alloy, with gold plate over nickel plate.

² CONTACTS: Coin silver, with gold plate over nickel plate.

³ TERMINALS: Copper alloy, with gold plate over nickel plate.

⁴ CONTACTS: Coin silver, silver plated.

⁵ TERMINALS: Copper alloy, silver plated.

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

Q contact material standard with C, Z terminations.

8551 & 8552 available with Q contact material only.

SEAL

E (STD.) EPOXY SEAL

