#### Features/Benefits

- Multi-pole and multi-position
- Wide variety of actuator and termination options
- Epoxy terminal-seal compatible with bottom wash cleaning
- RoHS compliant

#### Typical Applications

- **Telecommunications**
- Instrumentation
- Medical equipment





#### **Specifications**

CONTACT RATING: B contact material: 0.4 VA max. @ 20 V AC or DC max. Q contact material: 5 AMPS @ 120 V AC or 28 V DC; 2 AMPS @ 250 V AC. See page G-21 for additional ratings.

ELECTRICAL LIFE: 7X01 and UX1 models: 100,000 make-and-break cycles at full load. All other models: 40,000 cycles.

CONTACT RESISTANCE: Below 10 m  $\Omega$  tvp. initial @ 2-4 V DC, 100 mA, for both silver and gold plated contacts.

INSULATION RESISTANCE:  $10^9 \Omega$  min.

DIELECTRIC STRENGTH: 1000 Vrms min. @ sea level.

OPERATING TEMPERATURE: -30°C to 85°C.

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

NOTE: Any models supplied with S, P, R, 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

J62 Lever with frame for

J91 Lever with frame, snap-in

LED, snap-in

J90 Lever

#### **Materials**

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

ACTUATOR: Nylon, black.

FRAME (FRONT MOUNT): Nylon, black. FRAME (REAR MOUNT): Spring steel, black. BUSHING: Brass or zinc, nickel plated.

HOUSING: Stainless steel.

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

END CONTACTS: B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Coin silver, silver plated. See page G-21 for additional contact materials.

CENTER CONTACTS & ALL TERMINALS: B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Copper alloy, silver plated. See page G-21 for additional contact materials.

TERMINAL SEAL: Epoxy. Refer to Soldering and Cleaning in Technical Data Section

HARDWARE: Mounting nuts & screws: Brass. Lockwasher: Stainless steel. Standoff: Nylon standard.

#### **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 G-5 through G-25. 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 7101 SP On-None-On 7103 SP On-Off-On 7105 SP MomOff-Mom. 7107 SP On-Off-Mom. 7108 SP On-None-Mom. 7109 SP None-On-Mom. 7201 DP On-None-On 7203 DP On-Off-On 7205 DP MomOff-Mom.	101 SP On-None-On	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	Contact Material B Gold P Gold, matte tin Q Silver S Silver, matte-tin G Gold over silver R Gold over silver, matte-tin
7208 DP On-None-Mom. 7211 DP On-On-On 7213 DP On-On-Mom. 7215 DP MomOn-Mom. 7301 3P On-None-On 7303 3P On-Off-On 7401 4P On-None-On 7405 4P MomOff-Mom.	J19 Rocker with frame J21 Lever with frame J25 Lever, snap-in J26 Lever with frame, snap-in J37 Rocker with frame J50 Rocker J51 Rocker with frame J52 Rocker with frame	AW3 Right angle, extended, PC thru-hole V2 .555" high, V-bracket V3 .460" high, V-bracket V4 .630" high, V-bracket V5 Vertical right angle, PC thru-hole V6 .460" high, V-bracket V7 .630" high, V-bracket V8 .953" high, V-bracket	E Epoxy I Epoxy potted base  Actuator Color 2 Black Fran 1 White 2 B 3 Red NON 1 W
7411 4P On-On-On  Note: UL models available, see pages H-5	LED, snap-in J60 Lever J61 Lever with frame, snap-in	V9 1.150" high, V-bracket V31 .460" high, V-bracket, snap-in V51 Vertical right angle, snap-in	Meta (J11,

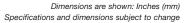
V61

W5

**Z**3

Rocker





Frame Color

J37 Actuators)

White

NONE No frame color required

**Metal Frame Color** (J11, J19, J21 &

2 Black

1 White

2 Black



available, see pages H-5

V51 Vertical right angle, snap-in

.750" long, wire wrap

1.305" long,wire wrap

W3 .425" long, wire wrap

Quick connect

.460" high, V-bracket, snap-in

# Rocker

## 7000 Series Miniature Rocker & Lever Handle Switches

#### **SWITCH FUNCTION** ----SWITCH FUNCTION **CONNECTED TERMINALS** POS. 1 POS. 2 POS. 3 POS. 1 POS. 2 POS. 3 UL\*\* MODEL C&K marking on opposite side MODEL NO. C&K marking on opposite side **SCHEMATIC** NO. 7101 **U11** ON NONE ON N/A 7103 **U13** ON OFF ON **U15** 2 (COMM) 7105 MOM. OFF MOM 2-3 OPEN 2-1 SP 7107 **U17** OFF MOM 7108 **U18** ON NONE MOM. N/A SPDT 7109 **U19** NONE MOM. 2-3 SPDT .275 (6,99) (2,03) TERM. WIDTH 25° .030 TYP. P05 3 🌶 .500 (12,70) 2 (29,36) .937 (23,80) EPOXY SEAL - .155 TYP. (3,94) .370 (9,40) .270 .094 DIA. (2,390) TYP. CASE WIDTH Terminal Nos. For Reference Only Part number shown: 7101J1ZQE2 **U21** 7201 ON NONE ON 7203 **U23** ON OFF ON **U25** 7205 MOM OFF MOM OPEN 7207 **U27** ON OFF MOM. 2-3.5-6 2-1.5-4 2 (COMM) **U28** 7208 NONE MOM 7211\* U211\* ON ON ON 7213\* U213\* ON MOM 2-3,5-4 ON 7215\* U215\* DPDT MOM ON MOM .275 (6,99) **DPDT** .040 (1,02) .030 TYP. 25° P05 3 🌶 .185 TYP. (4,70) P0S 2 .937 (23,80) P05 1 ๎๎๎๎ EPOXY SEAL .155 TYP. .080 TYP. (2,03) TERM. WIDTH .094 DIA. (2,390) TYP. .370 (9,40)

G-5

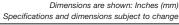
Part number shown: 7201J1ZQE2

\*\* U11 through U413 model nos. c W with all options when ordered with G, Q, R or S contact material.

\* Wiring for 3-way switch, see Section N.

Terminal Nos



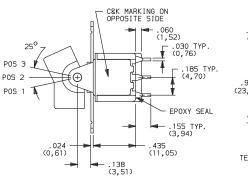


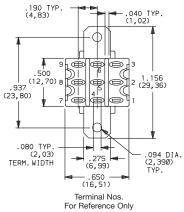


### SWITCH FUNCTION SWITCH FUNCTION

		SWITCH FUNCTION		гюн	CON	NECTED TERMIN			
			POS. 1	POS. 2	POS. 3	POS. 1	POS. 2	POS. 3	
NO. POLES	MODEL NO.	UL** MODEL NO.	C&K mari	king on opp	Asite side	C8K	marking on opposi	ta sida	SCHEMATIC
		NO.	Cartinan	king on opp	Usite side	Car	marking on opposi	le side	SCHEMATIC
3P	7301	U31	ON	NONE	ON	2-3,5-6,8-9	N/A	0.15.40.7	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	7303	U33	ON	OFF	ON	2-0,0-0,0-9	OPEN	2-1,5-4,8-7	3PDT

**3PDT** 



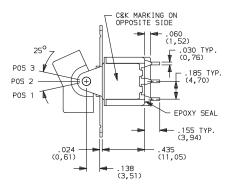


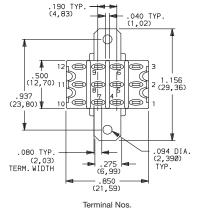
Part number shown: 7301J1ZQE2

	7401	U41	ON	NONE	ON		N/A		
4P	7405	U45	мом.	OFF	МОМ.	2-3,5-6,8-9,11-12	OPEN	2-1,5-4,8-7,11-10	1 • 2 5 • (COMM) • 1 • 6 7 •
	7411*	U411*	ON	ON	ON		2-3.5-4.8-9.11-10		4PDT

G-6

4PDT





For Reference Only

Part number shown: 7401J1ZQE2

MOM. = Momentary

\*\* U11 through U411 model nos. c with all options when ordered with G, Q, R or S contact material.

\* Wiring for 3-way switch: See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.

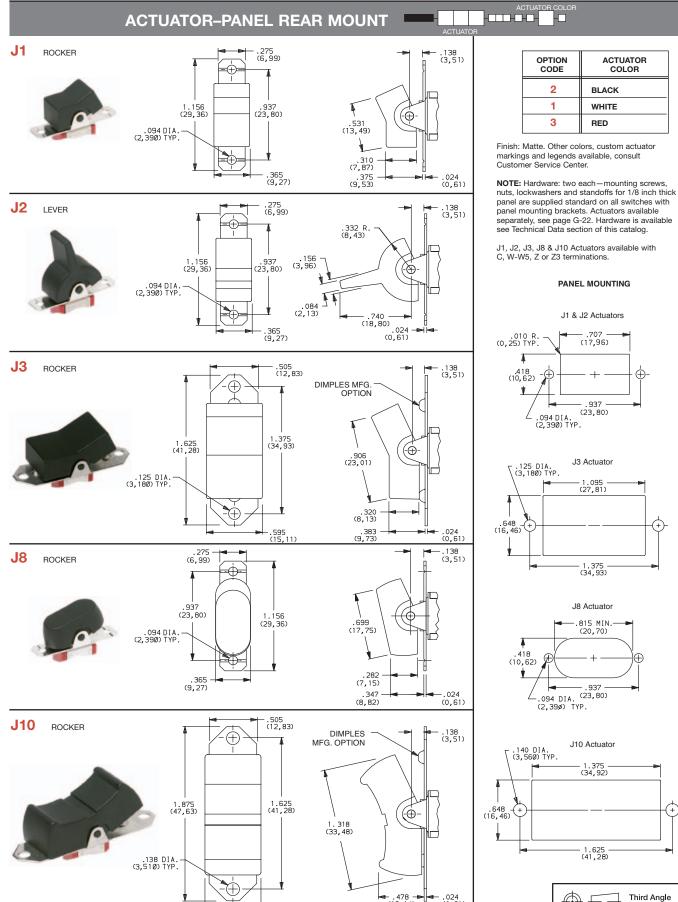


Rocker





www.ck-components.com



G

www.ck-components.com

Specifications and dimensions subject to change

Dimensions are shown: Inches (mm)

Projection

.595 (15,11)

## **ACTUATOR-SNAP-IN FRONT MOUNT**

	Τ	ACTUATOR COLOR
ACTU	ATOR	FRAME COLOR

OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE
3	RED

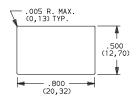
OPTION CODE	FRAME COLOR
2	BLACK
NONE	No Frame Color (J15 or J25options)
1	WHITE

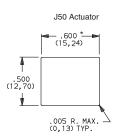
Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

NOTE: Actuators & frames available separately, see pages G-22 and G-25. J15, J16, J25, J26, J50 & J51 Actuators available with 71XX, 72XX, U1XX & U2XX models and C, W-W5, Z and Z3 terminations.

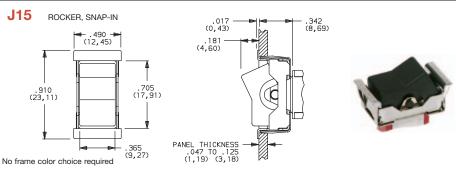
#### PANEL MOUNTING

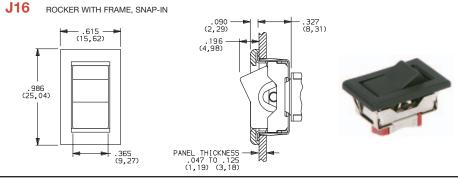
J15, J16, J25 & J26 Actuators

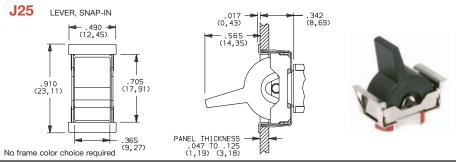




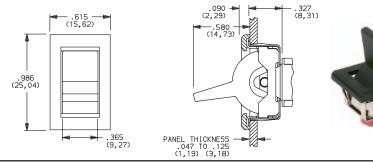
\* For J50: Increase this dimension to .620/.625 (15,75/15,88) for .091/.125 (2,31/3,18) thk. panels.

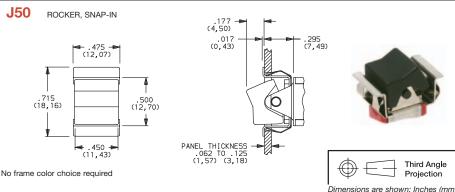








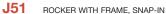


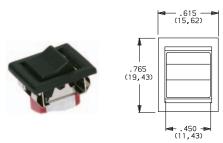


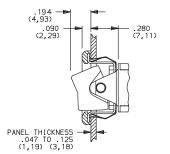


C&K MARKING THIS SIDE

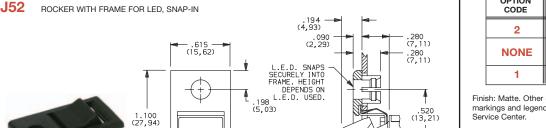






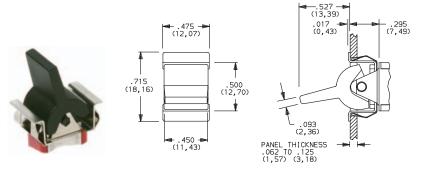


PANEL THICKNESS .047 TO .125 (1,19) (3,18)



LED not included. For LED information, see page H-24.

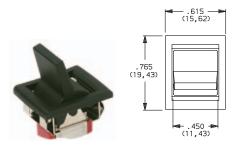
**J60** LEVER, SNAP-IN

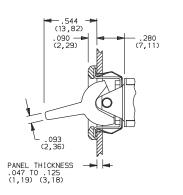


+ .450 + (11,43)

No frame color choice required

**J61** LEVER WITH FRAME, SNAP-IN





G-9

OPTION CODE	ACTUATOR COLOR	
2	BLACK	
1	WHITE	
3	RED	

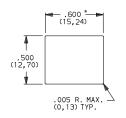
OPTION CODE	FRAME COLOR
2	BLACK
NONE	No Frame Color (J15 or J25 options)
1	WHITE

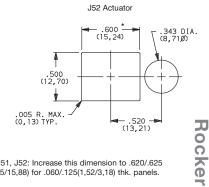
Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

NOTE: Actuators & frames available separately, see pages G-22 and G-25. J51, J52, J60 & J61 Actuators available with 71XX, 72XX, U1XX & U2XX models and C, W-W5, Z and Z3 terminations.

#### PANEL MOUNTING

J51, J60 & J61 Actuators





For J51, J52: Increase this dimension to .620/.625 (15,75/15,88) for .060/.125(1,52/3,18) thk. panels.



Dimensions are shown: Inches (mm)



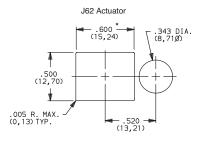
OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE
3	RED

OPTION CODE	FRAME COLOR
2	BLACK
NONE	No Frame Color (J90 options)
1	WHITE

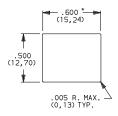
Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

NOTE: Actuators & frames available separately, see pages G-22 and G-25. J62, J90 & J91 Actuators available with 71XX, 72XX, U1XX & U2XX models and C, W-W5, Z & Z3 terminations.

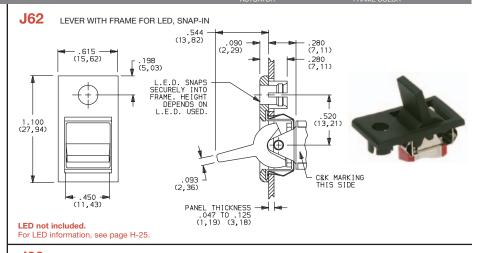
#### PANEL MOUNTING



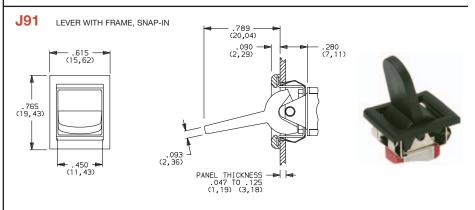
J90, J91 & J93 Actuators



\* For J90: Increase this dimension to .620/.625 (15,75/15,88) for .091/.125 (2,31/3,18) thk. panels. For J91: Increase this dimension to .620/.625 (15,75/15,88) for .060/.125 (1,52/3,18) thk. panels.

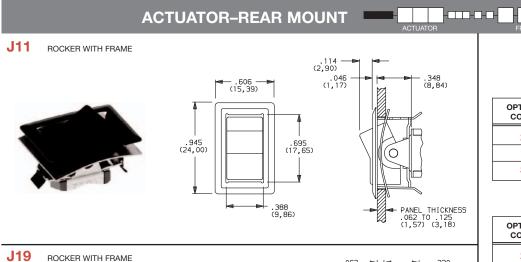


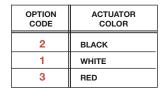
No frame color choice required.







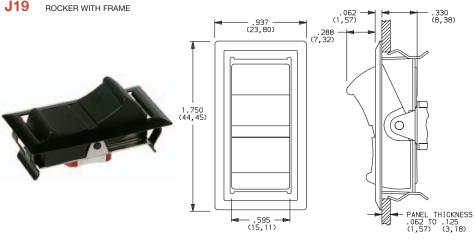




OPTION CODE	FRAME COLOR
2	BLACK
1	WHITE

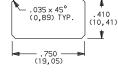
Actuator finish: Matte. Frame finish: Gloss. Other colors, custom actuator markings and legends available, consult Customer Service Center.

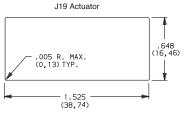
NOTE: Actuators & frames available separately, see pages G-22 and G-25. J11, J19, J21 & J37 Actuators available with C, W-W5, Z & Z3

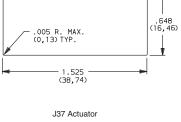


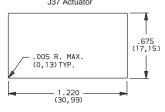
#### PANEL MOUNTING











(30,99)	
<b>(</b>	Third Angle Projection

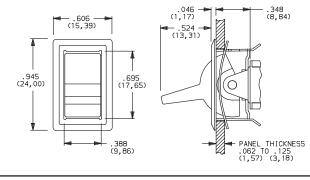
Dimensions are shown: Inches (mm) Specifications and dimensions subject to change



LEVER WITH FRAME

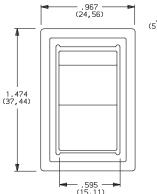
**J21** 

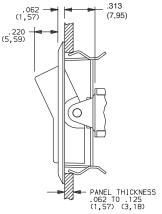
**J37** 





ROCKER WITH FRAME





G-11



## ACTUATOR-PC MOUNT

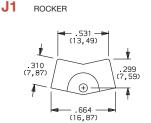
OPTION CODE COLOR

2 BLACK
1 WHITE
3 RED

Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

NOTE: Some permissible actuator/termination combinations may lack clearance between actuator and PC board, and care must be exercised to accommodate this condition.

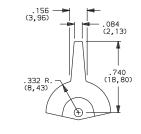
Actuators available separately, see page G-22. J1, J2 & J8 actuators available with A, A3, AV2, AV3, AW3 & V2 terminations. J3 actuators available with AV2, AV3 & V2-V61 terminations. J50 actuators available with A (DP, 3P models only), A3 (DP, 3P models only), AV2, AV3, AW3 (DP, 3P models only) & V2-V61 terminations.

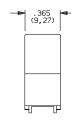






J2 LEVER







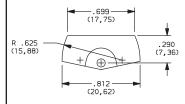
J3 ROCKER







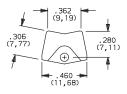
J8 ROCKER







J50 ROCKER











Third Angle Projection

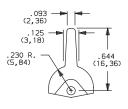


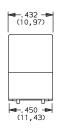


#### ACTUA ACTUATOR-PC MOUNT

**J60** LEVER







ACTUATOR COLOR OPTION CODE 2 **BLACK** WHITE 3 RED

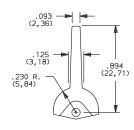
Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center

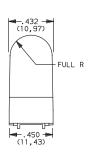
NOTE: Some permissible actuator/termination combinations may lack clearance between actuator and PC board, and care must be exercised to accommodate this condition

Actuators available separately, see page G-22. J60 & J90 actuators available with A (DP, 3P models only), A3 (DP, 3P models only), AV2, AV3, AW3 (DP, 3P models only) & V2-V61 terminations.

#### **J90** LEVER

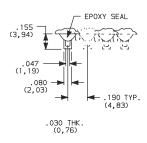






## **TERMINATIONS**

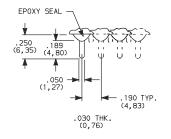
#### SOLDER LUG

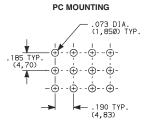


SPDT thru 4PDT

Not available with P, R or S contact materials. Available actuators, see pages G-7 through G-13.

#### PC THRU-HOLE

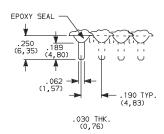




SPDT thru 4PDT

NOTE: Available actuators, see pages G-7 through G-13.

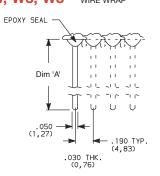
#### **Z**3 QUICK CONNECT



SPDT thru 4PDT

Not available with P, R or S contact materials. Available actuators, see pages G-7 through G-13. Mating quick connector available; order part number 530100000,

#### W, W3, W5 WIRE WRAP



OPTION CODE	DIM 'A'	
w	.750 (19,05)	
W3	.425 (10,80)	
W5	1.305 (33,15)	

#### SPDT thru 4PDT

**NOTE:** Available actuators, see pages G-7 through G-13.



Dimensions are shown: Inches (mm)



Specifications and dimensions subject to change



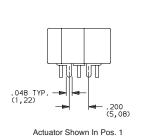
Rocker

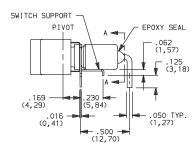
## 7000 Series

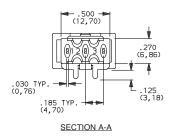
## Miniature Rocker & Lever Handle Switches

### **TERMINATIONS**

RIGHT ANGLE, PC THRU-HOLE



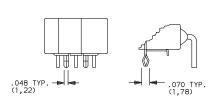




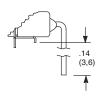


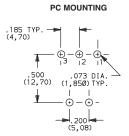
7101J1ABE2 Horizontal Actuation **SPDT** 

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



AW3 RIGHT ANGLE, EXTENDED, PC THRU-HOLE

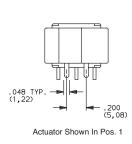


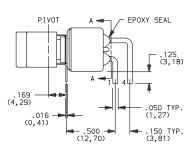


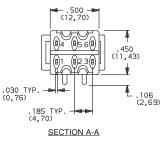
Not available with I seal option. Available actuators, see pages G-7 and G-13. Terminal bend radii and lead-in manufacturing option.

NOTE: PC pattern must clear switch support leg.

RIGHT ANGLE, PC THRU-HOLE



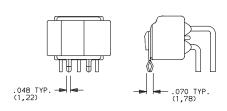






7201J1ABE2 Horizontal Actuation **DPDT** 

RIGHT ANGLE, SNAP-IN, PC THRU-HOLE



Not available with I seal option. Available actuators, see pages G-7 and G-13. Terminal bend radii and lead-in manufacturing option.

## PC MOUNTING .185 TYP. (4,70) (3,81) (3,81)



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



Rocker

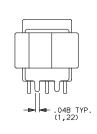


## **TERMINATIONS**

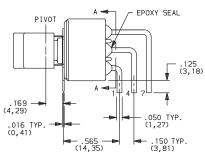
RIGHT ANGLE, PC THRU-HOLE

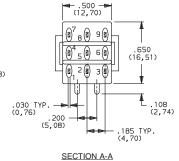


7301J1ABE2 Horizontal Actuation 3PDT

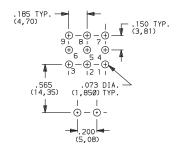


Actuator Shown In Pos. 1





#### PC MOUNTING



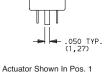
Not available with I seal option. Available actuators, see pages G-7 and G-13. Terminal bend radii and lead-in manufacturing option.

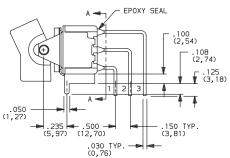
AV2

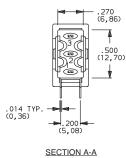
VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH



7101J1AV2BE2 Vertical Actuation **SPDT** 

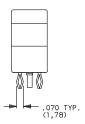


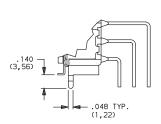




AV3

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

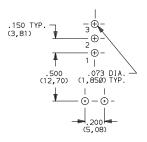




G-15

Not available with I seal option. Available actuators, see pages G-7 and G-13. Terminal bend radii and lead-in manufacturing option.

#### PC MOUNTING







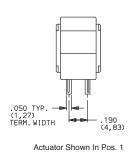
## 7000 Series

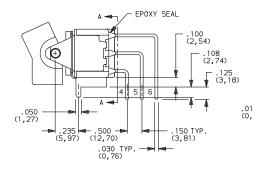
## Miniature Rocker & Lever Handle Switches

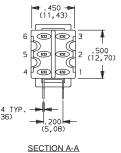
### TERMINATIONS ----

AV2

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





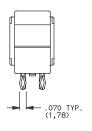


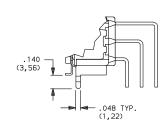


7201J1AV2BE2 Vertical Actuation DPDT

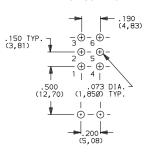
AV3

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





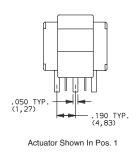
PC MOUNTING

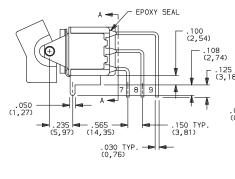


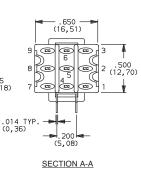
Not available with I seal option. Available actuators, see pages G-7 and G-13. Terminal bend radii and lead-in manufacturing option.

#### AV2

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





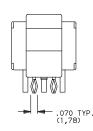


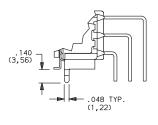


7301J1AV2BE2 Vertical Actuation **3PDT** 

AV3

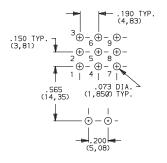
VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150" PITCH





Not available with I seal option. Available actuators, see pages G-7 and G-13. Terminal bend radii and lead-in manufacturing option.

#### PC MOUNTING





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

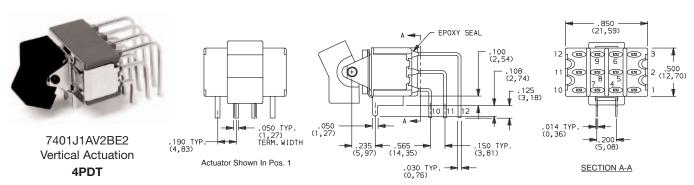


Rocker



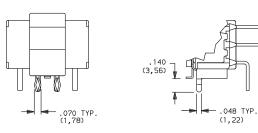
#### **TERMINATIONS**

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



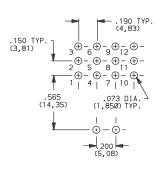
AV3

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



Not available with I seal option. Available actuators, see pages G-7 and G-13. Terminal bend radii and lead-in manufacturing option.

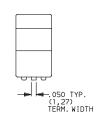
PC MOUNTING



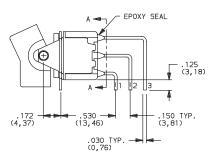
VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH

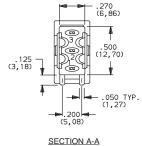


7101J1V5BE2 Vertical Actuation **SPDT** 

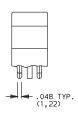


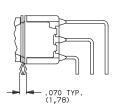
Actuator Shown In Pos. 1





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

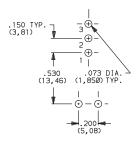




G-17

Not available with I seal option. Available actuators, see pages G-7 and G-13. Terminal bend radii and lead-in manufacturing option.

#### PC MOUNTING



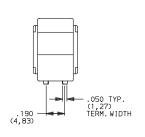


Dimensions are shown: Inches (mm)

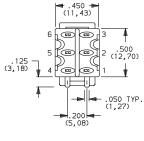


#### **TERMINATIONS**

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



- EPOXY SEAL .125 (3,18) .150 TYP. (3,81) - .530 -(13,46)



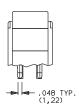


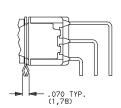
Actuator Shown In Pos. 1

7201J1V5BE2 SECTION A-A Vertical Actuation

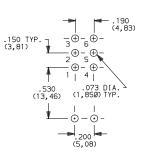
DPDT

**V51** VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150" PITCH





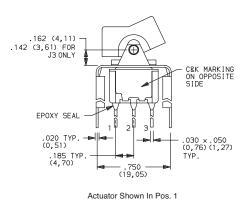
PC MOUNTING

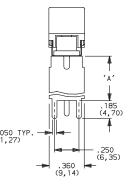


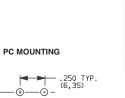
Not available with I seal option. Available actuators, see pages G-7 and G-13. Terminal bend radii and lead-in manufacturing option.

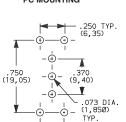
V2, V6, V7, V8 VERTICAL MOUNT, V-BRACKET

VERTICAL MOUNT, V-BRACKET, SNAP-IN











7101J1\_BE2 **SPDT** 

DIM 'A'
.555 (14,10)
.460 (11,68)
.630 (16,00)
.953 (24,21)

Not available with I seal option. Available actuators, see pages G-7 and G-13.





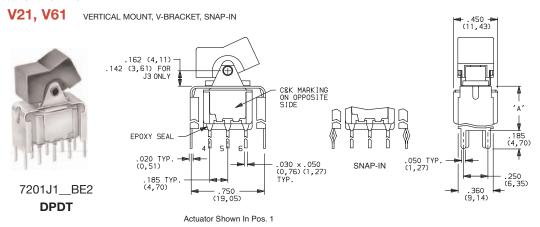
Third Anale Projection



## 7000 Series







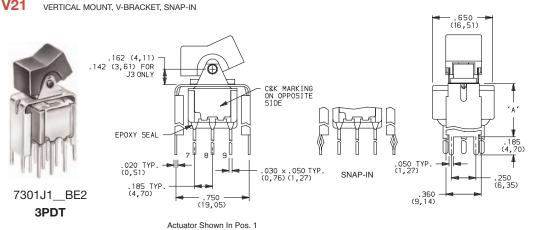
**TERMINATIONS** 

PC MOUNTING .250 TYP. (H)· -⊙ -(+)-(+) .750 (19,05) -(+)-٧ .073 DIA. (1,85Ø) TYP. .190 TYP. (4,83)

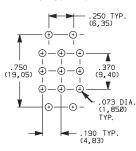
OPTION CODE	DIM 'A'
V2, V21	.555 (14,10)
V6, V61	.460 (11,68)
V7	.630 (16,00)
<b>V</b> 8	.953 (24,21)

Not available with I seal option. Available actuators, see pages G-7 and G-13.

**V2, V7, V8** VERTICAL MOUNT, V-BRACKET



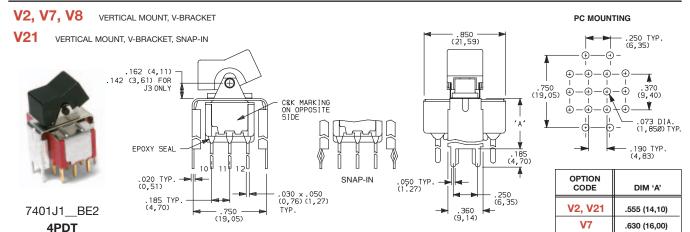
Actuator Shown In Pos. 1



PC MOUNTING

OPTION CODE	DIM 'A'
V2, V21	.555 (14,10)
<b>V7</b>	.630 (16,00)
<b>V</b> 8	.953 (24,21)

Not available with I seal option. Available actuators, see pages G-7 and G-13.



G-19

Not available with I seal option. Available actuators, see pages G-7 and G-13.



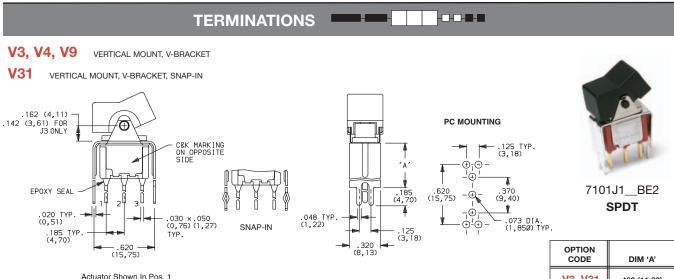
.953 (24,21)

Dimensions are shown: Inches (mm)

**V**8

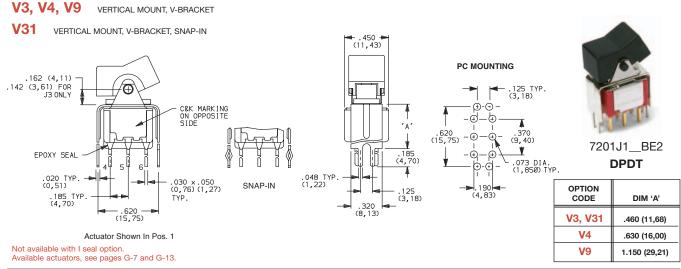
Specifications and dimensions subject to change



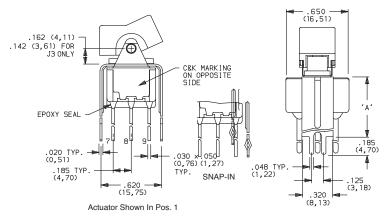


Not available with I seal option. Available actuators, see pages G-7 and G-13.

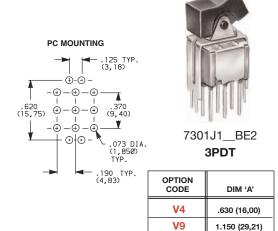
Actuator Shown In Pos. 1 V3, V31 .460 (11,68) **V**4 .630 (16,00) 1.150 (29,21)







Not available with I seal option. Available actuators, see pages G-7 and G-13.

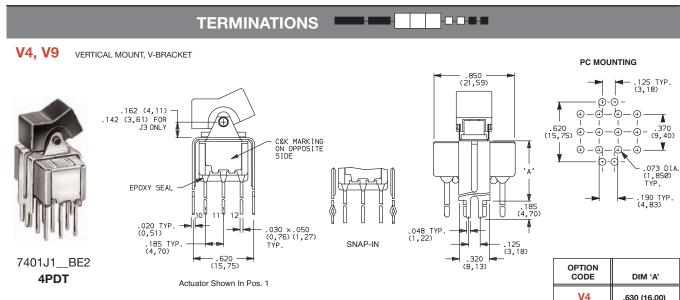


$\oplus \Box$	Third Angle Projection

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



Rocker



Not available with I seal option. Available actuators, see pages G-7 and G-13.

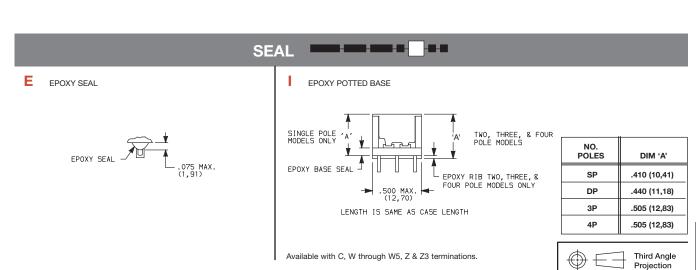
### **CONTACT MATERIAL**

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS	
В	COLD 1	GOLD <sup>1</sup>	LOW LEVEL/	
Р	GOLD <sup>1</sup>	MATTE-TIN <sup>6</sup>	DRY CIRCUIT	0.4 VA MAX. @ 20 V AC OR DC MAX.
Q	2017-15	SILVER 5	BOWER	5 44400 0 400 0 40 00 00 00 00 00 00 00 0
S	SILVER <sup>4,5</sup>	MATTE-TIN 6	POWER	5 AMPS @ 120 V AC OR 28 V DC; 2 AMPS @ 250 V AC.
G	GOLD OVER SILVER <sup>2,3</sup>	GOLD <sup>3</sup>	LOW LEVEL/DRY	0 4 VA MAX @ 20 V AC OR DC MAX OR 5 AMPS @
R	GOLD OVER SILVER	MATTE-TIN <sup>6</sup>	CIRCUIT OR POWER	120 V AC OR 28 V DC; 2 AMPS @ 250 V AC.

- \* 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.
- $^{2}$  END CONTACTS: Coin silver, with gold plate over nickel plate.  $^{\mbox{\scriptsize 3}}$  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.
- $^{\mbox{\scriptsize 6}}$  TERMINALS: Copper alloy, with matte-tin over nickel plate.

- U11-U415 model numbers chairs with all options when ordered with G, Q, S & R 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.

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



G-21

C&K

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

.630 (16,00)

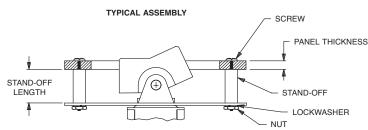
1.150 (29,21)

**V**9



#### **AVAILABLE HARDWARE**

Panel mounting hardware for rocker and lever handle switches is available separately. Mounting hardware consists of two screws, two nuts, two standoffs and two lockwashers per switch, and is available for panel thicknesses of 1/16, 3/32 and 1/8 inch. See part numbers below.



#### J1 & J2 actuators

PART NO.	PANEL THK.	STANDOFF LENGTH
761103000	1/8 IN. (3,18)	.233 (5,92)

#### J3 actuators

PART NO.	PANEL THK.	STANDOFF LENGTH
770603000	1/8 IN. (3,18)	.233 (5,92)

#### J10 actuators

PART NO.	PANEL THK.	STANDOFF LENGTH
770703000	1/8 IN. (3,18)	.233 (5,92)

#### MATERIAL

Screws, nuts, lockwashers: Stainless steel. Standoffs: Nylon, standard.





PART NO. 776A01000 WHITE 776A02263 BLACK

776A03000 RED Material: Nylon Finish: Matte

J50, J51 & J52 Actuators



PART NO.

775A01000 WHITE 775A02263 BLACK 775A03000 RED

Material: Nylon Finish: Matte

#### J2, J21, J25 & J26 Actuators



PART NO.

426D01000 WHITE 426D02263 BLACK 426D03000 RED

Material: Nylon Finish: Matte

J60, J61 & J62 Actuators



PART NO.

598101000 WHITE 613802263 BLACK 598103000 RED

Material: Nylon Finish: Matte





PART NO.

431D01000 WHITE 431D02263 BLACK 431D03000 RED

Material: Nylon Finish: Matte

J8 Actuator



PART NO.

488701000 WHITE 488702263 BLACK 488703000 RED

Material: Nylon Finish: Matte





#### **AVAILABLE HARDWARE**

J90 & J91 Actuators



Fits Z3 Termination female connector







PART NO.

598001000 WHITE 598002263 BLACK 598003000 RED

Frame for J11 & J21 Actuators

Material: Nylon Finish: Matte

PART NO.

769501000 WHITE 769502263 BLACK 769503000 RED

Material: Nylon Finish: Matte

PART NO.

530100000

Available in loose pieces.





Frame for J16 & J26 Actuators

Frame for J51, J61 & J91 Actuators









764500746 BLACK ENAMEL 764500747 WHITE ENAMEL 764601106 RETAINING SPRING

Material: Spring Steel Frame for J19 Actuator PART NO.

459101000 WHITE 459102000 BLACK 459103000

Material: Nylon Finish: Matte

PART NO.

615601000 WHITE 615602263 BLACK 615603000

Material: Nylon Finish: Matte

Frame for J37 Actuator

Frame for J52 & J62 Actuators





781000746 BLACK ENAMEL 781000747 WHITE ENAMEL

Material: Spring Steel





PART NO.

445400746 BLACK ENAMEL 445400747 WHITE ENAMEL

Material: Spring Steel



PART NO.

613301000 WHITE 613302263 BLACK 613303000 RED

Material: Nylon Finish: Matte









#### **AVAILABLE HARDWARE**

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



J1 & J2 Actuators



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

PART NO. 452902263 PART NO. 452702263 PART NO. 452802263 PART NO.

452602263 BLACK

J50, J60 & J90 Actuators

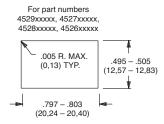


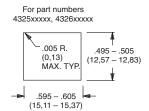
.047" (1,19) PANEL THK. .062" (1,57) PANEL THK. .090" (2,29) PANEL THK. .125" (3,18) PANEL THK.

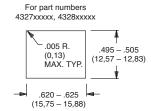
PART NO. 432502263 PART NO. 432602263 PART NO. 432702263 PART NO.

432802263 BLACK

PANEL MOUNTING











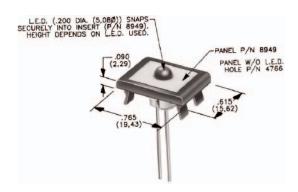


### **AVAILABLE HARDWARE**

Panel Inserts

Will fit Separate Snap-in frames for J50, J60 & J90 actuators

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.

894902000

PART NO.

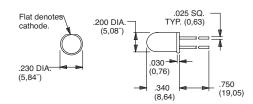
476602000 BLACK

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

#### **LED INFORMATION**

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

LEDs are not supplied with J52, J62 options. LED snaps into switch frame surrounding actuator and is wired externally.



Suggested LED for J52 & J62 options. Dimensions for reference only.





