





# **Rockers Product Selection Guide**

Rocker							
Series	7000	E	ET	т	9000	DA	D
Switch Type	Miniature	Miniature	Subminiature	Subminiature	Power Rocker & Lever Handle	Miniature Power	Miniature Power
Poles/Throws	SPDT, DPDT, 3PDT, 4PDT	SPDT, DPDT, 3PDT	SPST, SPDT, DPDT	SPST, SPDT, DPDT	DPDT	SPST, SPDT	SPST, SPDT DPST, DPDT
Max. Current	5 Amps	7.5 Amps	3 Amps	3 Amps	10 Amps	16 Amps 10 Amps	4 Amps 10 Amps
Washable		•	•				
Illuminated						٠	
Panel Mount Options							
Front Mount	•	•		•	•	Snap-in	Snap-in
Rear Mount	•	٠		٠	٠		
PCB Mount Options							
Vertical	•	•	•	•	•	•	•
Right Angle	•	•	•	•	•	•	•
Surface Mount			•				
Page No.	G–4	G–26	G–40	G–46	G–52	G–57	G–61

Rocker					<b>T</b>		
Series	DM	DM	DF	CR	SW	CG	CL
Switch Type	Miniature 2 Pole Power	Miniature Illuminated Power	Power	Round	Miniature Power	Power	Power
Poles/Throws	DPST, DPDT	SPST, DPST	SPST, SPDT, DPST	SPST, SPDT	SPST, SPDT, DPST	SPST, SPDT	SPST, SPDT
Max. Current	3 Amps, 10 Amps	3 Amps, 10 Amps	16 Amps	10 Amps, 6 Amps	3 A, 6 A, 6.5 A, 10 A, 16 A	10 Amps 16 Amps	10 Amps 16 Amps
Washable							
Illuminated		٠		٠	•	•	•
Panel Mount Options							
Front Mount	Snap-in	Snap-in	Snap-in	Snap-in	Snap-in	Snap-in	Snap-in
Rear Mount			•				
PCB Mount Options							
Vertical							
Right Angle			•				
Surface Mount							
Page No.	G–66	G–70	G–74	G–78	G–82	G-83	G-87

Rocker

# **Rockers Product Selection Guide**

Rocker		
Series	СМ	CN
Switch Type	Power	Power
Poles/Throws	SPDT, DPDT	DPST, DPDT
Max. Current	10 Amps 16 Amps	10 Amps 16 Amps
Washable		
Illuminated	•	•
Panel Mount Options		
Front Mount	Snap-in	Snap-in
Rear Mount		
PCB Mount Options		
Vertical		
Right Angle		
Surface Mount		
Page No.	G–91	G–95

Rocker

G



#### Features/Benefits

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



#### 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-20 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  $\Omega$  typ. 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.

Typical Applications

- Telecommunications
- Instrumentation
- Medical equipment



#### 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.

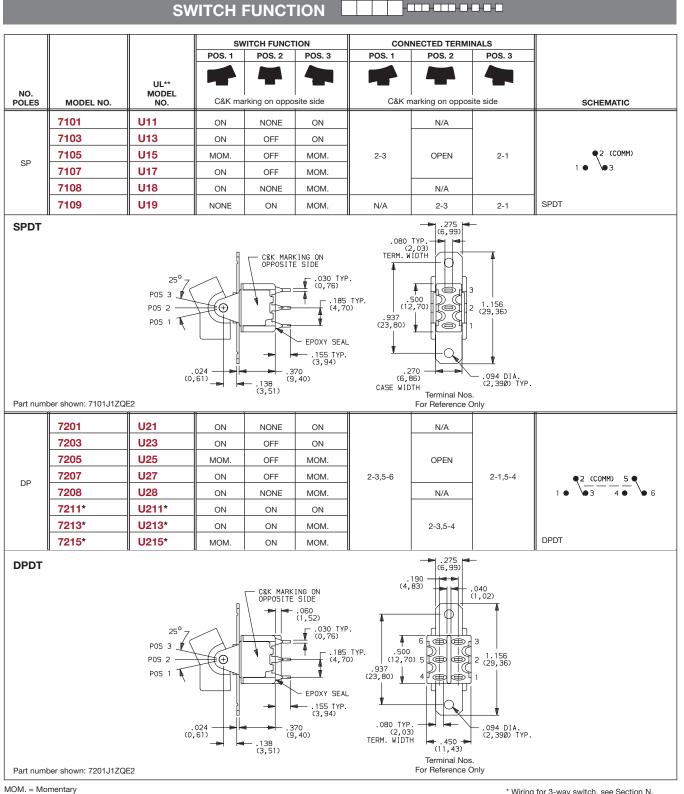
- END CONTACTS: B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Coin silver, silver plated. See page G-20 for additional contact materials.
- CENTER CONTACTS & ALL TERMINALS: B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Copper alloy, silver plated. See page G-20 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-4 through G-24. 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.

7105       SP MolnOlf-Moln.       J2       Le         7107       SP On-Off-Mom.       J3       .9         7108       SP On-None-Mom.       J10       1.         7109       SP None-On-Mom.       J10       1.         7201       DP On-None-On       J11       Rc         7203       DP On-Off-On       J15       Rc         7205       DP MomOff-Mom.       J19       Rc         7207       DP On-Off-Mom.       J21       Le         7208       DP On-On-On       J26       Le         7211       DP On-On-Mom.       J37       Rc         7215       DP MomOn-Mom.       J37       Rc         7301       3P On-None-On       J50       Rc         7303       3P On-Off-On       J52       Rc         7401       4P On-None-On       J60       Le         7411       4P On-On-On       J60       Le         7411       4P On-On-On       J61       Le         Available, see pages G-5       J62       Le       J64         J90       Le       J90       Le	31 long rockerTermineverAF06" long rockerA V2318" long rockerC50cker with frameZ50cker, snap-inA350cker with frameA350cker with frameA36ver, snap-inA350cker with frameV26ver, snap-inV36ver with frameV450cker with frameV46ver with frameV450cker with frameV650cker with frame forV750cker with frame forV36ver with frame forV36ver with frame forV37V36ver with frame forV37V36ver with frame forV57V61 <th>nations         Right angle, PC thru-hole         /ertical right angle, PC thru-hole         PC Thru-hole         Solder lug         Right angle, snap-in, PC thru-hole         /ertical right angle,         Right angle, extended, PC thru-hole         /ertical right angle,         Right angle, extended, PC thru-hole         555" high, V-bracket         630" high, V-bracket         640" high, V-bracket         630" high, V-bracket         630" high, V-bracket         640" high, V-bracket         630" high, V-bracket         640" high, V-bracket         630" high, V-bracket         640" high, V-bracket         953" high, V-bracket         1.150" high, V-bracket, snap-in         /ertical right angle, snap-in         460" high, V-bracket, snap-in         750" long, wire wrap         .305" long, wire wrap         .305" long, wire wrap         .305" long, wire wrap         .305" long, wire wrap</th> <th><ul> <li>Gold, matte tin</li> <li>Silver</li> <li>Silver, matte-tin</li> <li>Gold over silver</li> <li>Gold over silver, ma</li> </ul> Seal</th> <th></th>	nations         Right angle, PC thru-hole         /ertical right angle, PC thru-hole         PC Thru-hole         Solder lug         Right angle, snap-in, PC thru-hole         /ertical right angle,         Right angle, extended, PC thru-hole         /ertical right angle,         Right angle, extended, PC thru-hole         555" high, V-bracket         630" high, V-bracket         640" high, V-bracket         630" high, V-bracket         630" high, V-bracket         640" high, V-bracket         630" high, V-bracket         640" high, V-bracket         630" high, V-bracket         640" high, V-bracket         953" high, V-bracket         1.150" high, V-bracket, snap-in         /ertical right angle, snap-in         460" high, V-bracket, snap-in         750" long, wire wrap         .305" long, wire wrap         .305" long, wire wrap         .305" long, wire wrap         .305" long, wire wrap	<ul> <li>Gold, matte tin</li> <li>Silver</li> <li>Silver, matte-tin</li> <li>Gold over silver</li> <li>Gold over silver, ma</li> </ul> Seal	
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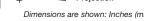
\*\* U11 through U413 model nos. CNUs with all options when ordered with G, Q, R or S contact material.

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

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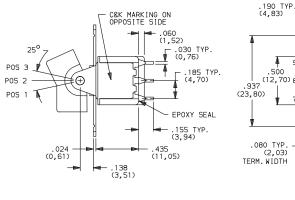


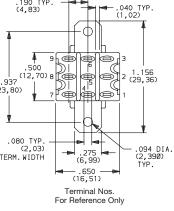




			SWITCH FUNCTION		CONNECTED TERMINALS				
			POS. 1	POS. 2	POS. 3	POS. 1	POS. 2	POS. 3	
NO. POLES	MODEL NO.	UL** MODEL NO.	C&K mar		osite side	C&K	marking on opposi	te side	SCHEMATIC
ЗР	7301	U31	ON	NONE	ON	2-3,5-6,8-9	N/A	2-1,5-4,8-7	1 • 2 <u>5</u> (COMM) <u>8</u> <u>9</u>
	7303	U33	ON	OFF	ON	,_ 0,0 0	OPEN	2 .,0 4,0 7	3PDT

**3PDT** 

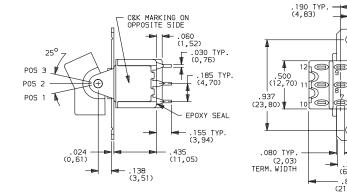


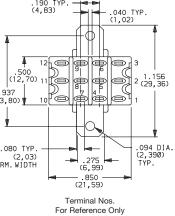


Part number shown: 7301J1ZQE2

	7401	U41	ON	NONE	ON		N/A		
4P	7405	U45	MOM.	OFF	MOM.	2-3,5-6,8-9,11-12	OPEN	2-1,5-4,8-7,11-10	$1 \xrightarrow{0} 3 \xrightarrow{0} 4 \xrightarrow{0} 6 \xrightarrow{0} 7 \xrightarrow{0} 9 \xrightarrow{0} 11 \xrightarrow{0} 12$
	7411*	U411*	ON	ON	ON		2-3,5-4,8-9,11-10		4PDT

4PDT





Part number shown: 7401J1ZQE2

G

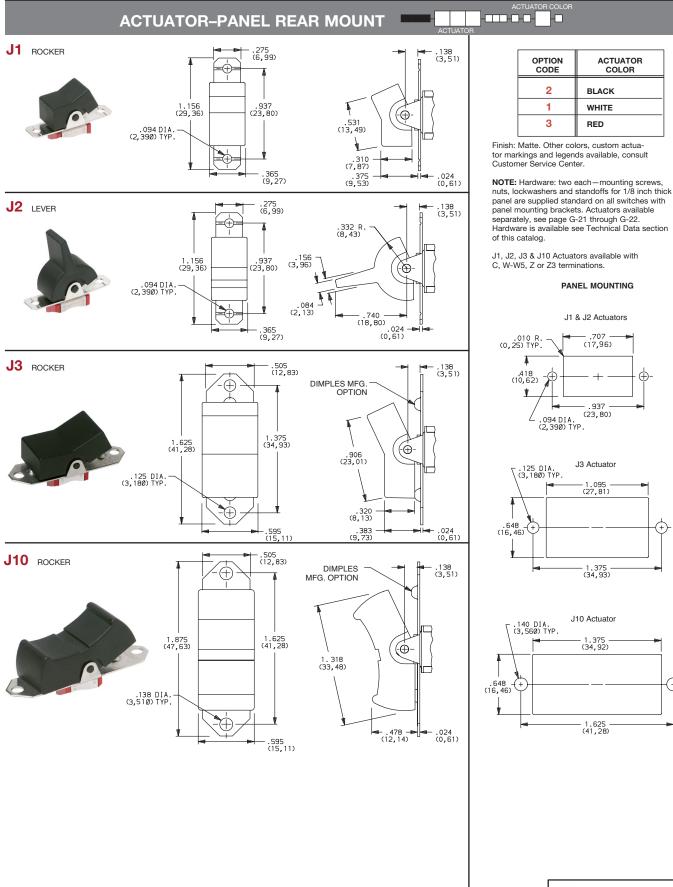
MOM. = Momentary

**F**&K

\*\* U11 through U411 model nos. Crayus 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.





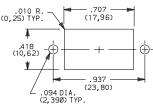
Hardware is available see Technical Data section J1, J2, J3 & J10 Actuators available with C, W-W5, Z or Z3 terminations. PANEL MOUNTING J1 & J2 Actuators

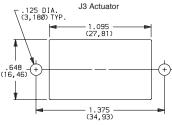
ACTUATOR COLOR

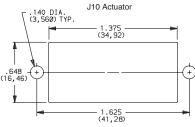
BLACK

WHITE

RED





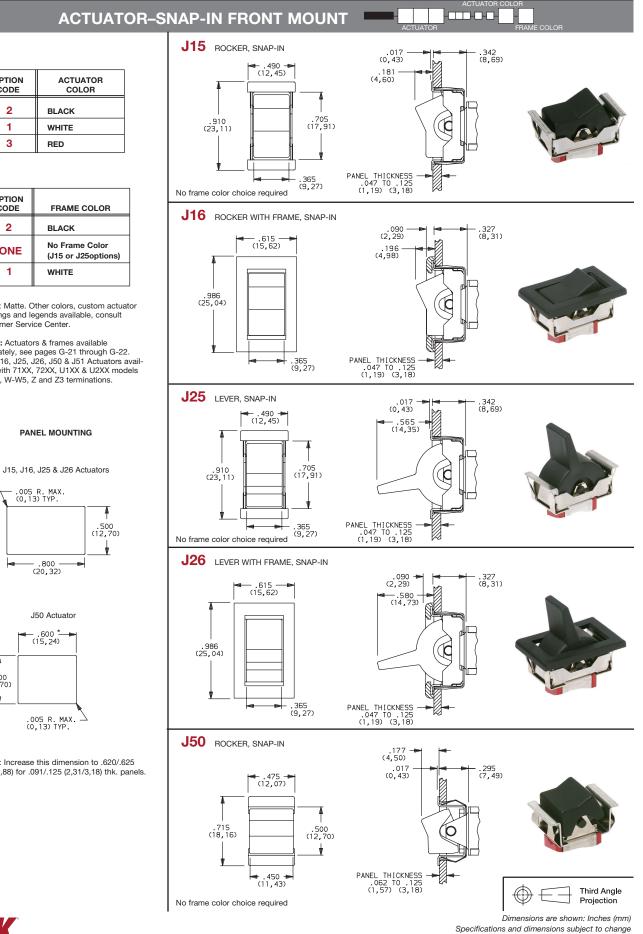




Dimensions are shown: Inches (mm) Specifications and dimensions subject to change







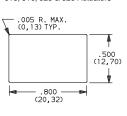
OPTION CODE 2 1 3

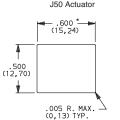
OPTION CODE	FRAME COLOR
2	BLACK
NONE	No Frame Color (J15 or J25options)
1	WHITE

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

NOTE: Actuators & frames available separately, see pages G-21 through G-22. J15, J16, J25, J26, J50 & J51 Actuators avail-able with 71XX, 72XX, U1XX & U2XX models and C, W-W5, Z and Z3 terminations







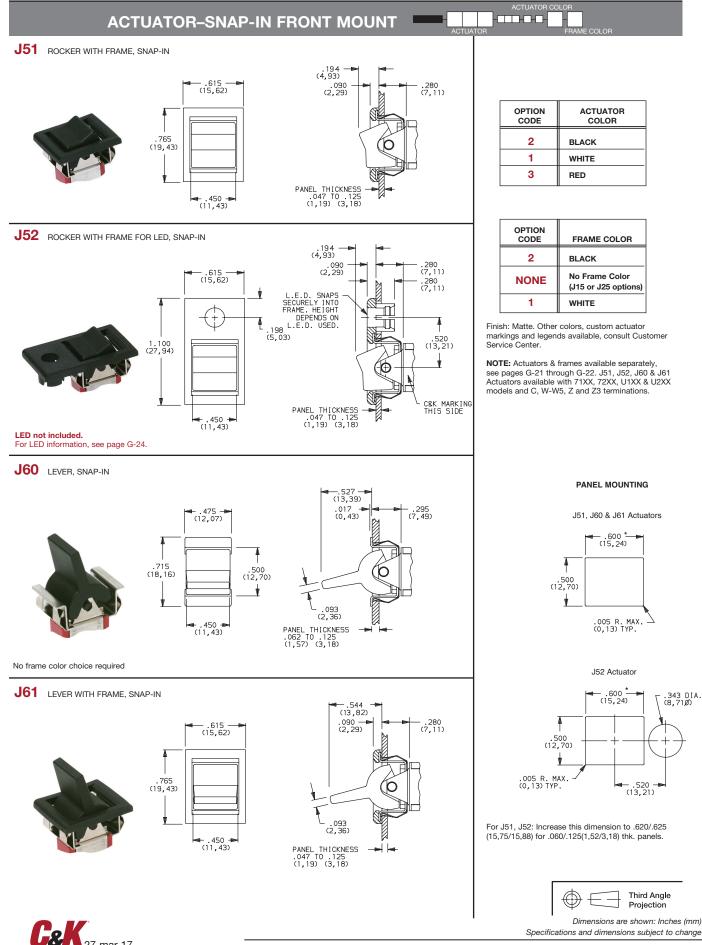
\* For J50: Increase this dimension to .620/.625 (15,75/15,88) for .091/.125 (2,31/3,18) thk. panels.



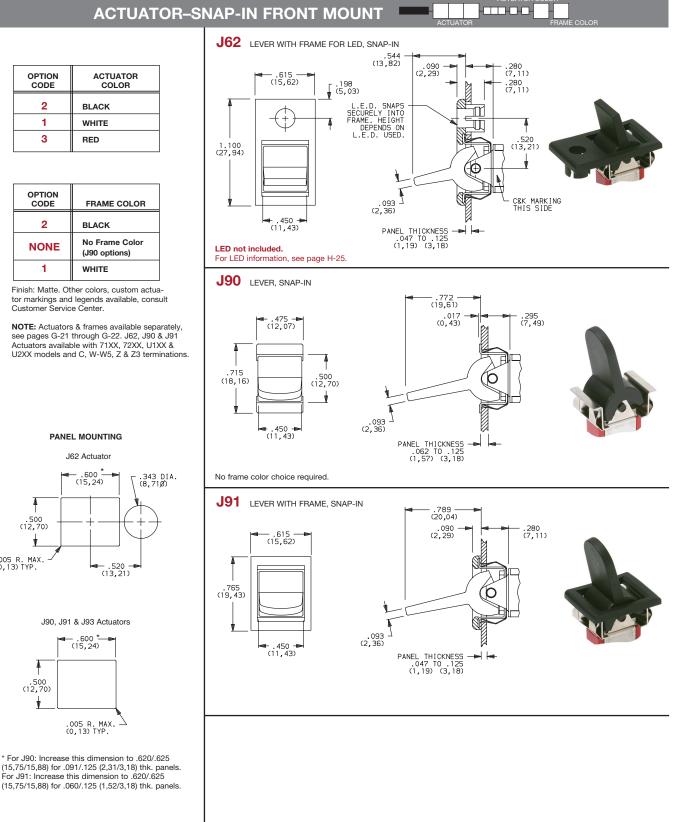
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G-8



Rocker





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G-10

G

2

1

3

2

1

4

.500 (12,70)

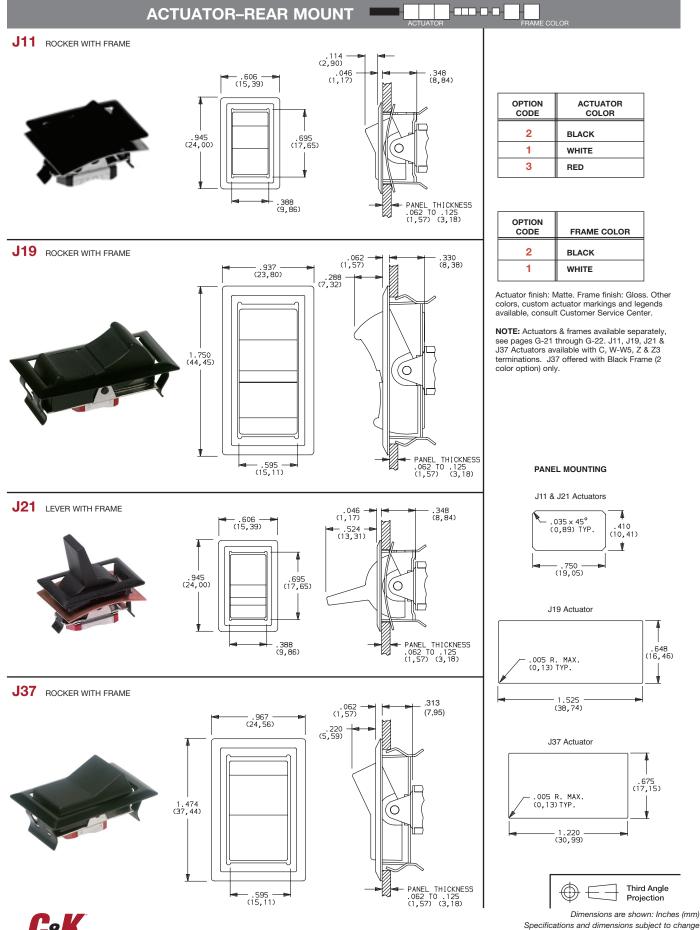
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4 .500 ¥

-2/

.005 R. MAX. (0,13) TYP.





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ACTUA			R
	J1 ROCKER		
DR	.310 (7,87) (7,87) (7,87) (7,59) (7,59) (7,59) (7,59) (7,59) (7,59)	.365 (9,27)	A CAN
	J2 LEVER		
or actuator consult or/termination e between e must be condition. ee page G-21 available with inations. J3 3 & V2-V61 able with A	.156 (3, 96) .084 (2, 13) .740 (18, 80) (8, 43)	.365 (9,27)	
<sup>o</sup> models only), only) & V2-V61	J3 ROCKER		
	.906 (23,01) .320 (8,13) .351 (8,92) 1.055 (26,80)	.595	
	J50 ROCKER		
	.306 (7,77) .460 (11,68)		
			Dimensions are shown: Inches (mm)
		Specific	cations and dimensions subject to change

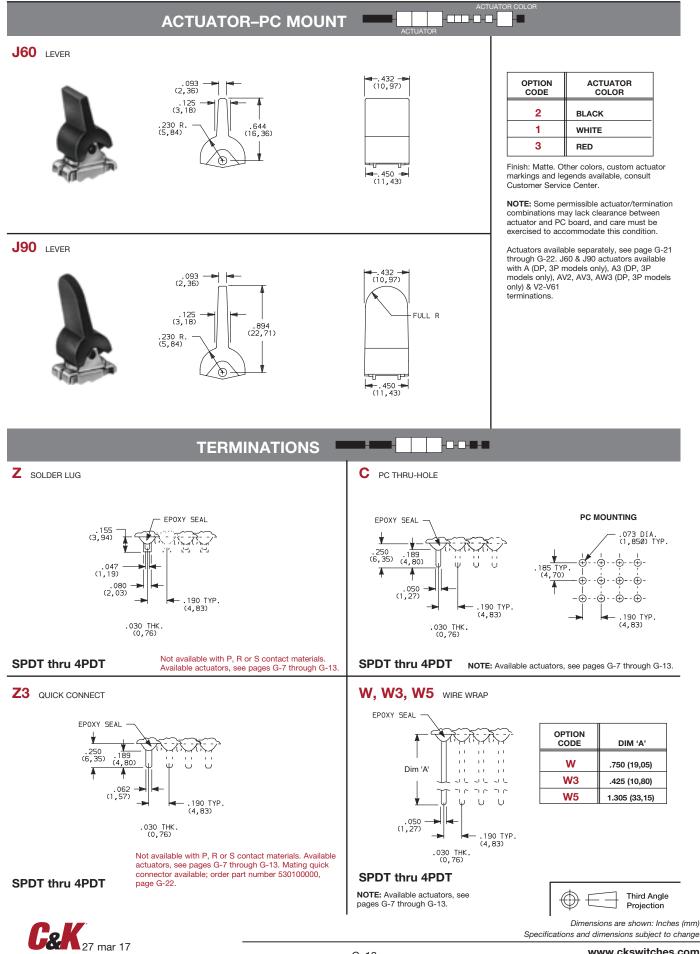
OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE
3	RED

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-21 through G-22. J1, J2 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.

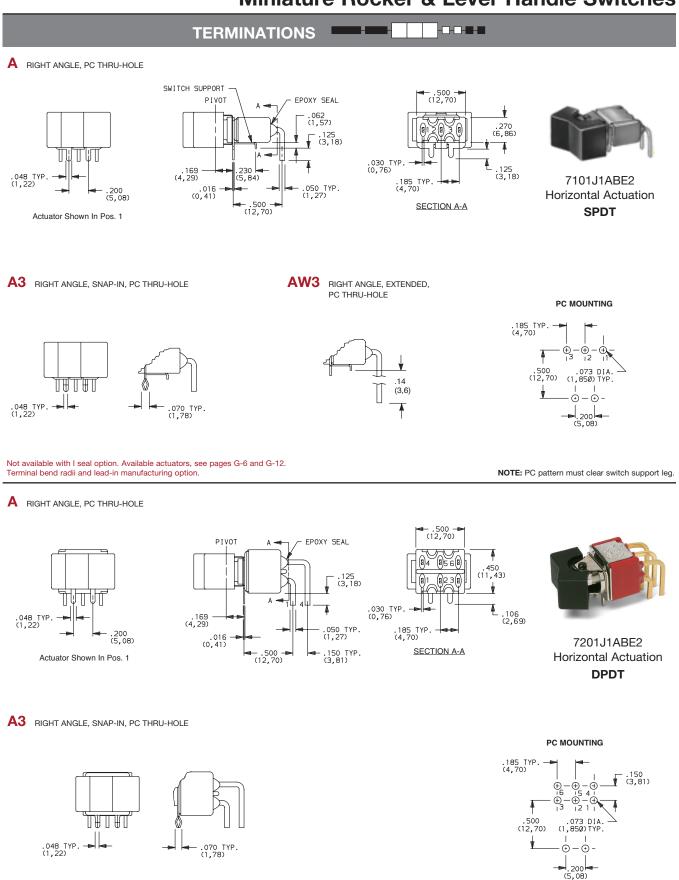




G-13

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TYT



Not available with I seal option. Available actuators, see pages G-6 and G-12. Terminal bend radii and lead-in manufacturing option.



Rocker

G

Dimensions are shown: Inches (mm)

Specifications and dimensions subject to change

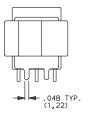
Third Angle

Projection

#### TERMINATIONS

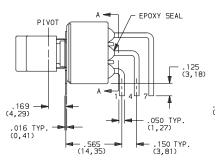
A RIGHT ANGLE, PC THRU-HOLE

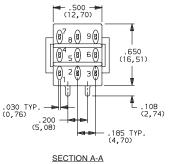




7301J1ABE2 Horizontal Actuation **3PDT** 

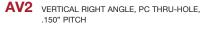


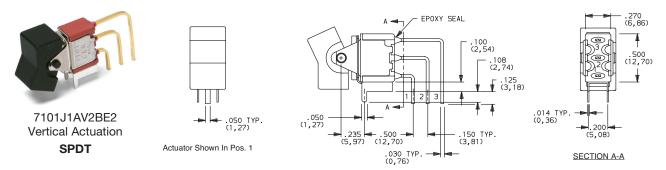




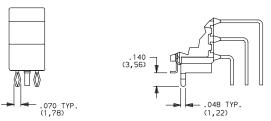
PC MOUNTING .185 TYP.-(4,70) .150 TYP. (3,81) ¥ -+ 8 -9<sup>⊕</sup> € € 5\_4 .` ⊕<sub>6</sub> ÷ ֮ Έ. 12 .073 DIA (1,850) TYP .565 Ŵ  $\odot$ 200 (5,08)

Not available with I seal option. Available actuators, see pages G-6 and G-12. Terminal bend radii and lead-in manufacturing option.



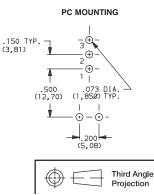


AV3 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150" PITCH



Not available with I seal option. Available actuators, see pages G-6 and G-12. Terminal bend radii and lead-in manufacturing option.

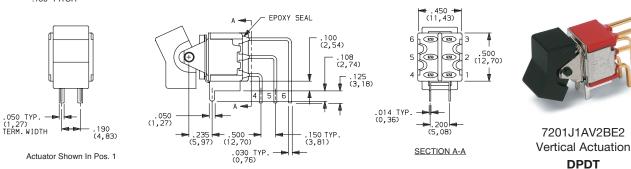




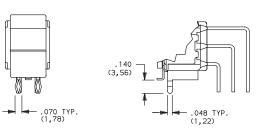
Dimensions are shown: Inches (mm) Specifications and dimensions subject to change 

AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE,



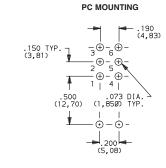


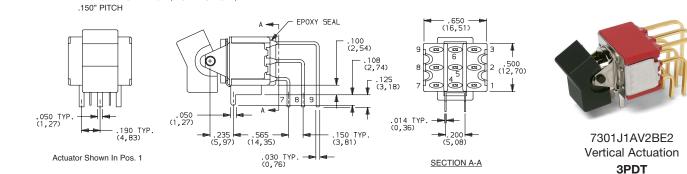




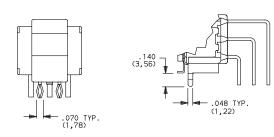
Not available with I seal option. Available actuators, see pages G-6 and G-12. Terminal bend radii and lead-in manufacturing option.

AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE,





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



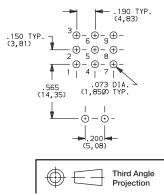
Not available with I seal option. Available actuators, see pages G-6 and G-12. Terminal bend radii and lead-in manufacturing option.

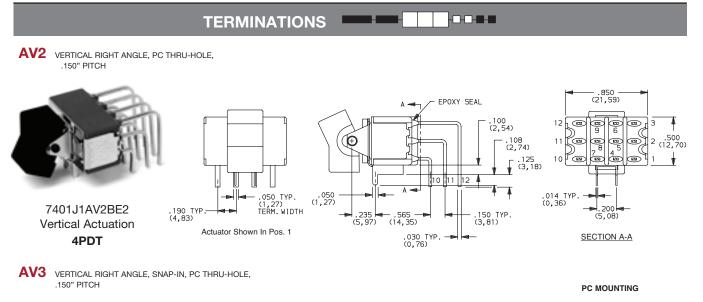


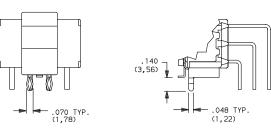
Rocker

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PC MOUNTING



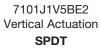




Not available with I seal option. Available actuators, see pages G-6 and G-12. Terminal bend radii and lead-in manufacturing option.

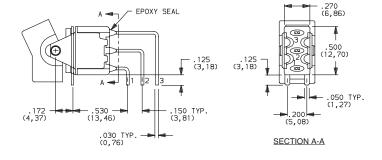
**V5** VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH





.050 TYP. (1,27) TERM. WIDTH





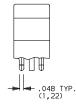
.150 TYP. (3,81)

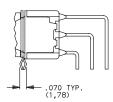
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.565 (14,35)

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





Not available with I seal option. Available actuators, see pages G-6 and G-12. Terminal bend radii and lead-in manufacturing option.



.150 TYP. (3,81) -\_⊕-\_\_2⊕-. ⊕-1 .530 .073 DIA. (13,46) (1,850) TYP.  $\odot - \odot$ 200 (5, 08)

PC MOUNTING

Third Angle Projection

.190 TYP. (4,83)

-\_6⊕\_-\_9⊕\_-\_ 9⊕\_12⊕-\_⊕\_5⊕\_8⊕\_1 2⊕\_5⊕\_8⊕\_1

7 | 10

.073 DIA (1,85Ø) TYP

 $( \cdot ) - ( \cdot ) -$ . 200 -(5,08)

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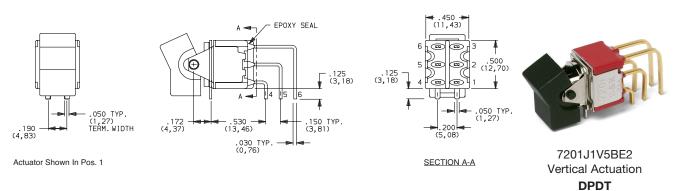
Rocker

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

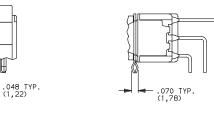
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V5 VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH



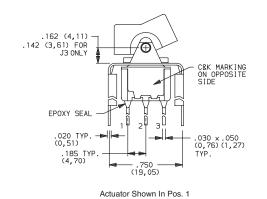
V51 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150" PITCH



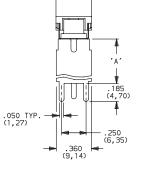
Not available with I seal option. Available actuators, see pages G-6 and G-12. Terminal bend radii and lead-in manufacturing option.



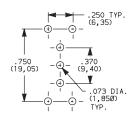
V61 VERTICAL MOUNT, V-BRACKET, SNAP-IN



Not available with I seal option. Available actuators, see pages G-6 and G-12.



PC MOUNTING





7101J1 BE2 SPDT

OPTION CODE	DIM 'A'
V2, V21	.555 (14,10)
V6, V61	.460 (11,68)
<b>V</b> 7	.630 (16,00)
<b>V</b> 8	.953 (24,21)

Third Angle  $\bigcirc$ Projection



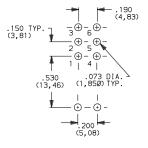
2

27 mar 17

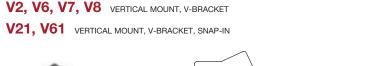


Dimensions are shown: Inches (mm) Specifications and dimensions subject to change

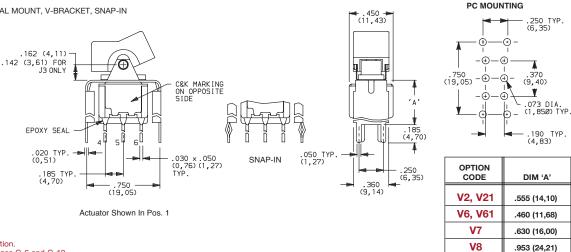
PC MOUNTING



#### **TERMINATIONS**



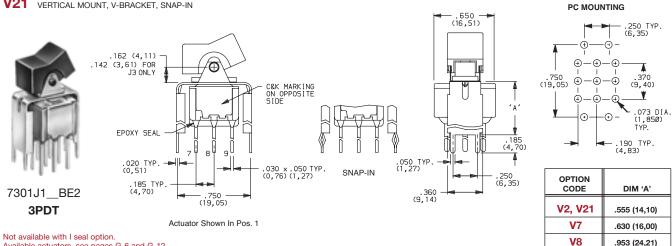




Not available with I seal option. Available actuators, see pages G-6 and G-12.

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

V21 VERTICAL MOUNT, V-BRACKET, SNAP-IN



Not available with I seal option. Available actuators, see pages G-6 and G-12.

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

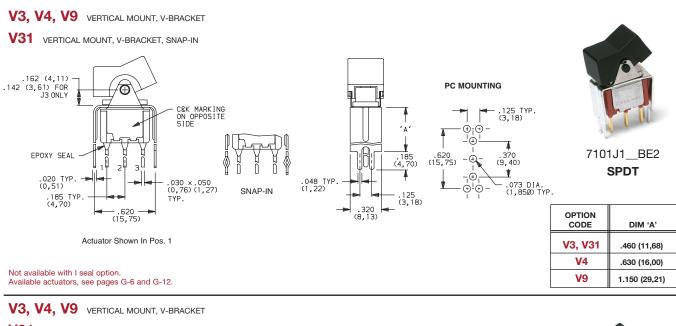
-.850 -(21,59) V21 VERTICAL MOUNT, V-BRACKET, SNAP-IN .250 TYP. (6,35) (-) .162 (4,11) ⊕-• €  $\oplus$ .142 (3,61) FOR J3 ONLY Å Ð .750 (19,05) .370 (9,40) € ÷ Ð C&K MARKING ON OPPOSITE SIDE ¥ ė ė Ð .073 DIA. (1,850) TYP. ' A .190 TYP. (4,83) EPOXY SEAL .185 (4,70) 10 .020 TYP. -SNAP-IN .050 TYP (1.27) OPTION CODE DIM 'A' .030 × .050 (0,76) (1,27) TYP. .250 (6,35) .185 TYP (4,70) 7401J1\_\_BE2 .360 (9,14) V2, V21 - .750 -(19,05) .555 (14,10) **V7** 4PDT .630 (16,00) Actuator Shown In Pos. 1 **V**8 .953 (24,21) Not available with I seal option. Available actuators, see pages G-6 and G-12. Third Angle Projection

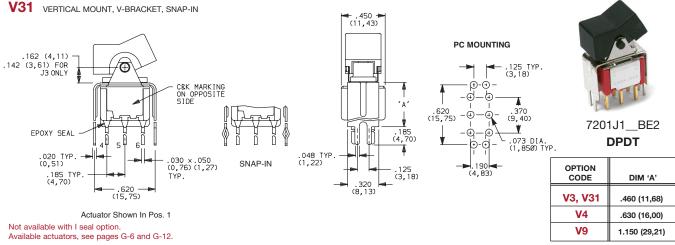
27 mar 17

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

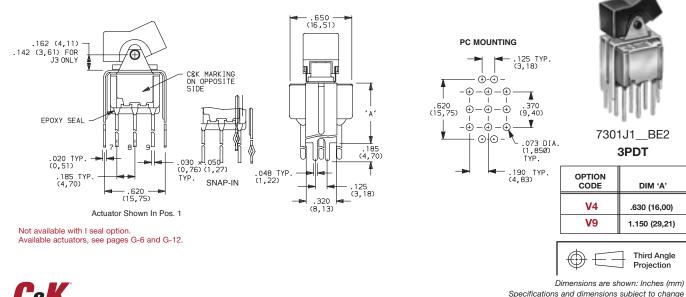
PC MOUNTING







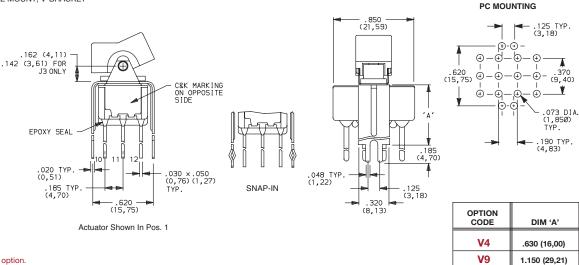
V4, V9 VERTICAL MOUNT, V-BRACKET



#### **TERMINATIONS**

V4, V9 VERTICAL MOUNT, V-BRACKET





Not available with I seal option. Available actuators, see pages G-6 and G-12.

#### CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS		
В	GOLD <sup>1</sup>	GOLD <sup>1</sup>	LOW LEVEL/		
Р	GOLD	MATTE-TIN 6	DRY CIRCUIT	0.4 VA MAX. @ 20 V AC OR DC MAX.	
Q	SILVER <sup>4,5</sup>	SILVER 5	DOWED		
S	SILVER 7,9	MATTE-TIN 6	POWER	5 AMPS @ 120 V AC OR 28 V DC; 2 AMPS @ 250 V AC.	
G	GOLD OVER SILVER 2,3	GOLD <sup>3</sup>	LOW LEVEL/DRY	0 4 VA MAX @ 20 V AC OR DC MAX OR 5 AMPS @	
R		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.

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

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

over nickel plate.

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

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

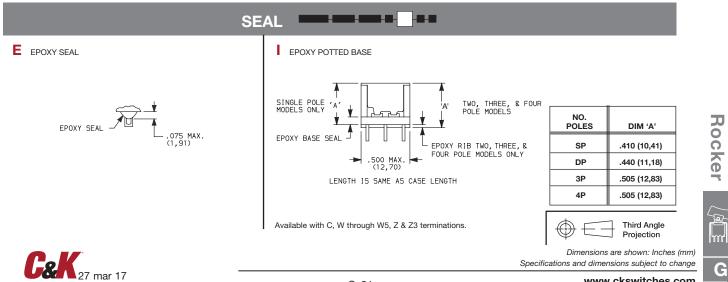
<sup>6</sup> TERMINALS: Copper alloy, with matte-tin over nickel plate.

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.

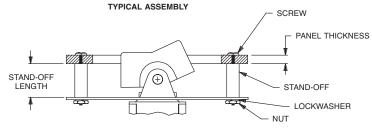


U11-U415 model numbers cNus with all options when ordered with G. Q. S & R contact material.

#### **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.

Qty	Part Number	Description
2	761103000	Standoffs
2	764100000	Mounting screws
2	764200000	Lock washers
2	764300000	Hex nuts



#### J1 & J2 actuators

J3 actuators

PART NO.	PANEL THK.	STANDOFF LENGTH	PART NO.	PANEL THK.	STANDOFF LENGTH
761103000	1/8 IN. (3,18)	.233 (5,92)	770603000	1/8 IN. (3,18)	.233 (5,92)

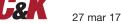
#### J10 actuators

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

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

J1, J11, J15 & J16 Actuators	J2, J21, J25 & J26 Actuators	J3 & J37 Actuators
PART NO. 776A01000 WHITE 776A02263 BLACK 776A03000 RED	PART NO. 426D01000 WHITE 426D02263 BLACK 426D03000 RED	PART NO. 431D01000 WHITE 431D02263 BLACK 431D03000 RED
Material: Nylon Finish: Matte	Material: Nylon Finish: Matte	Material: Nylon Finish: Matte
J50, J51 & J52 Actuators	J60, J61 & J62 Actuators	
PART NO. 775A01000 WHITE 775A02263 BLACK 775A03000 RED	PART NO. 598101000 WHITE 613802263 BLACK 598103000 RED	
Material: Nylon Finish: Matte	Material: Nylon Finish: Matte	

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



	AVAILABLE HARDWARE	
J90 & J91 Actuators	J10 & J19 Actuators	Fits Z3 Termination female connector
PART NO. 598001000 WHITE 598002263 BLACK 598003000 RED Material: Nylon Finish: Matte Frame for J11 & J21 Actuators	PART NO. 769501000 WHITE 769502263 BLACK 769503000 RED Material: Nylon Finish: Matte Frame for J16 & J26 Actuators	PART NO. 530100000 Available in loose pieces. Frame for J51, J61 & J91 Actuators
PART NO. 764500746 BLACK ENAMEL 764500747 WHITE ENAMEL 764601106 RETAINING SPRING Material: Spring Steel	PART NO. 459101000 WHITE 459102000 BLACK 459103000 RED Material: Nylon Finish: Matte	PART NO. 615601000 WHITE 615602263 BLACK 615603000 RED Material: Nylon Finish: Matte
Frame for J19 Actuator	Frame for J37 Actuator	Frame for J52 & J62 Actuators
PART NO. 781000746 BLACK ENAMEL 781000747 WHITE ENAMEL Material: Spring Steel	PART NO. 445400746 BLACK ENAMEL Material: Spring Steel	PART NO. 613301000 WHITE 613302263 BLACK 613303000 RED Material: Nylon Finish: Matte
CeK 27 mar 17		Dimensions are shown: Inches (n Specifications and dimensions subject to cha www.ckswitches.cc

Rocker

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#### **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.





J1 & J2 Actuators



PART NO. 452902263

.047" (1,19) PANEL THK.

PART NO. 452702263

.062" (1,57) PANEL THK.

PART NO. 452802263

.090" (2,29) PANEL THK.

.125" (3,18) PANEL THK.

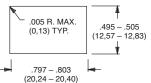
PART NO. 452602263 BLACK

J50, J60 & J90 Actuators

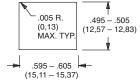


#### PANEL MOUNTING

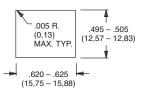
For part numbers 4529xxxx, 4527xxxx, 4528xxxx, 4526xxxx



For part numbers 4325xxxxx, 4326xxxxx



For part numbers 4327xxxxx, 4328xxxxx





27 mar 17

-2

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

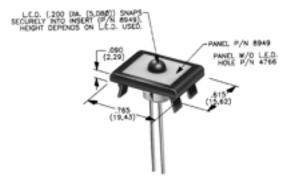
Third Angle

#### **AVAILABLE HARDWARE**

Panel Inserts

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

Above frames (part nos. 432XXXXX) 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. BLANK PANEL INSERT WITHOUT HOLE FOR LED

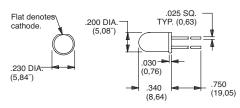
PART NO. 894902000 PART NO. 476602000 BLACK

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.

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#### Features/Benefits

- Sealed against solder and cleaning process contaminants
- ESD Resistance—all actuator options
- Rocker, case & bushing UL 94V-0
- RoHS compliant



#### Specifications

- CONTACT RATING: B contact material: 0.4 VA max. @ 20 V AC or DC max. Q contact material (E1XX & E2XX Models): 7.5 AMPS @125 V AC or 28 V DC; 3 AMPS @ 250 V AC. (E3XX Models): 5 AMPS @ 125 V AC or 28 V DC; 2 AMPS @ 250 V AC. See page G-36 for additional ratings.
- ELECTRICAL LIFE: E1XX and E2XX models: 40,000 make-and-break cycles at full load. E3XX models: 30,000 cycles.

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

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

ELECTROSTATIC DISCHARGE (ESD) OPTION: All actuator options: 15,000 V DC max. @ sea level, actuator to terminals.

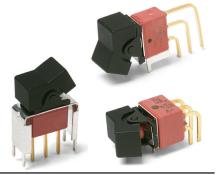
DIELECTRIC STRENGTH: 1000 Vrms min. @ sea level.

OPERATING TEMPERATURE: -30°C to 85°C.

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

#### **Typical Applications**

- Telecommunications
- Instrumentation
- Computers & peripherals



#### Materials

- CASE & BUSHING: Glass filled nylon 6/6, flame retardant, heat stabilized (UL 94V-0).
- ACTUATOR: Nylon, black standard, internal o-ring seal standard with all actuators.

FRAME: Spring steel, black standard.

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

ACTUATOR PIVOT & MOUNTING BRACKET: Nylon.

ACTUATOR PIVOT RETAINER: Stainless steel.

CONTACTS & TERMINALS: B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Copper alloy, silver plated. See page G-36 for additional contact materials.

TERMINAL SEAL: Epoxy.

HARDWARE: Nut, Screw & Lockwasher: Stainless steel. Standoff: Nylon standard, aluminum available, consult Customer Service Center.

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

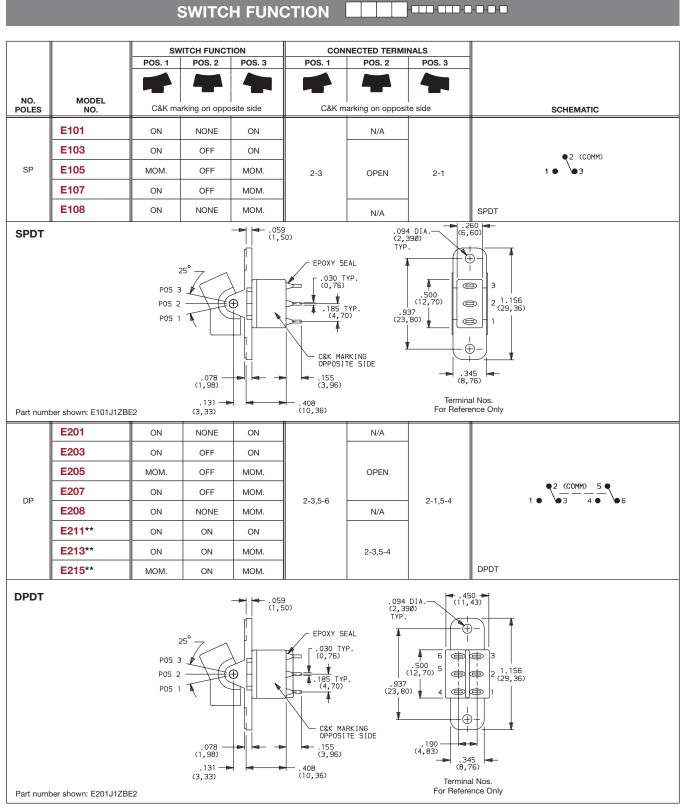
**NOTE:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

#### **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-26 through G-38. For additional options not shown in catalog, consult Customer Service Center. All models are process sealed to withstand machine soldering temperatures and pressure wash cleaning methods.

E201 DP On-None-OnE203 DP On-Off-OnE205 DP MomOff-Mom.E207 DP On-Off-Mom.E208 DP On-None-Mom.E211 DP On-On-OnE213 DP On-On-Mom.E215 DP MomOn-Mom.E301 3P 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         AV3       Vertical right angle, snap-in, PC thru-hole         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         V21       .555" high, V-bracket, snap-in         V31       .460" high, V-bracket, snap-in	Contact Material B Gold P Gold, matte tin Q Silver S Silver, matte-tin G Gold over silver, mat Seal E Epoxy Actuator Color 2 Black 3 Red	atte-tin  Frame Color  Black  MoNE No frame color required  Metal Frame Color (J11, J21 Actuators)  Black  Subscience  Black  Color  Co
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MOM. = Momentary \*\* Wiring for 3-way switch, Hardware available seperately, see Technical Data section of this catalog. All models CNUS with all options when ordered with G, Q, R or S contact material.

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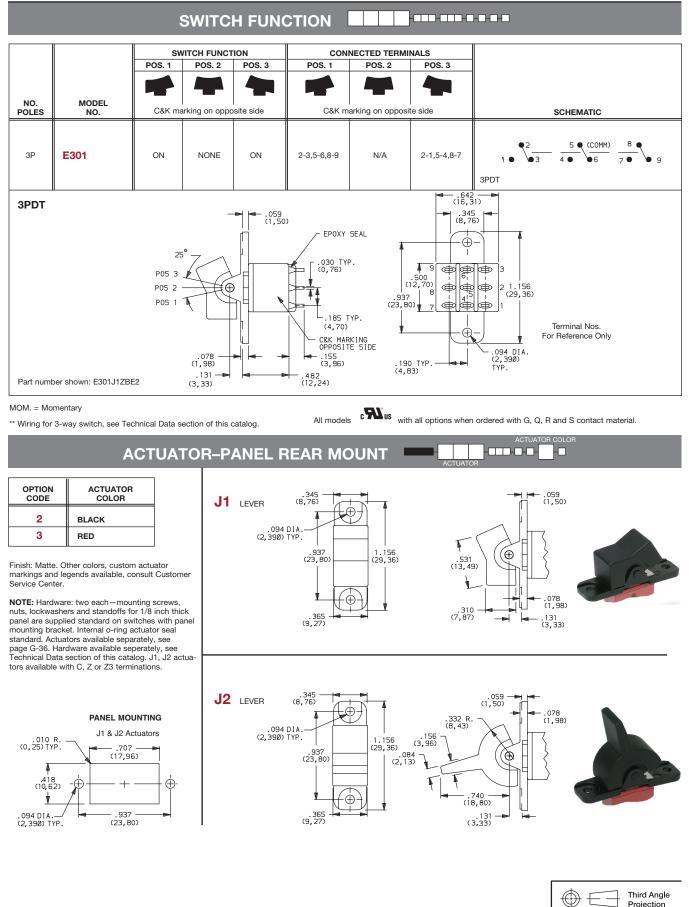
G



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Specifications and dimensions subject to change

Third Angle



-<u>&</u>K

Rocker

G

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

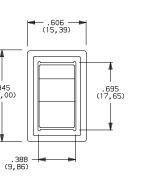
Projection

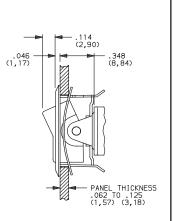
ACTUATOR-REAR MOUNT

#### J11 ROCKER WITH FRAME



NOTE: This option has reduced anti-static capability



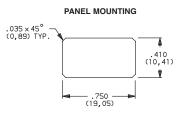


OPTION CODE	ACTUATOR COLOR
2	BLACK
3	RED

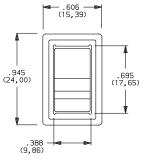
OPTION CODE	FRAME COLOR
2	BLACK

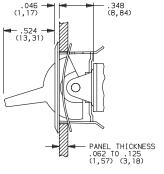
Actuator finish: Matte, frame finish: gloss. Other colors, custom actuator markings and legends available, consult Customer Service Center.

NOTE: Internal o-ring actuator seal standard. Actuators & frames available separately, see page G-36. Hardware available seperately, see Technical Data section of this catalog. N. J11 & J21 actuators available with C, Z & Z3 terminations.



J21 LEVER WITH FRAME





OPTION

CODE

2

3

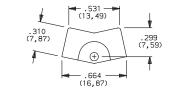
NOTE: This option has reduced anti-static capability.

#### **ACTUATOR-PC MOUNT**



J1 ROCKER

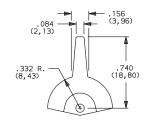


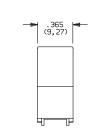




J2 LEVER







RED

BLACK

ACTUATOR

COLOR

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

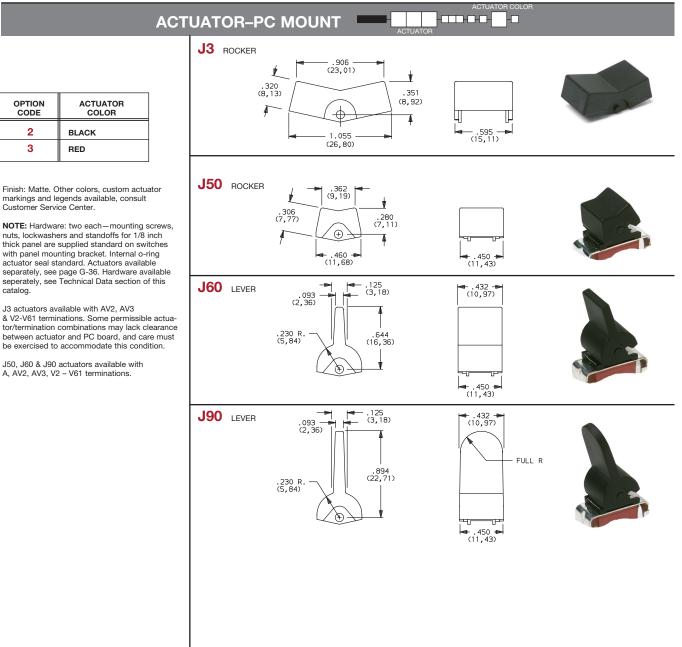
NOTE: Hardware: two each—mounting screws, nuts, lockwashers and standoffs for 1/8 inch thick panel are supplied standard on switches with panel mounting bracket. Internal o-ring actuator seal standard. Actuators available separately, see page G-36. Hardware available seperately, see Technical Data section of this catalog. J1, J2 actuators available with A, A3, AV2, AV3, V2-V61 terminations.

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Rocker

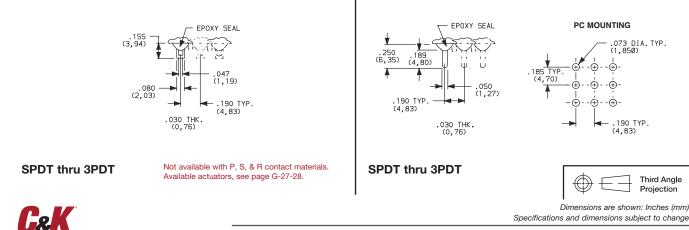




**TERMINATIONS** 

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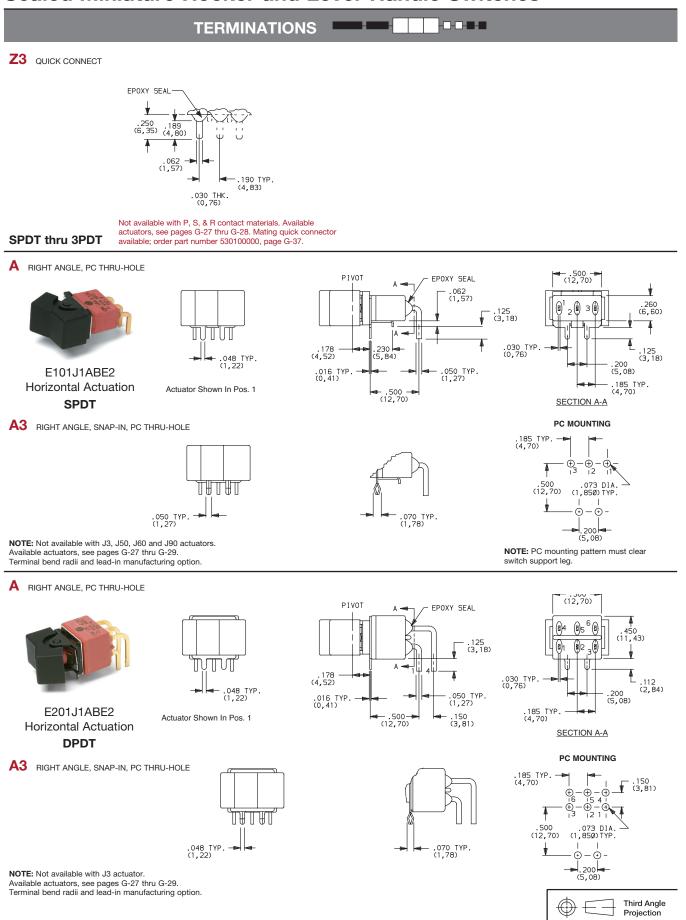
C PC THRU-HOLE



Z SOLDER LUG

Rocker

-TTT

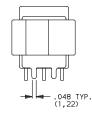


Dimensions are shown: Inches (mm) Specifications and dimensions subject to change Rocker

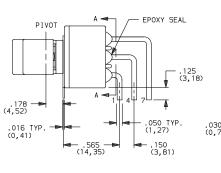
TYT

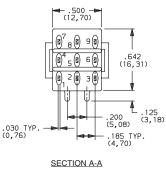
TERMINATIONS

A RIGHT ANGLE, PC THRU-HOLE



Actuator Shown In Pos. 1

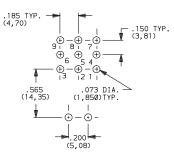






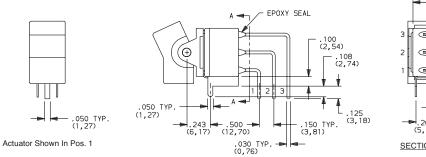
E301J1ABE2 Horizontal Actuation **3PDT** 

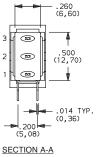
PC MOUNTING



NOTE: Terminal bend radii and lead-in manufacturing option. Available actuators, see pages G-27 thru G-29.







PC MOUNTING

 $-3 \oplus -2 \oplus -1 \oplus -$ 

.500 .073 DIA (12,70) (1,85Ø) TYP

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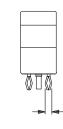
1.200 (5,08)

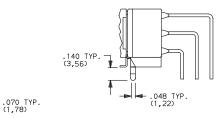
.150 TYP (3,81)



E101J1AV2BE2 Vertical Actuation SPDT

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





NOTE: Terminal bend radii and lead-in manufacturing option. Available actuators, see pages G-27 thru G-29.



Dimensions are shown: Inches (mm)

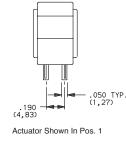
Dimensions are shown: Inches (mm) Specifications and dimensions subject to change

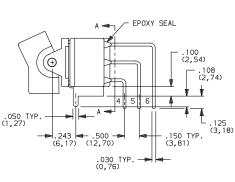
Third Angle

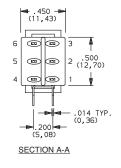
**TERMINATIONS** 

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

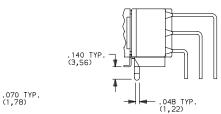








AV3 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150" PITCH

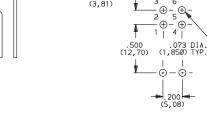




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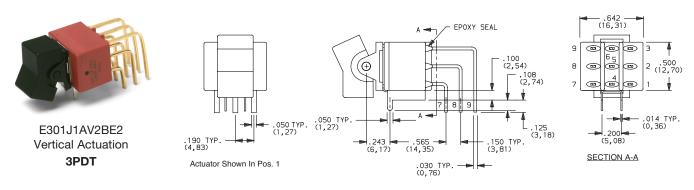
.190 (4,83)



.150 TYP. (3,81)

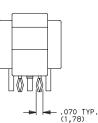
NOTE: Terminal bend radii and lead-in manufacturing option. Available actuators, see pages G-27 thru G-29.

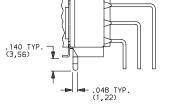




AV3 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150" PITCH

NOTE: Terminal bend radii and lead-in manufacturing option. Available actuators, see pages G-27 thru G-29.





.190 TYP. (4,83) .150 TYP. (3,81)  $\oplus$ 6 3 € -⊕-5 -⊕-Ð 7 4 | .073 DIA (1,85Ø) TYP .565 ⊙ — ⊙ -



. 200 -(5, 08)

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

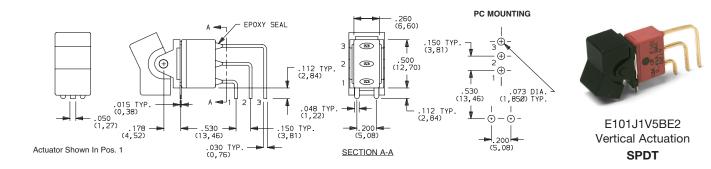




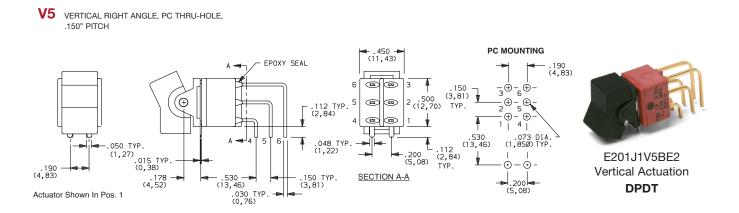


TERMINATIONS

V5 VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH



NOTE: Terminal bend radii and lead-in manufacturing option. Available actuators, see pages G-27 thru G-29.



NOTE: Terminal bend radii and lead-in manufacturing option. Available actuators, see pages G-27 thru G-29.



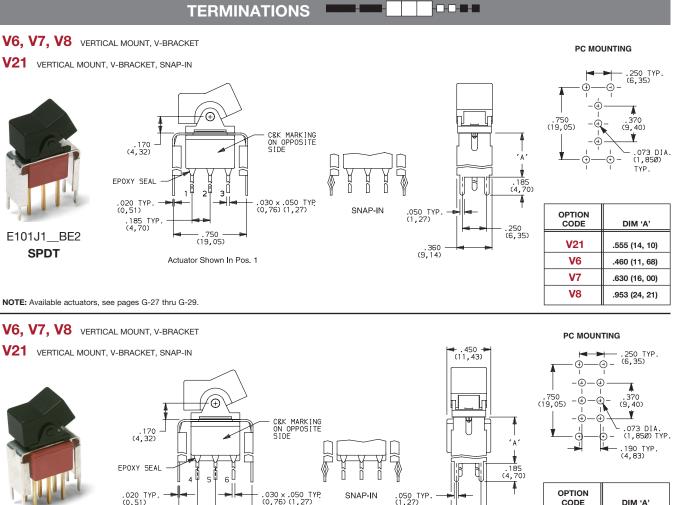
-<u>&</u>K

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

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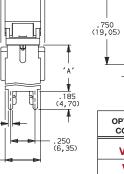
Third Angle

Projection



E201J1\_\_BE2 DPDT

.020 TYP .030 x .050 TYP (0,76) (1,27) .185 TYP (4,70) -.750 -(19,05) Actuator Shown In Pos. 1



.360

OPTION CODE DIM 'A' V21 .555 (14, 10) **V**6 .460 (11, 68) **V**7 .630 (16, 00)

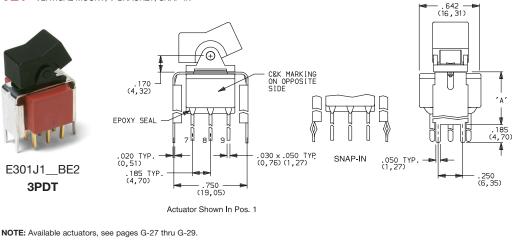
.953 (24, 21)

NOTE: Available actuators, see pages G-27 thru G-29.

#### V7, V8 VERTICAL MOUNT, V-BRACKET

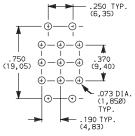
V21 VERTICAL MOUNT, V-BRACKET, SNAP-IN

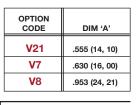
E301J1\_\_BE2 **3PDT** 



#### PC MOUNTING

**V**8







G

Rocker

Dimensions are shown: Inches (mm)

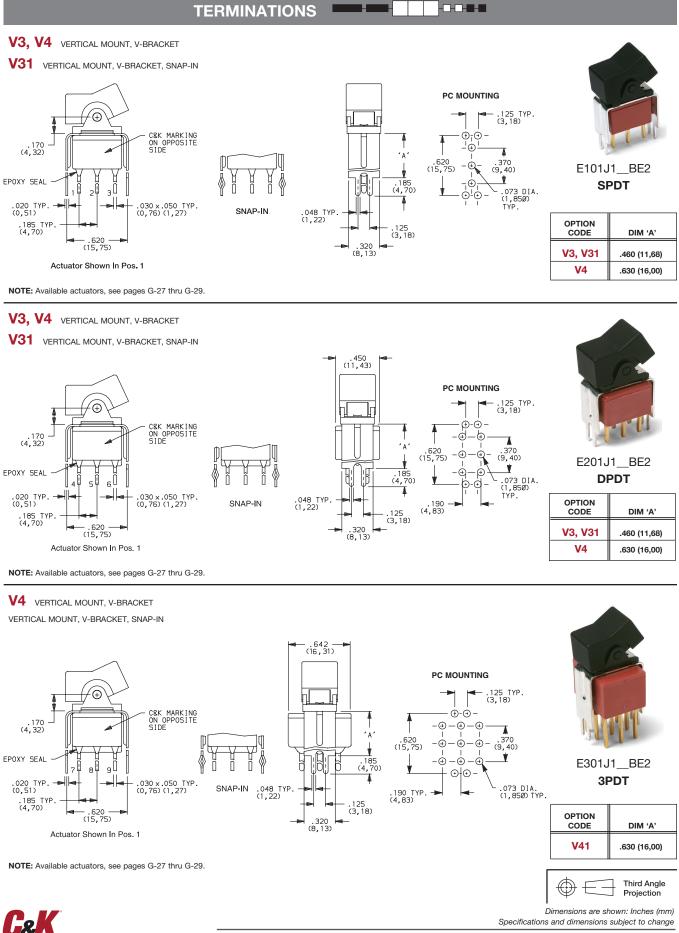
Specifications and dimensions subject to change



Third Angle

Projection





G

www.ckswitches.com

### E Series Sealed Miniature Rocker and Lever Handle Switches

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS	
В	GOLD 1	GOLD 1	LOW LEVEL/	0.4 VA MAX. @ 20 V AC OR DC MAX.
Р		MATTE-TIN 7	DRY CIRCUIT	
Q	SILVER 4,5	SILVER 5	POWER	E1XX & E2XX MODELS: 7.5 AMPS @125 V AC OR 28 V DC: 3 AMPS @250 V AC.
S		MATTE-TIN 6	POWER	E3XX MODELS: 5 AMPS @ 125 V AC OR 28 V DC; 2 AMPS @ 250 V AC.
G	GOLD OVER	GOLD <sup>3</sup>	LOW LEVEL/DRY	E1XX AND E2XX MODELS: 0.4 VA MAX @20 V AC OR DC MAX. OR 7.5 AMPS @125 V AC OR 28 V DC: 3 AMPS @ 250 V AC.
R	SILVER 2,3	MATTE-TIN 6	CIRCUIT OR POWER	DC E3XX MODELS: 0.4 VA MAX. @ 20 V AC OR DC MAX. OR 5 AMPS @ 125 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.

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

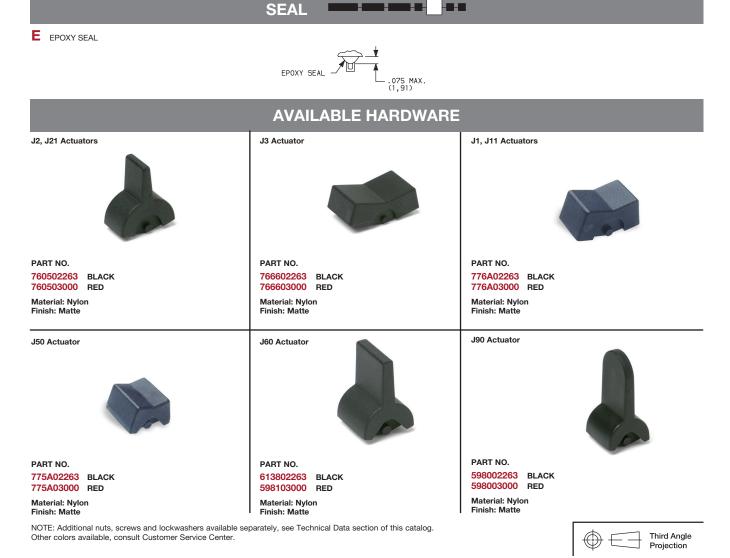
 $^{3}$  CENTER CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate.

- <sup>4</sup> END CONTACTS: Coin silver, silver plated.
- <sup>5</sup> CENTER CONTACT & ALL TERMINALS: Copper alloy, with gold flash over silver plate. Or copper alloy, silver plated.
- <sup>6</sup> TERMINALS: Copper alloy, with matte-tin over nickel plate.

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

All models with all options when ordered with G, Q, S & R contact material. B contact material standard with all terminations.

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





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

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NOTE: Additional nuts, screws and lockwashers available separately, see Technical Data section of this catalog. Other 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.

.047" (1,19) PANEL THK.

PART NO.

432502263

432503000





J1 & J2 Actuators

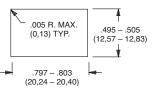




J50, J60 & J90 Actuators



For part numbers 4529xxxx, 4527xxxx, 4528xxxx, 4526xxxx



.005 R. (0,13) MAX. TYP. .595 - .605 (15,11 - 15,37)

PANEL MOUNTING

For part numbers

4325xxxx, 4326xxxx

.062" (1,57) PANEL THK.

PART NO.

432602263

432603000

432702263

.090" (2.29) PANEL THK.

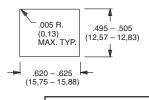
PART NO.

432703000

PART NO. 432802263 BLACK 432803000 RED

.125" (3,18) PANEL THK.

For part numbers 4327xxxxx, 4328xxxxx



Specifications and dimensions subject to change

Dimensions are shown: Inches (mm)

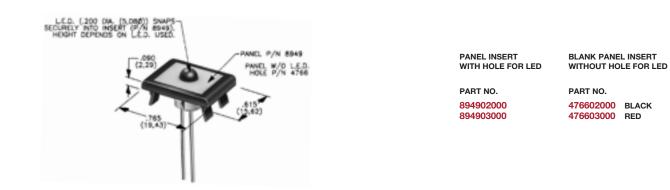
### E Series Sealed Miniature Rocker and Lever Handle Switches

### **AVAILABLE HARDWARE**

Panel Inserts

Above frames (part nos. 432XXXXX) 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.** 

Will fit separate snap-in frames for J50, J60, J90 actuators.



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

Rocker

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



#### Features/Benefits

- Sealed against solder and cleaning process contaminants
- Rocker, bushing & case—UL 94V-0
- Small footprint—saves space
- RoHS compliant

## c**W**us

#### Specifications

- CONTACT RATING: B contact material: 0.4 VA max. @ 20 V AC or DC max. Q contact material: Copper alloy, silver plated. See page G-43 for additional ratings.
- ELECTRICAL LIFE: ETX1 models: 60,000 make-and-break cycles at full load. All other models: 30,000 cycles.
- CONTACT RESISTANCE: Below 20 m  $\Omega$  typ. 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).
- PACKAGING: Surface mount switches standard in tape and reel packaging, see page G-45 for drawings and reel information.

#### Typical Applications

- Telecommunications
- Instrumentation
- Computers & peripherals



#### Materials

CASE & BUSHING: Glass filled nylon 6/6, flame retardant,

- heat stabilized (UL 94V-0) or glass filled 4/6 nylon, flame retardant, heat stabilized (UL 94V-0).
- ACTUATOR: Nylon, black standard. Internal o-ring seal standard with all actuators. SA surface mount: High temperature material, glass filled 46 nylon, flame retardant, heat stabilized (UL 94V-0).

SWITCH SUPPORT: Brass, matte-tin plated.

CONTACTS & TERMINALS: B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Copper alloy, silver plated. See page G-43 for additional contact materials. TERMINAL SEAL: Epoxy.

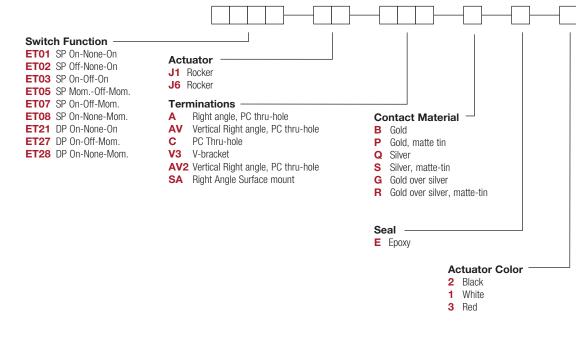
ERIVIINAL SEAL. EPOXY.

NOTE: Any models supplied with Q, B, G, S, P & R 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.

#### **Build-A-Switch**

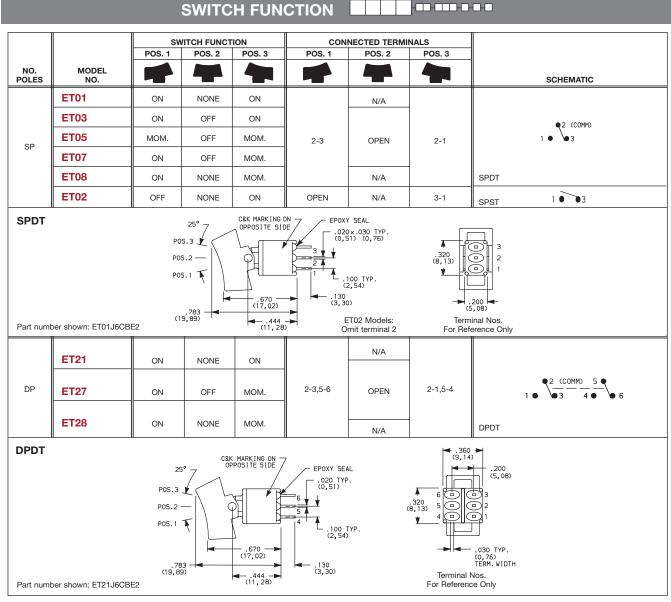
To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages G-40 thru G-44. For additional options not shown in catalog, consult Customer Service Center. All models are process sealed to withstand machine soldering temperatures and pressure wash cleaning methods.





**Rocker** 

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



MOM. = Momentary

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



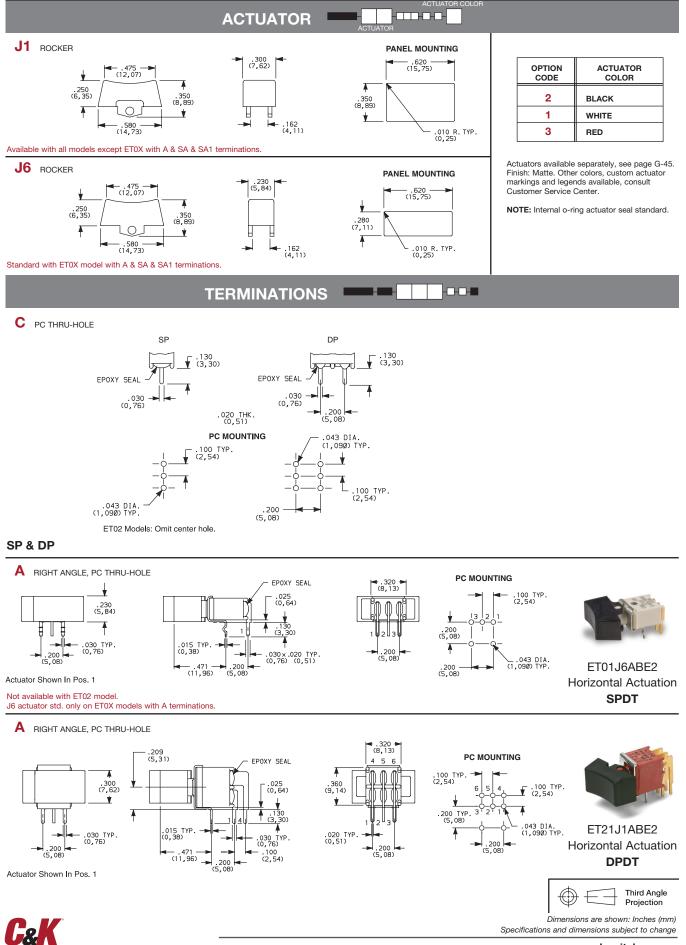


Dimensions are shown: Inches (mm) Specifications and dimensions subject to change

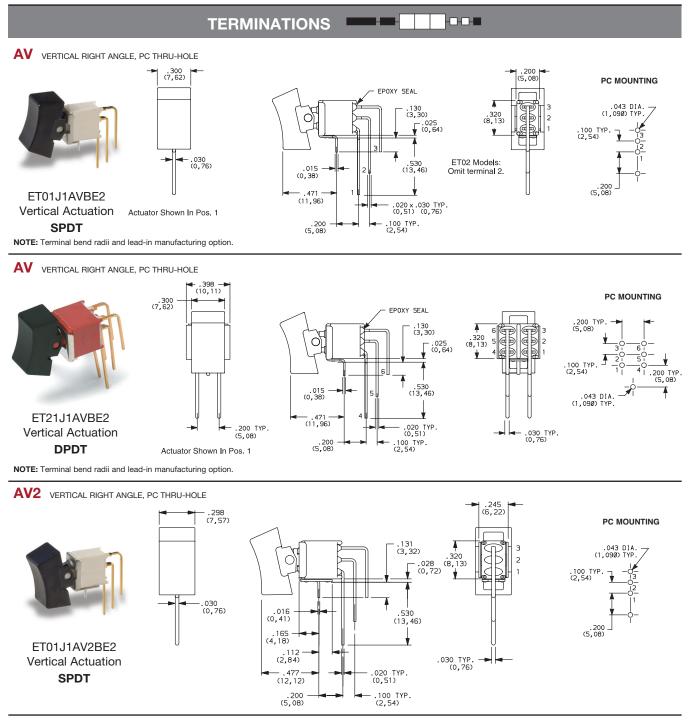
G



G–41



Rocker



TIT

G

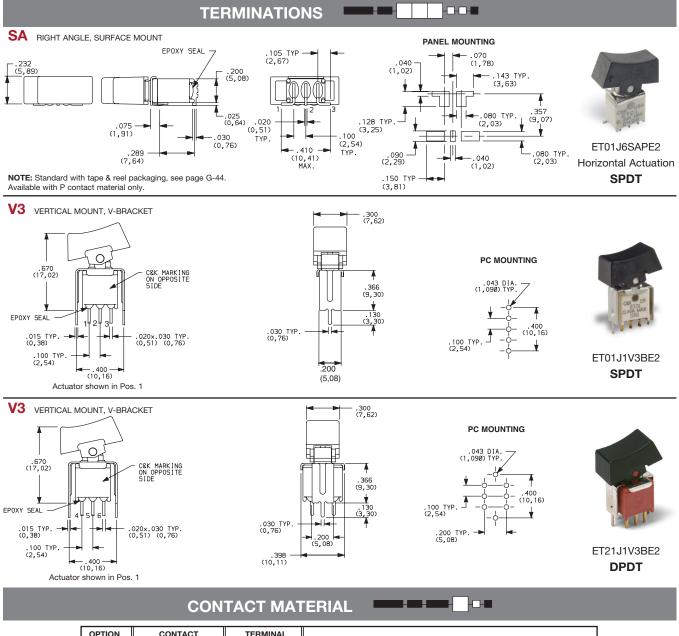


Dimensions are shown: Inches (mm)

Specifications and dimensions subject to change



G&K



OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING		RATINGS
В	GOLD <sup>1</sup>	GOLD <sup>1</sup>	LOW LEVEL/ DRY CIRCUIT	
Р		MATTE-TIN 6		0.4 VA MAX. @ 20 V AC OR DC MAX.
Q	SILVER 4,5	SILVER <sup>5</sup>	POWER	ETX1 MODELS: 3 AMPS @ 120 V AC OR 28 V DC.
S		MATTE-TIN <sup>6</sup>		ALL OTHER MODELS: 2 AMPS @ 120 V AC OR 28 V DC.
G	GOLD OVER	GOLD <sup>3</sup>	LOW LEVEL/DRY	ETX1 MODELS: 0.4 VA MAX @ 20 V AC OR DC MAX. OR 3 AMPS @120 V AC OR 28 V DC.
R	SILVER 2,3	MATTE-TIN 6	CIRCUIT OR POWER	ALL OTHER MODELS: 0.4 VA MAX @ 20 V AC OR DC MAX. OR 2 AMPS @ 120 V AC OR 28 V DC.

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

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

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

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

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

Rocker

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

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

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

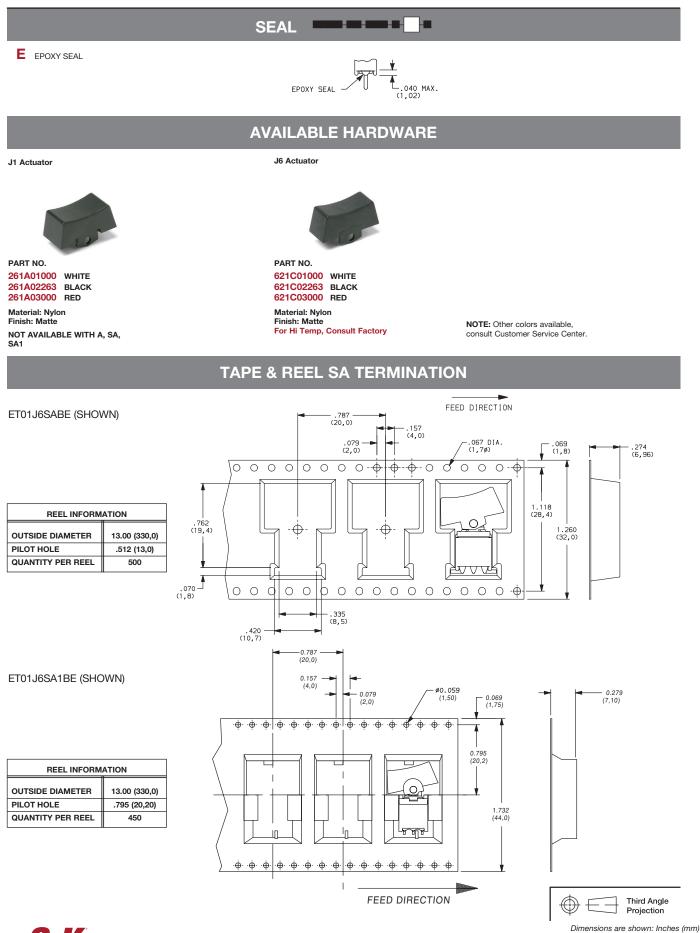
All models cwith all options when ordered with G, Q, S & R contact material.



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

F&K

G-44





Rocker

### Features/Benefits

- Compact size—small footprint
- Single and double pole models
- PC and panel mounting options available Medical Equipment
- RoHS compliant



Models Available

#### Specifications

- CONTACT RATING: Q contact material (TX01 models): 3 AMPS @ 120 V AC or 28 V DC. All other models: 2 AMPS @ 120 V AC or 28 V DC. See page G-49 for additional ratings.
- ELECTRICAL LIFE: TX01 models: 60.000 make-and-break cycles at full load. All other models: 30,000 cycles.
- CONTACT RESISTANCE: Below 20 m Ω typ. 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 B, G, P, Q or R 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.

Typical Applications

- Telecommunications
- Instrumentation





#### **Materials**

CASE: Glass filled nylon 6/6, flame retardant, heat stabilized or diallyl phthalate (DAP), (UL 94V-0) or glass filled nylon 4/6, flame retardant, heat stabilized.

ACTUATOR: Nylon, black standard.

BUSHING: Brass, nickel plated.

HOUSING: Stainless steel.

SWITCH SUPPORT: Brass, matte-tin plated.

MOUNTING BRACKET: Stainless steel.

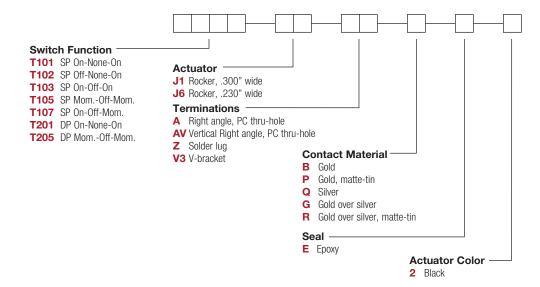
- END CONTACTS: B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Coin silver, silver plated. See page G-49 for additional contact materials.
- CENTER CONTACTS & TERMINALS: B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Copper alloy, silver plated. See page G-49 for additional contact materials.

TERMINAL SEAL: Epoxy.

HARDWARE: Nut, Screws & Lockwasher: Stainless steel. Standoff: Nylon standard.

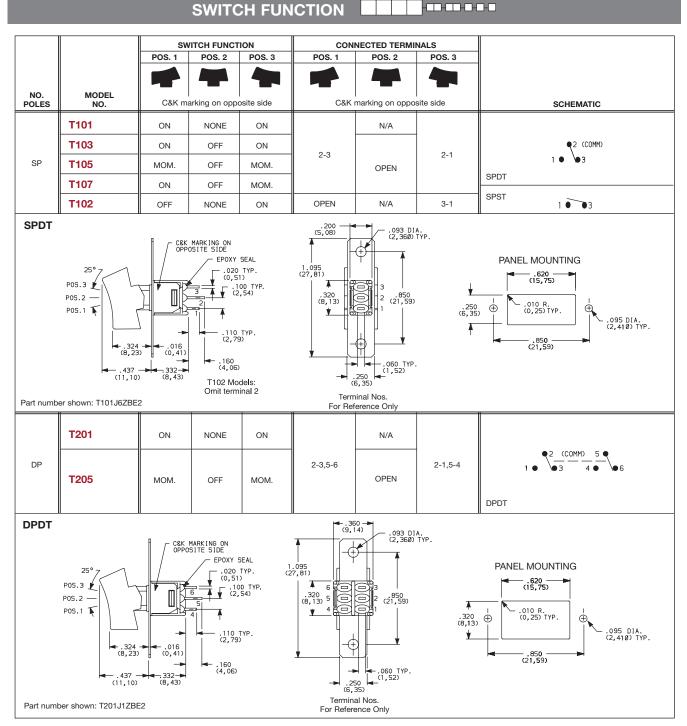
#### **Build-A-Switch**

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages G-46 through G-50. 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.









MOM. = Momentary

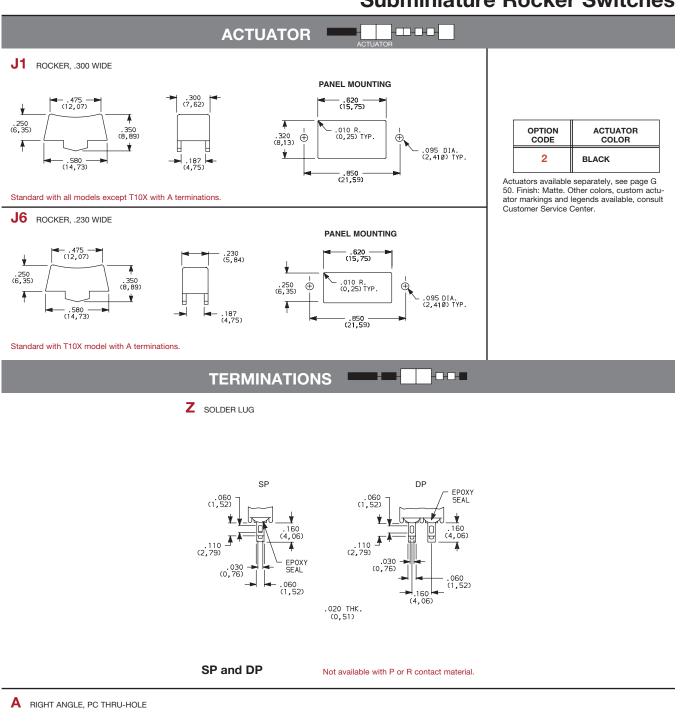
All models Number and a potions when ordered with G, Q or R contact material.

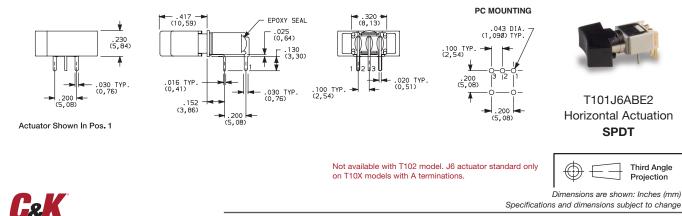
G



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





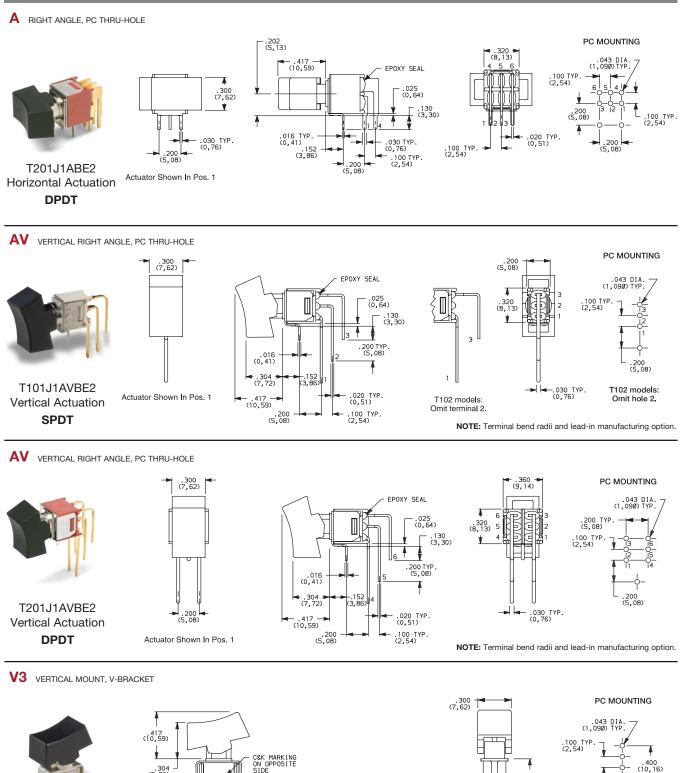


Rocker

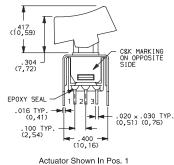
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TERMINATIONS

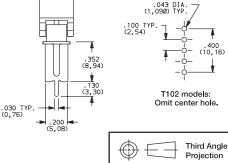


T101J1V3BE2 **SPDT** 









**C&K** 

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

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#### TERMINATIONS

V3 VERTICAL MOUNT, V-BRACKET

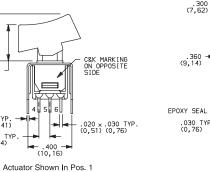
,417 (10,59)

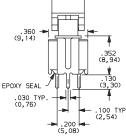
1

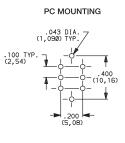
.304

.016 TYP. (0,41)

> .100 TYP (2,54)







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T201J1V3BE2 DPDT

#### CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS	
В		GOLD <sup>1</sup>	LOW LEVEL/	0.4 VA MAX. @ 20 V AC OB DC MAX.
Р	GOLD <sup>3</sup>	MATTE-TIN <sup>6</sup>	DRY CIRCUIT	
Q	SILVER <sup>4,5</sup>	SILVER 5	POWER	TX01 MODELS: 3 AMPS @ 120 V AC OR 28 V DC. ALL OTHER MODELS: 2 AMPS @ 120 V AC OR 28 V DC.
G	GOLD OVER	GOLD <sup>3</sup>	LOW LEVEL/DRY	TX01 MODELS: 0.4 VA MAX @ 20 V AC OR DC MAX. OR 3 AMPS @ 120 V AC OR 28 V DC.
R	SILVER <sup>2,3</sup>	MATTE-TIN <sup>6</sup>	CIRCUIT OR POWER	ALL OTHER MODELS: 0.4 VA MAX @ 20 V AC OR DC MAX. OR 2 AMPS @ 120 V AC OR 28 V DC.

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

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

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

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

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

 $^5$  CENTER CONTACT & ALL TERMINALS: Copper alloy, silver plated.

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

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

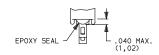
All models **N** with all options when ordered with G, Q, or R contact material. B contact material standard with A, AV, V3 terminations. Q contact material standard with C & Z terminations.

P & R contact materials not available with Z terminations.



E EPOXY SEAL

- RK





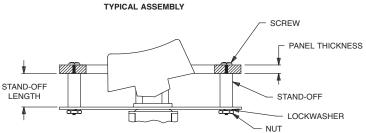
Dimensions are shown: Inches (mm) Specifications and dimensions subject to change



Dime Specifications and

### 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.



PART NO.	PANEL THK.	STANDOFF LENGTH
761101000	1/16 IN. (1,59)	.295 (7,49)
761102000	3/32 IN. (2,38)	.264 (6,71)
761103000	1/8 IN. (3,18)	.233 (5,92)

**NOTE:** Additional nuts, screws and lockwashers available separately, see Technical Data section of this catalog.



PART NO. 468002263 BLACK

Material: Nylon Finish: Matte

J1 Actuator

**NOTE:** Other colors, custom actuator markings and legends available, consult Customer Service Center.

PART NO. 468102263 BLACK

Material: Nylon Finish: Matte

J6 Actuator







G

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

C&K



#### Features/Benefits

- Thermoset UL 94V-0 housing
- Rugged construction
- Variety of actuator and termination options
- RoHS compliant

#### **Typical Applications**

- Small equipment
- Shut-off switch



**Specifications Materials** CONTACT RATING: CASE: Diallyl phthalate (DAP) (UL 94V-0). 9201 Model: ACTUATOR: Nylon, black standard. GP (general purpose) FRAME-REAR MOUNT OPTIONS: Spring steel, black. 6 AMPS 125 VAC 50/60 Hz T85 10,000 cycles (10E3) BUSHING: Brass, nickel plated. 3 AMPS 250 VAC 50/60 Hz T85 10,000 cycles HOUSING: Stainless steel. R (resistive) SWITCH SUPPORT: Brass or steel, matte-tin plated. 6 AMPS 30 VDC T85 10,000 cycles MOUNTING BRACKET: Stainless steel. 9221 Model: END CONTACTS: 9201 Model: Coin silver, silver plated. GP (general purpose) 9221 Model: Silver cadmium oxide. 10 AMPS 125 VAC 50/60 Hz T85 10,000 cycles CENTER CONTACTS: Copper alloy, silver plated 5 AMPS 250 VAC 50/60 Hz T85 10,000 cycles ALL TERMINALS: 9201 Model: Copper alloy, silver plated. R (resistive) 9221 Model: Copper alloy, matte-tin plated. 10 AMPS 30 VDC T85 10,000 cycles TERMINAL SEAL: Epoxy. ELECTRICAL LIFE: 25,000 make-and-break cycles at full load. HARDWARE: Nut, Screw & Lockwasher: Stainless steel. Standoff: Nylon standard, aluminum available, consult Customer 2-4 V DC, 100 mA. Service Center. INSULATION RESISTANCE:  $10^9 \Omega$  min. \*Cadmium used in electrical contacts is acceptable for RoHS. DIELECTRIC STRENGTH: 2,500 Vrms min. @ sea level. NOTE: Any models supplied with Q contact material are RoHS compliant. OPERATING TEMPERATURE: -30°C to 85°C. NOTE: Specifications and materials listed above are for switches with standard options. SOLDERABILITY: Per MIL-STD-202F method 208D, or For information on specific and custom switches, consult Customer Service Center. EIA RS-186E method 9 (1 hour steam aging).

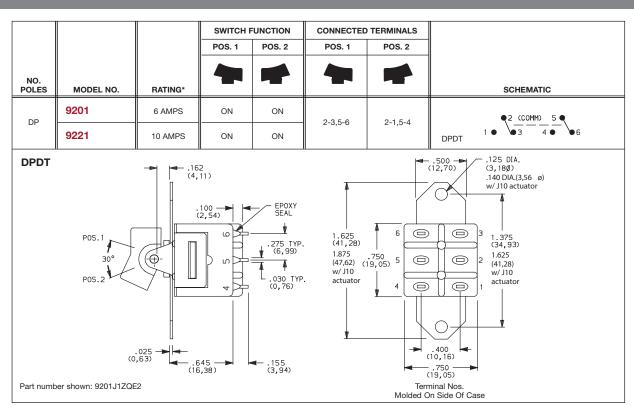
#### **Build-A-Switch**

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages G-52 through G-55. For additional options not shown in catalog, consult Customer Service Center.

Switch Function 9201 DP On-On, 6 Amps 9221 DP On-On, 10 Amps Actuator J1 Rocker J2 Lever J3 Rocker J37 Rocker with metal frame	Terminations Z Solder lug (9201 only) AV2 Vertical right angle, PC thru-ho C PC Thru-hole (9201 only) Z4 Quick connect Contact Material Q Silver	Dele (9201 only) Seal E Epoxy D No Seal Actuator Color 2 Black 1 White 3 Red	Frame Color 2 Black
			NONE No frame color required Dimensions are shown: Inches (mm Specifications and dimensions subject to chang



SWITCH FUNCTION



All 9000 Series models meet international dimensional and electrical requirements.

J1 ROCKER

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.156

.332 R. (8,43)

J2 LEVER

\* See CONTACT MATERIAL, page G-54, for complete ratings.

9221 model must be ordered with Z4 terminations and D seal option.

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-.531 -(13,49)

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- .664 -(16,87)

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.299

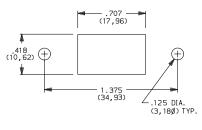
4

OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE
3	RED

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

**NOTE:** Hardware: two each—mounting screws, nuts, lockwashers and standoffs for 1/8 inch thick panel are supplied standard on all switches with panel mounting brackets. Actuators available separately, see page G-55. Hardware available separately, see Technical Data section of this catalog.

#### PANEL MOUNTING





# .365 (9,27)

.365



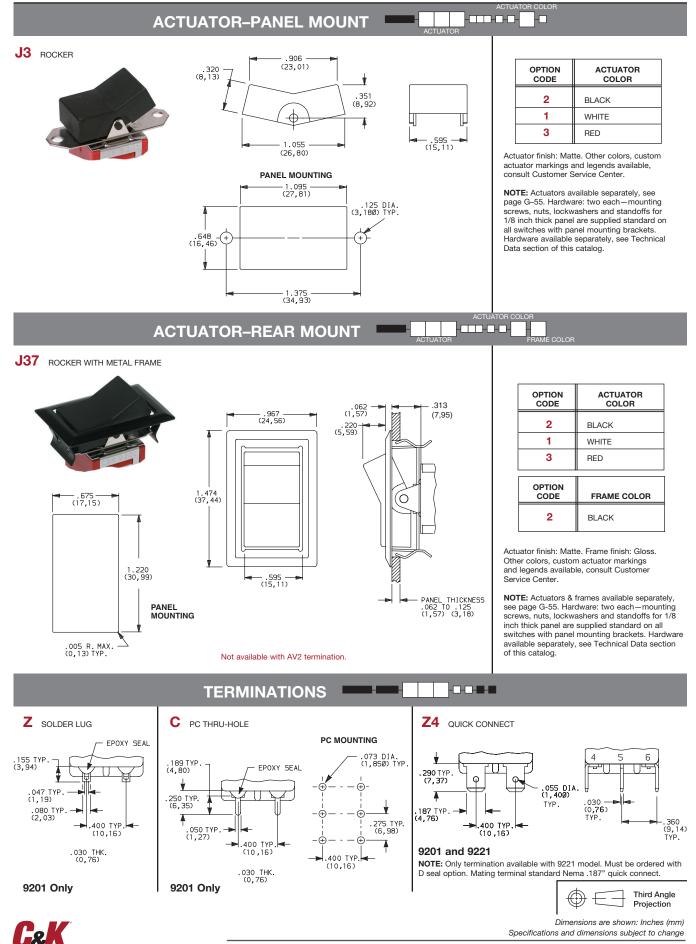
#### Third Angle Projection

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

G

.084 (2,13)

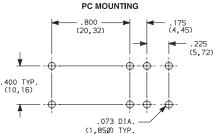
> .740 (18,80)



Rocker

#### **TERMINATIONS** AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE EPOXY SEAL A٦ 6 ۵ .750 (19,05) 5 ഗ $\subset$ .125 (3,18) L 4------Ł .100 MIN. .750 (2,54) .050 TYP. (1,27) TERMINALS AND SUPPORT .170 (4,32) 800 (19,05) (20,32) .030 TYP. (0,76) .400 SECTION A-A 9201J1AV2QE2 .225 (5,72) .175 Terminal Nos. Molded Vertical Actuation On Side of Case DPDT PC MOUNTING

Actuator Shown In Pos. 1



#### 9201 Only

NOTE: Terminal bend radii and lead-in manufacturing option. Terminal spacing greater than 3mm at all points.

#### **CONTACT MATERIAL** T

OPTION CODE	MODEL	CONTACT MATERIAL	TERMINAL PLATING	RATINGS
	9201	SILVER <sup>1,2</sup>	SILVER OR TIN <sup>2,5</sup>	GP (general purpose) 6 AMPS 125 VAC 50/60 Hz T85 10,000 cycles (10E3) 3 AMPS 250 VAC 50/60 Hz T85 10,000 cycles R (resistive) 6 AMPS 30 VDC T85 10,000 cycles
Q	9221	SILVER CADMIUM OXIDE 3,4,6	TIN <sup>5</sup>	GP (general purpose) 10 AMPS 125 VAC 50/60 Hz T85 10,000 cycles 5 AMPS 250 VAC 50/60 Hz T85 10,000 cycles R (resistive) 10 AMPS 30 VDC T85 10,000 cycles

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

<sup>1</sup> END CONTACTS: Coin silver, silver plated.

<sup>3</sup> END CONTACTS: Silver cadmium oxide.

<sup>2</sup> CENTER CONTACTS & ALL TERMINALS: Copper alloy, silver plated.

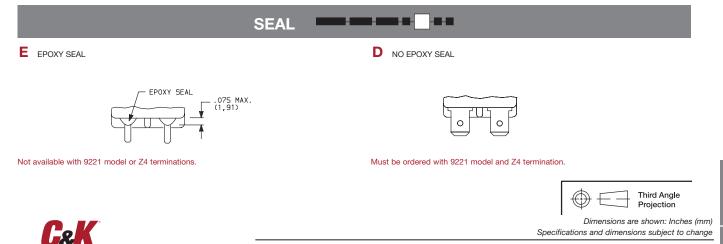
NOTE: Any models supplied with Q contact material is RoHS compliant. 9221 model must be ordered with Z4 terminations and D seal option.

All 9000 Series models meet international dimensional and electrical requirements.



<sup>4</sup> CENTER CONTACTS: Copper alloy, silver plated. <sup>5</sup> Z4 TERMINALS ONLY: Copper alloy, tin plated.

<sup>6</sup> Cadmium used for electrical contacts is acceptable for RoHS.

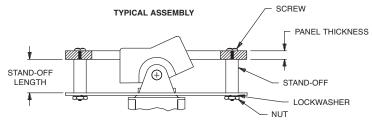


Rocker

TYT

### **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
761101000	1/16 IN. (1,59)	.295 (7,49)
761102000	3/32 IN. (2,38)	.264 (6,71)
761103000	1/8 IN. (3,18)	.233 (5,92)



G





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

#### Features/Benefits

- Nice actuator styling with multiple options
- Guards to prevent accidental actuation
- Momentary and maintained functions
- IP65 splash proof rubber boot option
- RoHS compliant

### c **FL**us UL 61058-1

#### **Specifications**

**Materials** 

Typical Applications

Small appliances

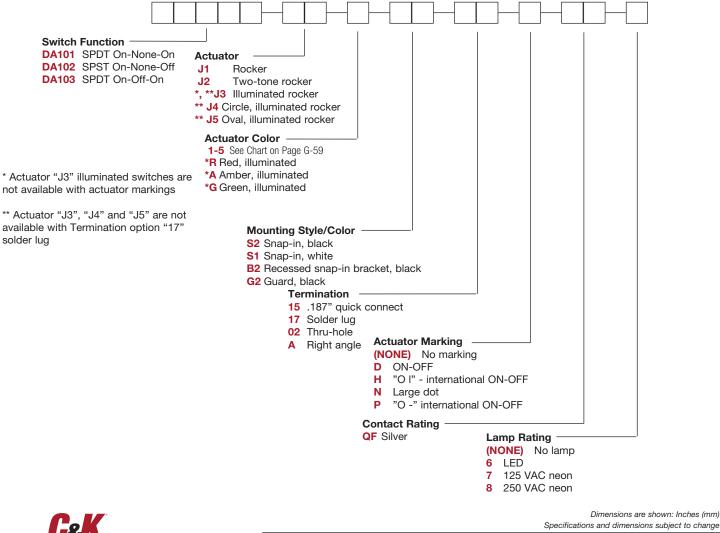
CONTACT RATING: 16 AMPS @ 125 VAC, 1/3 HP; 10 AMPS @ 250 VAC, 1/2 HP. 10 AMPS @ 125 VAC, 6 AMPS @ 250 VAC. ELECTRICAL LIFE: 10,000 make and break cycles at full load. INSULATION RESISTANCE:  $10^8 \Omega$  min. DIELECTRIC STRENGTH: 1,500 VRMS @ sea level. OPERATING TEMPERATURE: -20°C to +85°C

HOUSING AND ACTUATOR: 6/6 nylon (UL94V-2), black, matte finish. ILLUMINATED ACTUATOR: Polycarbonate, matte finish. CENTER CONTACTS: Silver plated, copper alloy. END CONTACTS: Silver plated. ALL TERMINALS: Silver plated, copper alloy.

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

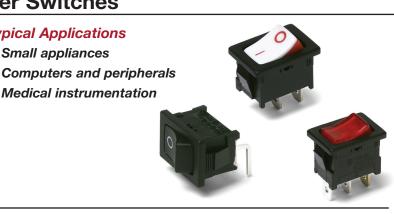
#### **Build-A-Switch**

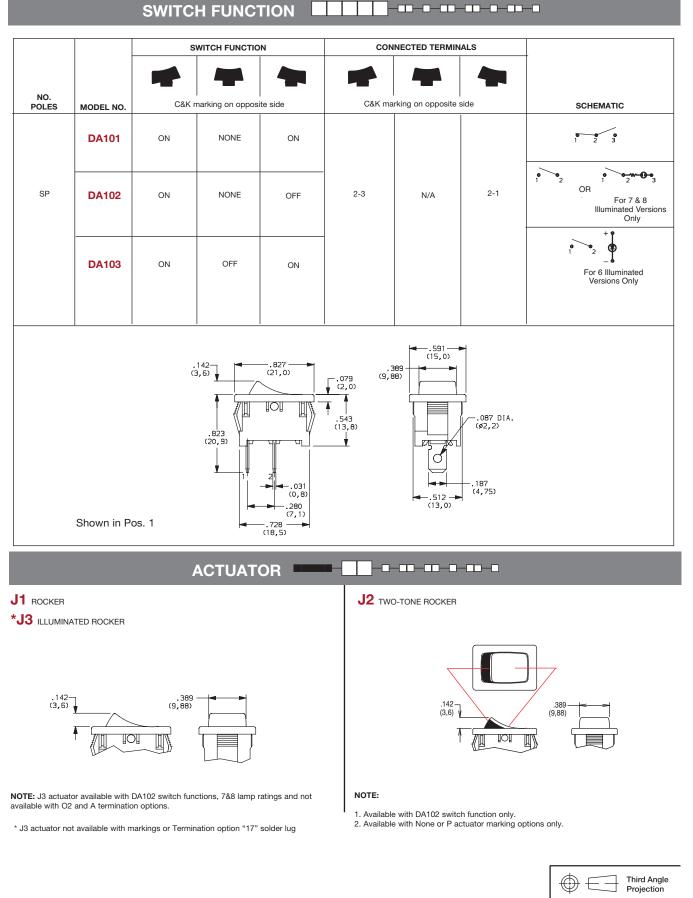
To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages G-57 through G-59. For additional options not shown in catalog, consult Customer Service Center.











- RK

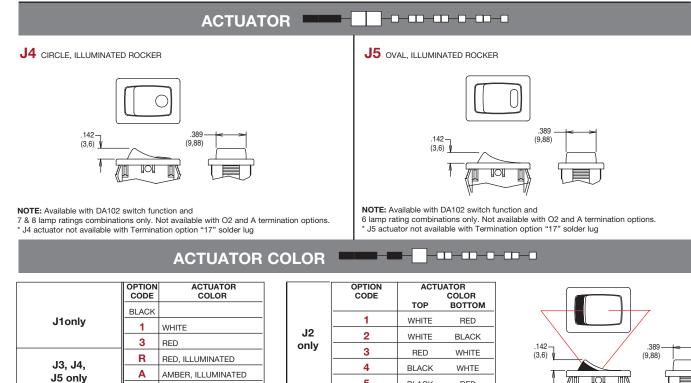
Rocker

G

Dimensions are shown: Inches (mm)

Specifications and dimensions subject to change

Projection



#### **MOUNTING STYLE/COLOR** -----

5

BLACK

.700

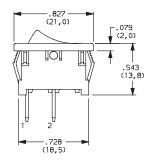
(17,78)

0

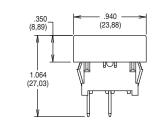
RED

#### S2 SNAP-IN, BLACK

S1 SNAP-IN, WHITE



G2 GUARD, BLACK



NOTE: Available with DA10X switch functions only.

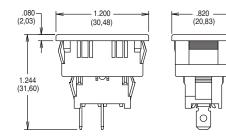


⁄₪ lo 1

	•'X'	
PANEL THICKNESS	"Х"	"Y"
0.030-0.049 (0,75-1,25)	0.756004 (19,2-0,1)	0.512+.004 (13,0+0,1)
0.049-0.079 (1,25-2,0)	0.764004 (19,4-0,1)	0.512+.004 (13,0+0,1)
0.079-0.118 (2,0-3,0)	0.779004 (19,8-0,1)	0.512+.004 (13,0+0,1)

Actuator shown in Pos. 1

B2 RECESSED SNAP-IN BRACKET, BLACK



G

GREEN, ILLUMINATED

-.591-(15,0)

Ο

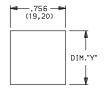
.512 -

(13,0)

NOTE: Available with DA10X switch functions only.



**B2 PANEL MOUNTING** 



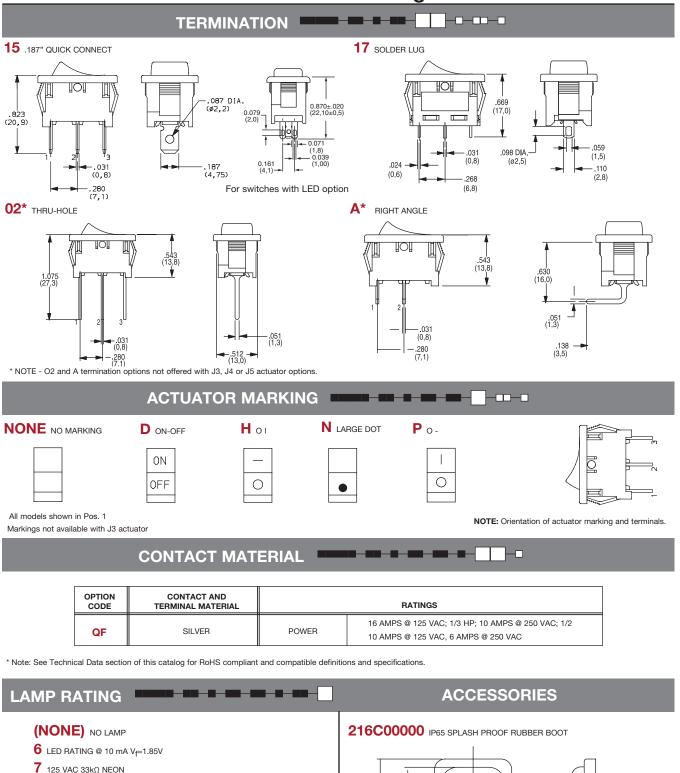
PANEL THICKNESS	"Y"
0.030-0.049 (0,75-0,25)	1.068 (27,13)
0.049-0.079 (1,25-2,0)	1.076 (27,33)
0.079-0.118 (2,0-3,0)	1.092 (27,74)

Third Angle Projection

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

G

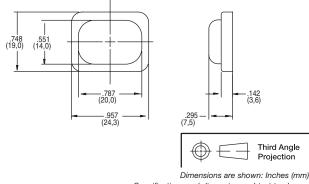
Rocker



8 250 VAC 150kΩ NEON



-2.



Specifications and dimensions subject to change

#### Features/Benefits

- Momentary and maintained models
- PC and quick connect terminals
- Recessed bracket available prevents accidental actuation
- RoHS compliant
- Gold plated options available

#### **Specifications** CONTACT RATING: D101, D102, D103, D105, D108, D201, D202, D203 GP (general purpose) 4 AMPS 125 VAC 50/60 Hz T85 10,000 cycles 2 AMPS 250 VAC 50/60 Hz T85 10,000 cycles R (resistive) 4 AMPS 30 VDC T85 10,000 cycles D501, D502, D503, D508, D601, D602, D608 GP (general purpose) 10 AMPS 125 VAC 50/60 Hz T85 10,000 cycles 5 AMPS 250 VAC 50/60 Hz T85 10,000 cycles R (resistive) 10 AMPS 30 VDC T85 10,000 cycles 0.4VA @ 20V AC/DC (gold plating) available upon request ELECTRICAL LIFE: 10,000 make-and-break cycles at full load. INSULATION RESISTANCE: 10<sup>9</sup> Ω min. DIELECTRIC STRENGTH: 1,000 Vrms min. @ sea level.

### Typical Applications

- Small appliances
- Computers and peripherals ۲
- Medical instrumentation



UL 61058-1

#### Materials

ACTUATOR & HOUSING: 6/6 nylon (UL 94V-2), color black, finish: matte.

MOVABLE CONTACTS: D10X and D20X Models: Copper, silver plated. D50X and D60X Models: Coin silver, silver plated.

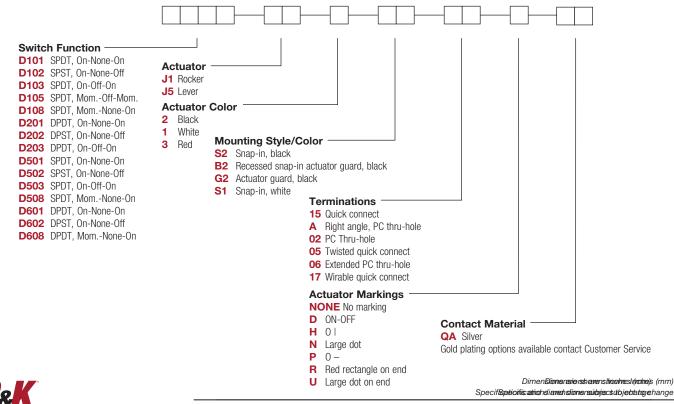
STATIONARY CONTACTS AND TERMINALS: Copper or brass, silver plated. Gold plating available.

CONTACT SPRING: Music wire or stainless steel. OPERATING TEMPERATURE: -30°C to +65°C

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

#### **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-61 through G-64. For additional options not shown in catalog, consult Customer Service Center.

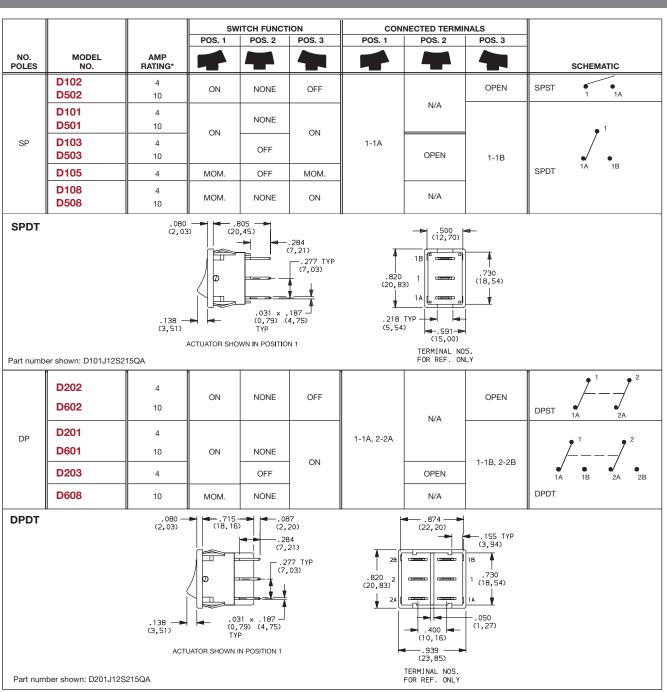




1

G

Rocker



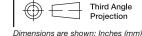
SWITCH FUNCTION

MOM. = Momentary \*AMP RATING: see G-60 See CONTACT MATERIALS, page G-64.

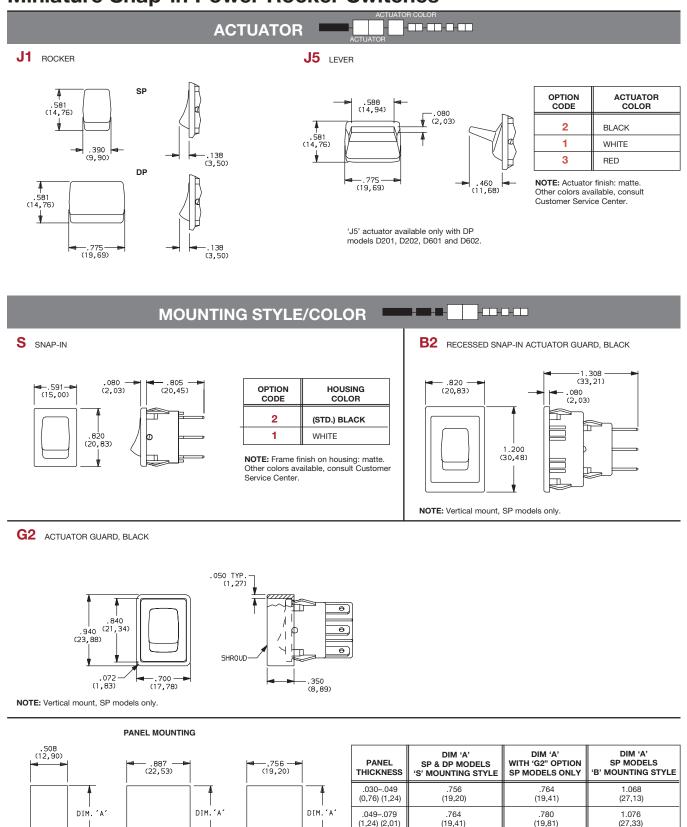








Dimensions are shown: Inches (mm) Specifications and dimensions subject to change



G

Projection Dimensions are shown: Inches (mm)

Specifications and dimensions subject to change

(27,33)

1.092

(27,74)

n/a

 $\bigcirc$ 

Third Angle



(1,24) (2,01)

.079–.118

(2,01) (3,00)

SP MODELS

'B2' mounting style

SP MODELS

'S' & 'G2' mounting styles

DP MODELS

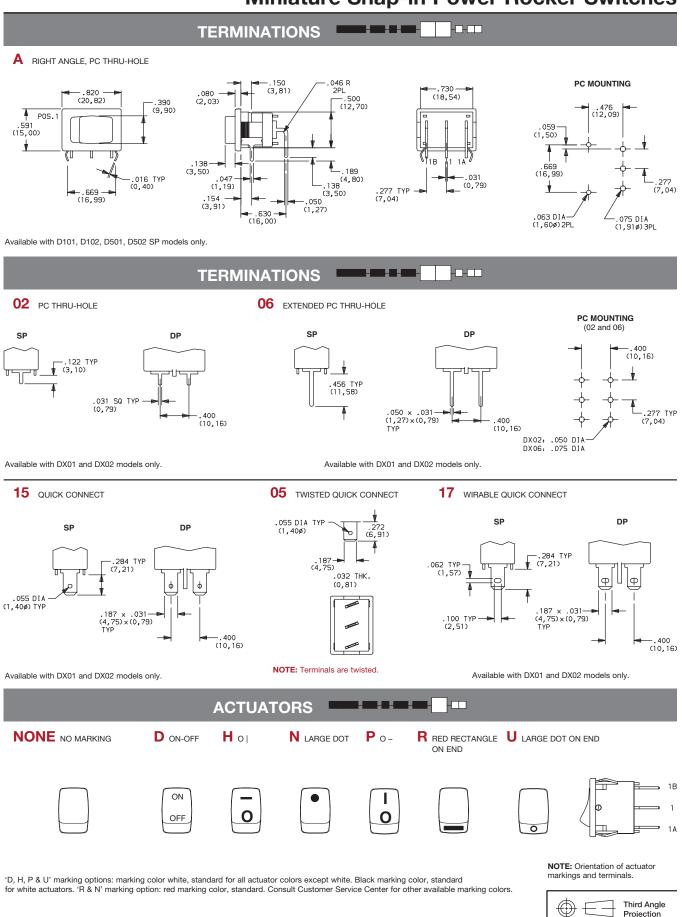
'S' mounting style

NOTE: Blank insert available for SP models only, see page G-64.

(19,41)

.780

(19.81)



C&K

Rocker

G

www.ckswitches.com

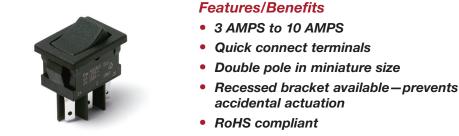
Dimensions are shown: Inches (mm)

Specifications and dimensions subject to change

TOTALTY CONTACTS & TERMINALS: Copper or brass, silver plated     ef ory     Image: Control of the second cluster for cluster, for one of the second cluster for the second cluster for cluster, for one of the second cluster, for			CONTA	CT MATERIAL	
OA       SILVER 1       GP general purposit       A.MeS 125 VAC 5000 Hz T85 10,000 cycles         CA       SILVER 1       GP general purposit       A.MeS 20 VAC 5000 Hz T85 10,000 cycles         CA       GP general purposit       A.MeS 20 VAC 5000 Hz T85 10,000 cycles         CA       GP general purposit       A.MeS 20 VAC 5000 Hz T85 10,000 cycles         CA       GP general purposit       A.MeS 20 VAC 5000 Hz T85 10,000 cycles         CA       GP general purposit       A.MeS 20 VAC 5000 Hz T85 10,000 cycles         CA       MST 12 VAC 5000 Hz T85 10,000 cycles       GP general purposit       A.MeS 20 VAC 5000 Hz T85 10,000 cycles         CA       MST 12 VAC 5000 Hz T85 10,000 cycles       GP general purposit       A.MeS 20 VAC 5000 Hz T85 10,000 cycles         CA       MST 12 VAC 5000 Hz T85 10,000 cycles       GP general purposit       A.MeS 20 VAC 5000 Hz T85 10,000 cycles         CA       MST 12 VAC 5000 Hz T85 10,000 cycles       GP general purposit       A.MeS 20 VAC 5000 Hz T85 10,000 cycles         CA       MST 12 VAC 5000 Hz T85 10,000 cycles       GP general purposit       GP gene					RATINGS
DEXX and DEXX MODELS: Consider, silver plated. TRONARY CONTACTS & TERMINALS: Copper or branes, silver plated.		QA	SILVER <sup>1</sup>	GP (general purpose)         4 AMPS 12           2 AMPS 25           R (resistive)         4 AMPS 30           D501, D502, D503, D508, D601, D602           GP (general purpose)         10 AMPS 1           5 AMPS 25	5 VAC 50/60 Hz T85 10,000 cycles 0 VAC 50/60 Hz T85 10,000 cycles VDC T85 10,000 cycles 1, D608 25 VAC 50/60 Hz T85 10,000 cycles 0 VAC 50/60 Hz T85 10,000 cycles
rt Ony Pecessed Actuator Guard, SP Only Pecessed Actuator Guard, SP Only Pecessed Actuator Guard, SP Only Pecessed Actuator Guard, SP Only Final-Matter SPD02000 ELACK read: Mon 6/d sh: Matter uator Guard Final-Matter TNO.	D50X and D60X	K MODELS: Coir	n silver, silver plated.	c 🔊 us 🕂 15	0.4VA @ 20V AC/DC Gold plated options avilable contact Customer Servi
Only SP Only SPONLY SPONL				AVAILABLE HARD	WARE
FT NO. $FT NO.$ $F$	sert 9 Only				
Interial: Nylon 6/6       Material: 6/6 Nylon         nish: Matte       Finish: Matte         ctuator Guard       PART NO. $1, 510$ $10, 510$ $1, 510$ $10, 510$ $1, 510$ $10, 510$ $1, 510$ $10, 510$ $1, 510$ $10, 510$ $1, 510$ $10, 510$ $10, 29, 50$ $10, 610$ $10, 29, 500$ $10, 610, 610$ $10, 200, 100, 100, 100, 100, 100, 100, 1$			.730 (18,54) .822	.358 (9,09)	
ART NO. 216C00000 IP65 SPLASH PROOF RUBBER BOOT (12, 35) (12, 78) (12, 78) (1	57190200 BLA aterial: Nylon 6/6	ACK			Material: 6/6 Nylon
$\begin{array}{c} \begin{array}{c} .510 \\ \hline & .840 \\ .940 \\ (21, 34) \\ \hline & .840 \\ (23, 88) \\ \hline & .780 \\ (19, 81) \\ \hline & .72 \\ (1, 83) \end{array} \xrightarrow{(17, 78)} $	tuator Guard				
aterial: PBT thermoplastic nish: Matte	04C22000 aterial: PBT therm	.940 (23,88) .C .C	(12,95) .840 (21,34)	.780 (19, 81)	



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



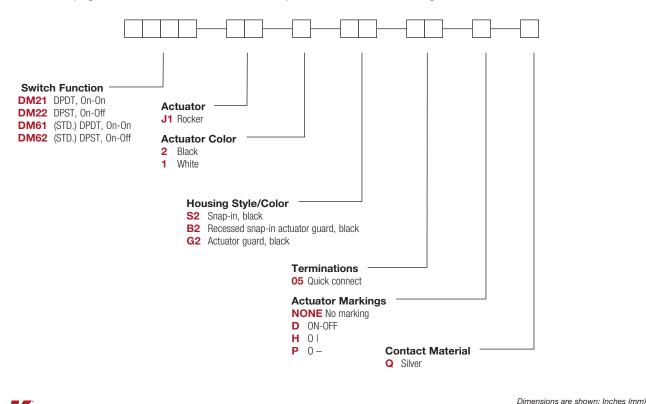
#### **Typical Applications**

- Computers
- Appliances
- Electric tools
- UL 61058-1 c 🕄 us 🛣 15

#### **Specifications Materials** CONTACT RATING: HOUSING & ACTUATOR: 6/6 nylon (UL94V-2), black. DM21, DM22: MOVABLE CONTACTS: DM2X Models: Copper, silver plated. DM6X Models: Coin silver, silver plated. GP (general purpose) 3 AMPS 125 VAC 50/60 Hz T85 10,000 cycles STATIONARY CONTACTS & TERMINALS: Copper or brass, silver plated. 2 AMPS 250 VAC 50/60 Hz T85 10,000 cycles CONTACT SPRING: Music wire or stainless steel. R (resistive) 3 AMPS 30 VDC T85 10,000 cycles DM61, DM62: NOTE: Any models supplied with Q contact material are RoHS compliant. GP (general purpose) NOTE: Specifications and materials listed above are for standard switches. 10 AMPS 125 VAC 50/60 Hz T85 10,000 cycles For information on specific and custom switches, consult Customer Service Center. 5 AMPS 250 VAC 50/60 Hz T85 10,000 cycles R (resistive) 10 AMPS 30 VDC T85 10,000 cycles ELECTRICAL LIFE: 10,000 make-and-break cycles at full load. INSULATION RESISTANCE: $10^9 \Omega$ min. DIELECTRIC STRENGTH: 1,000 Vrms min. @ sea level. OPERATING TEMPERATURE: -20°C to +65°C

#### **Build-A-Switch**

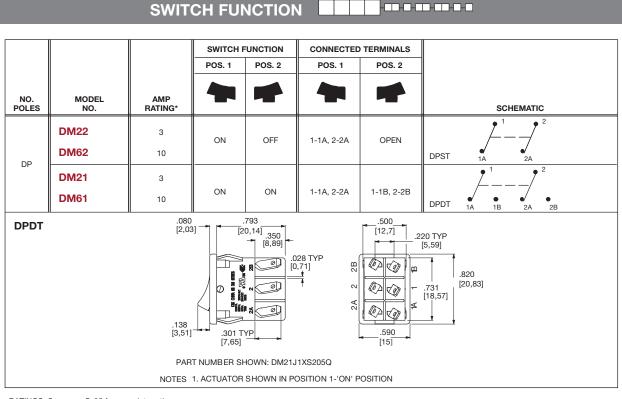
To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages G–66 and G–68. For additional options not shown in catalog, consult Customer Service Center.







Specifications and dimensions subject to change



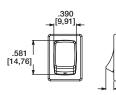
RATINGS: See page G-65 for complete ratings.



UL 61058-1 tested to 30C temperature rise @ 6,000 cycles.



J1 ROCKER



OPTION CODE	ACTUATOR COLOR	
2	BLACK	
1	WHITE	

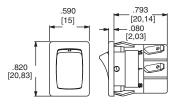
NOTE: Actuator finish: matte. Other colors available, consult Customer Service Center.

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B2 RECESSED SNAP-IN ACTUATOR GUARD, BLACK

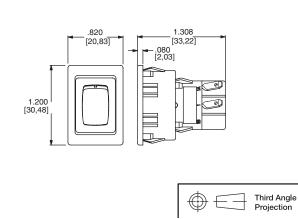
#### **HOUSING STYLE/COLOR**

S2 SNAP-IN, BLACK



NOTE: Housing finish: matte. Other colors available, consult Customer Service Center.



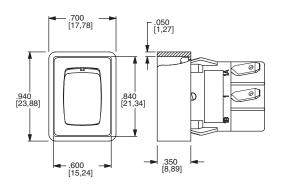


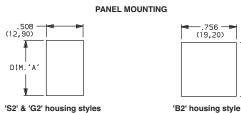
Dimensions are shown: Inches (mm) Specifications and dimensions subject to change Rocker

TTT

#### HOUSING STYLE/COLOR ----

G2 ACTUATOR GUARD, BLACK







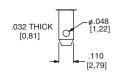
NOTE: Blank insert available for SP models only, see page H-76.

PANEL THICKNESS	DIM 'A' 'S2' & 'G2' HOUSING STYLES	DIM 'A' 'G2' OPTION SP MODELS ONLY	DIM 'A' 'B2' HOUSING STYLES
.030–.049	.756	0.764	1.068
(0,76) (1,24)	(19,20)	(19,41)	(27,13)
.049–.079	.764	0.780	1.076
(1,24) (2,01)	(19,41)	(19,81)	(27,33)
.079–.118	.780	n/a	1.092
(2,01) (3,00)	(19,81)		(27,74)

-0-0

#### **TERMINATIONS**

05 QUICK CONNECT



NONE NO MARKING	D ON-OFF	Нот	<b>P</b> o-				
	ON OFF	<b>–</b> <b>0</b>					

NOTE: Orientation of actuator markings and terminals.

<sup>1</sup>D & P' marking options: marking color white, standard for all actuator colors except white actuators. Black marking color standard for white actuators. Consult Customer Service Center for other available marking colors.

### **CONTACT MATERIAL**

OPTION CODE	CONTACT AND TERMINAL MATERIAL	RATINGS			
•	SILVER <sup>1,2</sup>	DM21, DM22:	GP (general purpose)	3 AMPS 125 VAC 50/60 Hz T85 10,000 cycles	
Q	GIEVEN			2 AMPS 250 VAC 50/60 Hz T85 10,000 cycles	
			R (resistive)	3 AMPS 30 VDC T85 10,000 cycles	
		DM61, DM62:	GP (general purpose)	10 AMPS 125 VAC 50/60 Hz T85 10,000 cycles	
				5 AMPS 250 VAC 50/60 Hz T85 10,000 cycles	
			R (resistive)	10 AMPS 30 VDC T85 10,000 cycles	

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

<sup>1</sup> MOVABLE CONTACT: DM2X Models: Copper, silver plated. DM6X Models: Coin silver, silver plated.

<sup>2</sup> STATIONARY CONTACTS & TERMINALS: Copper or brass, silver plated.

NOTE: Any models supplied with Q contact material are RoHS compliant.



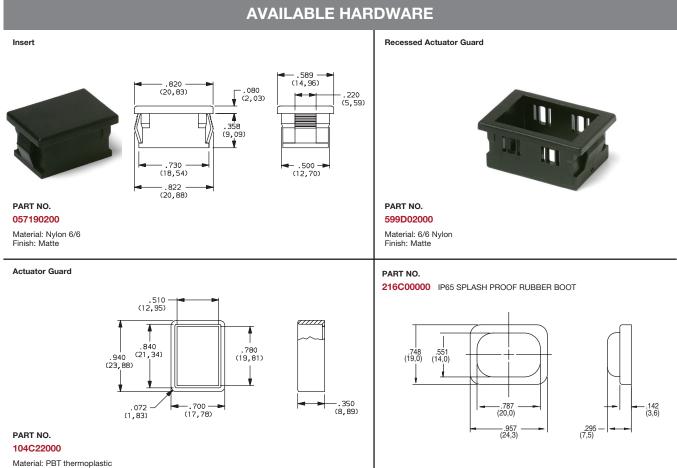
Dimensions are shown: Inches (mm)

Specifications and dimensions subject to change



-2

c 91 US (15



Finish: Matte

CeK 2 aug 16

G



Dimensions are shown: Inches (mm)

Specifications and dimensions subject to change



### **DM** Series **Miniature Illuminated Power Rocker Switches**



#### Features/Benefits

- 3 AMPS to 10 AMPS
- Illuminated LED
- Positive detent
- **RoHS** compliant

### **Typical Applications**

- Instrumentation
- Industrial
- Office machines

c <b>AJ</b> <sup>15</sup> (	JL 61058-1
-----------------------------	------------

3 AMPS 30 VDC 10,000 cycles

10 AMPS 30 VDC 10,000 cycles

DIELECTRIC STRENGTH: 1.000 Vrms min. @ sea level.

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

**Specifications** 

CONTACT RATING:

GP (general purpose)

R (resistive)

R (resistive)

DM14 and DM24 Models:

DM54 and DM64 Models:

GP (general purpose)

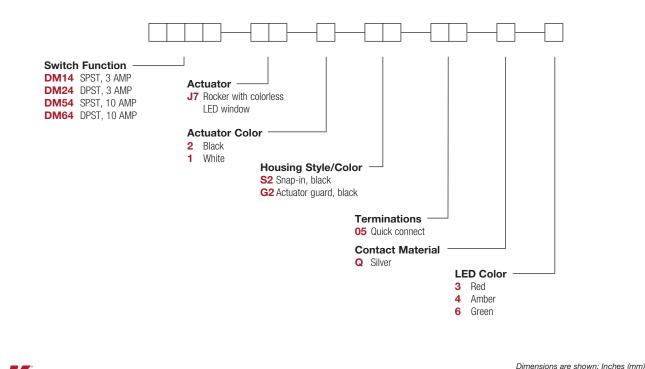
#### **Materials**

HOUSING: 6/6 nylon (UL94V-2), black. ACTUATOR: 6/6 nylon (UL94V-2), black. MOVABLE CONTACTS: DM14 and DM24 Models: Copper, silver plated. DM54 and DM64 Models: Coin silver, silver plated. 3 AMPS @ 125 V AC; 2 AMPS @ 250 V AC. STATIONARY CONTACTS & TERMINALS: Copper or brass, silver plated. LED TERMINALS: Brass, unplated. CONTACT SPRING: Music wire or stainless steel. OPERATING TEMPERATURE: -20°C to +65°C 10 AMPS @ 125 V AC; 5 AMPS @ 250 V AC (UL). NOTE: Any models supplied with Q contact material are RoHS compliant. ELECTRICAL LIFE: 10,000 make-and-break cycles at full load.

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

#### **Build-A-Switch**

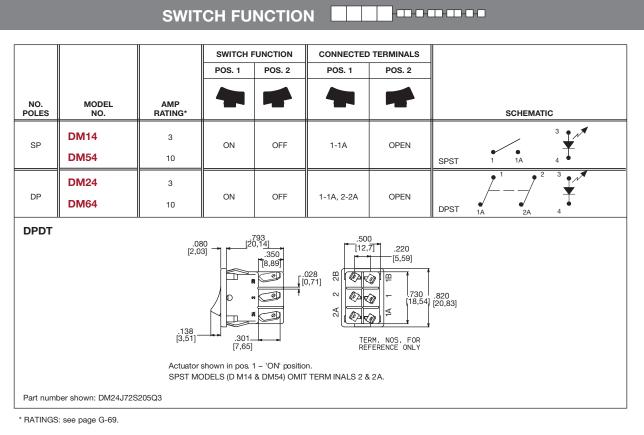
To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages G-70 and G-72. For additional options not shown in catalog, consult Customer Service Center.



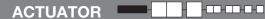


Specifications and dimensions subject to change

### DM Series Miniature Illuminated Power Rocker Switches



c 🕄 US 🔣 15

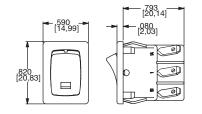


J7 ROCKER WITH COLORLESS LED WINDOW



### HOUSING STYLE/COLOR

S2 SNAP-IN, BLACK



NOTE: Housing finish: matte. Other colors available, consult Customer Service Center.





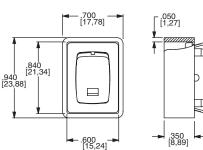
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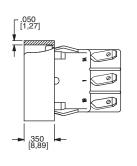
Dimensions are shown: Inches (mm) Specifications and dimensions subject to change Rocker

### DM Series Miniature Illuminated Power Rocker Switches

### HOUSING STYLE/COLOR

G2 ACTUATOR GUARD, BLACK







NOTE: Blank insert available for SP models only, see page H-80.

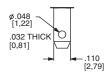
PANEL THICKNESS	DIM 'A' 'S2' & 'G2' HOUSING STYLES	DIM 'A' with 'G2' option SP MODELS ONLY
.030–.049	0.756	0.764
(0,76) (1,24)	(19,20)	(19,41)
.049–.079	0.764	0.780
(1,24) (2,01)	(19,41)	(19,81)
.079–.118 (2,01) (3,00)	.780 (19,81)	

-0-0

NOTE: Any models supplied with Q contact material are RoHS compliant.

### TERMINATIONS

05 QUICK CONNECT



### CONTACT MATERIAL

OPTION CODE	CONTACT AND TERMINAL MATERIAL	RATINGS					
	SILVER 1,2	DOWED	DM14, DM24:	GP (general purpose)	3 AMPS @ 125 V AC; 2 AMPS @ 250 V AC.		
Q	OILVEIT	POWER		R (resistive)	3 AMPS 30 VDC 10,000 cycles		
			DM54, DM64:	GP (general purpose)	10 AMPS @ 125 V AC; 5 AMPS @ 250 V AC.		
				R (resistive)	10 AMPS 30 VDC 10,000 cycles		

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

<sup>1</sup> MOVABLE CONTACTS: DM14 and DM24 models: Copper, silver plated. DM54 and DM64 models: Coin silver, silver plated.

<sup>2</sup> STATIONARY CONTACTS & TERMINALS: Copper or brass, silver plated.



### LED COLOR

						RECOMMENDED RESISTOR @ VOLTAGE		
OPTION CODE	LED COLOR	FORWARD V <sub>FD</sub>	CURRENT LLED	REVERSE V <sub>R</sub>		5V	12V	24V
3	Red	2.1	10	4V	1.6 typ.	270	1K	2.2K
4	Amber	2.2	20	4V	2.5 typ.	150	510	1.2K
6	Green	2.1	20	4V	2.0 typ.	150	510	1.2K

Rocker



-2

Specifications and dimensions subject to change

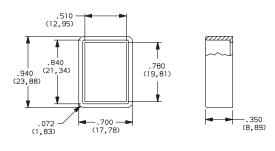
Dimensions are shown: Inches (mm)

Third Angle Projection

# **DM Series Miniature Illuminated Power Rocker Switches**

#### **AVAILABLE HARDWARE** Blank Insert Recessed Bracket — .589 — (14,96) -.820 -(20,83) (2,03) -.220 (5,59) .358 (9,09) 730 - .500 -(18,54) -.822 -(20,88) PART NO. PART NO. 057190200 599D02000 Material: Zinc nylon 6/6 Material: 6/6 Nylon Finish: Matte Finish: Matte

Actuator Guard



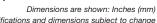
PART NO. 104C22000

CeK 6 jul 17

Material: PBT thermoplastic Finish: Matte

Rocker





G



G-73





### Features/Benefits

- Power switching up to 16 AMPS
- Sub-panel and Front-panel mounting
- PC and quick connect terminals
- Multi-position and multi-pole function
- RoHS compliant

### **Typical Applications**

- Computers
- Power supplies
- Appliances
- Fitness equipment
- Off-road vehicles



#### **Specifications**

CONTACT RATING: 16 AMPS @ 125, 250 V AC; 1/4 HP @ 125 V AC; 1/2 HP @ 250 V AC; 6 AMPS @ 48 V DC, 2 AMPS @ 60 V DC, 11 AMPS @ 30 V DC

ELECTRICAL LIFE: 10,000 make-and-break cycles at full load. INSULATION RESISTANCE:  $10^9 \Omega$  min.

DIELECTRIC STRENGTH: 1,000 Vrms min. @ sea level. OPERATING TEMPERATURE: -20°C to +85°C Materials

HOUSING & ACTUATOR: 6/6 nylon (UL 94V-2), black, finish: matte. CONTACTS: Fine silver, silver plated.

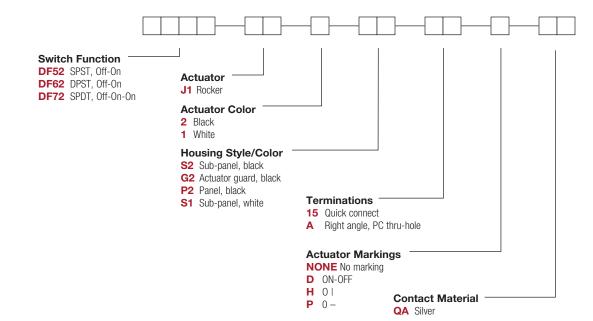
TERMINALS: Copper, silver plated.

CONTACT SPRING: Music wire or stainless steel.

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

#### **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–74 thru G–76. For additional options not shown in catalog, consult Customer Service Center.





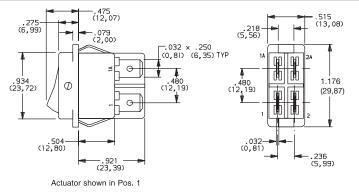
www.ckswitches.com

# DF Series Power Rocker Switches

## SWITCH FUNCTION

		SWITCH F		CONNECTED	TERMINALS	
		POS. 1	POS. 2	POS. 1	POS. 2	
NO. POLES	MODEL NO.					SCHEMATIC
SP	DF52	OFF	ON	OPEN	1-1A	SPST 1A
DP	DF62	OFF	ON	OPEN	1-1A, 2-2A	DPST 1A 2A

Part Number shown DF62J12S215QA



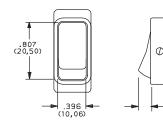
NO. POLES	MODEL NO.	POS. 1	POS. 2	POS. 3	POS. 1	POS. 2	POS. 3	SCHEMATIC
SP	DF72	OFF	ON	ON	OPEN	1 / 2-2A	1 / 2-1A 1 / 2-2A	POS. 1 POS. 2 POS. 3 1a 2a 1a 2a 1a 2a 1 2 1 2 1 2

All models

#### 

-.275 (6,99)

J1 ROCKER

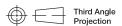


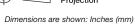
OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE

**NOTE:** Actuator finish: matte. Other colors available, consult Customer Service Center.



G

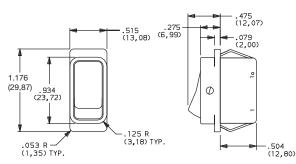




# DF Series Power Rocker Switches

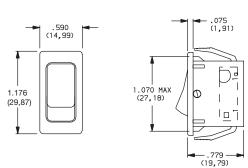
## HOUSING STYLE/COLOR

#### S SUB-PANEL

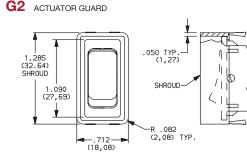


NOTE: DF52 & DF62 models only.





**NOTE:** Not available with 'A' termination. Available in black only.

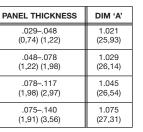


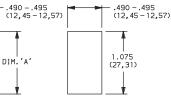
**NOTE:** Not available with 'A' termination. Available in black only.

OPTION CODE	HOUSING COLOR
2	(STD.) BLACK
1	WHITE

NOTE: Housing finish: matte. Other colors available, consult Customer Service Center.

#### PANEL MOUNTING



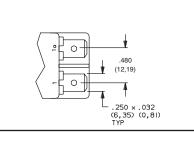


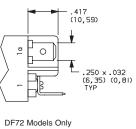
DF52 & DF62 Models with 'S' housing style

DF52, DF62 & DF72 Models with 'P2' & 'G2' housing style

### TERMINATIONS

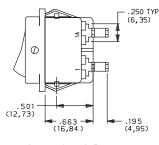
15 QUICK CONNECT



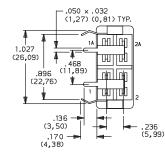


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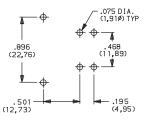
A RIGHT ANGLE, PC THRU-HOLE



Actuator shown in Pos. 1 NOTE: DF52 and DF62 Models Only



PC MOUNTING



Dimensions are shown: Inches (mm)

www.ckswitches.com

Rocker





# **DF Series Power Rocker Switches**

NONE NO MARKING D ON-	OFF <b>H</b> O	<b>P</b> o-	
		0	

NOTE: Orientation of actuator markings and terminals.

<sup>1</sup>D, H, & P' marking options: marking color white, standard for all actuator colors except white. Marking color black, standard for white actuators. Consult Customer Service Center for other available marking colors.

CONTACT MATERIAL	
------------------	--

OPTION CODE	CONTACT AND TERMINAL MATERIAL		RATINGS
QA	SILVER <sup>1,2</sup> POWER		16 AMPS @ 125, 250 V AC; 1/4 HP @ 125 V AC; 1/2 HP @ 250 V AC; 6 AMPS @ 48 V DC (UL), 2 AMPS @ 60 V DC, 11 AMPS @ 30 V DC
			16 AMPS @ 125, 250 V AC; 1/4 HP @ 125 V AC; 1/2 HP @ 250 V AC (UL)

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

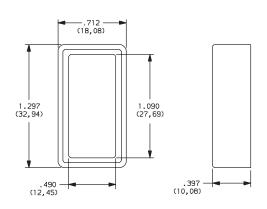
<sup>1</sup> CONTACTS: Fine silver, silver plated.

<sup>2</sup> TERMINALS: Copper, silver plated.

All models

## **AVAILABLE HARDWARE**

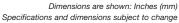
#### Actuator Guard



#### PART NO. 285B02000

Material: Nylon 6/6 Finish: Matte





Rocker



### Features/Benefits

- Round actuator and body
- Nice styling
- Multiple illuminated versions available
- IP65 splash proof rubber boot option

# ւ**թե**սs UL 61058-1

### Specifications

CONTACT RATING:

16 AMPS @ 125 VAC, 10 AMPS @ 250 VAC. 16 AMPS @ 125 VAC, 10 AMPS @ 250 VAC. ELECTRICAL LIFE: 10,000 make and break cycles at full load. INSULATION RESISTANCE:  $10^8 \Omega$  min. DIELECTRIC STRENGTH: 1,500 VRMS @ sea level. OPERATING TEMPERATURE: -20°C to + 85°C

## Typical Applications

- Appliances, small and large
- Office equipment
- Computers and peripherals •
- Audio/Video equipment
- RoHS compliant



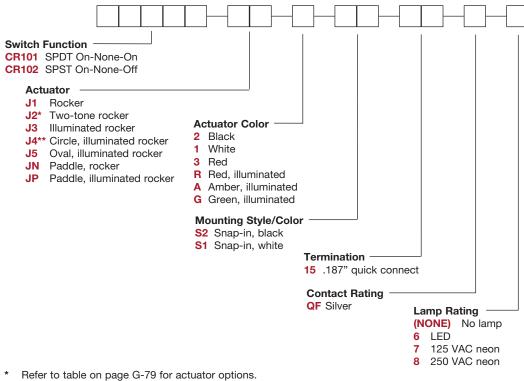
### **Materials**

HOUSING AND ACTUATOR: 6/6 nylon (UL94V-2), matte finish. ILLUMINATED ACTUATOR: Polycarbonate, matte finish. CENTER CONTACTS: Silver plated, copper alloy. END CONTACTS: Silver plated AgSn0<sub>2</sub>ln0<sub>3</sub>. ALL TERMINALS: Silver plated, copper alloy.

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

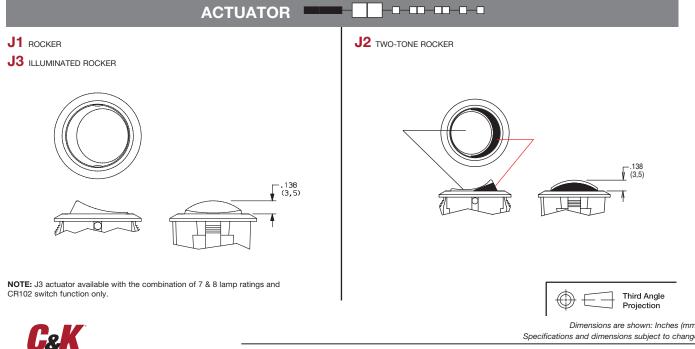
### **Build-A-Switch**

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages G-78 through G-80. For additional options not shown in catalog, consult Customer Service Center.



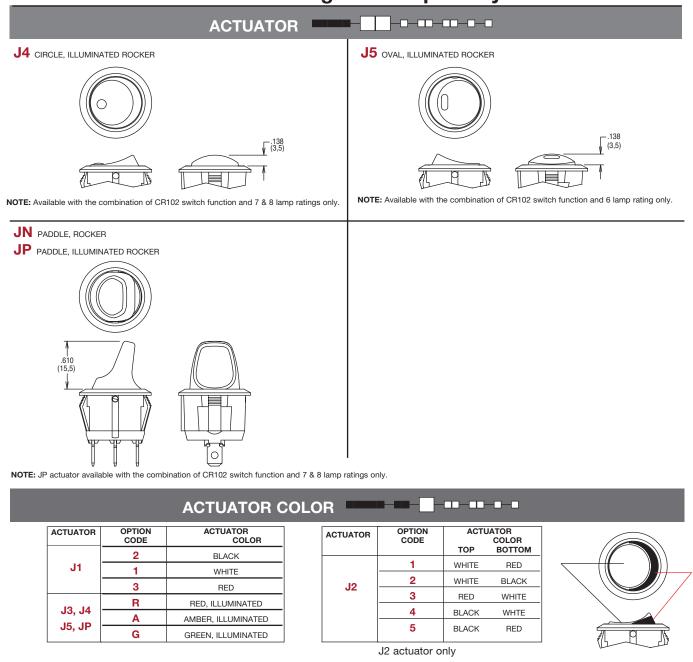


		SWITCI	H FUNCT	ION				1
		S	WITCH FUNCTIO	N	COI	NNECTED TERMIN	ALS	
		Pos. 1	Pos. 2	Pos. 3	Pos. 1	Pos. 2	Pos. 3	
NO. POLES	MODEL NO.	C&K r	narking on opposi	te side	C&K m	arking on opposite	side	SCHEMATIC
	CR101	ON	NONE	ON	2-3		2-1	1 2 3
					-	N/A		• • • • • • • • • • • • • • • • • • •
SP	CR102	ON	NONE	OFF				For 7 & 8 Illuminated Versions
			.906 DIA. (#23,0) .079- (2,0) 1 2 <sup>1</sup> 1 2 <sup>1</sup> 1 2 <sup>1</sup> 1559 (14,2)	, 0303 (0,8) (7,1)	1)	780 DIA. (\$19,8)	086 DIA.	



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

Rocker

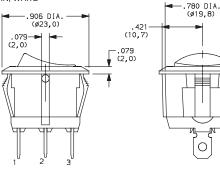


## **MOUNTING STYLE/COLOR**

Ο

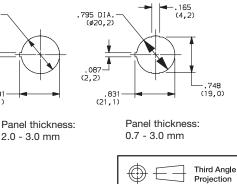






.795 DIA. (ø20,2) .087 (2,2) .831 (21,1)







Rocker

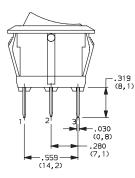
G

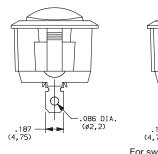
Dimensions are shown: Inches (mm)

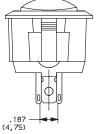
Specifications and dimensions subject to change

## TERMINATION

### 15 .187" QUICK CONNECT







For switches with LED option

-0

### CONTACT MATERIAL

OPTION CODE	CONTACT AND TERMINAL MATERIAL			
QF	SILVER	POWER	16 AMPS @ 125 VAC; 10 AMPS @ 250 VAC	c <b>RU</b> us

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

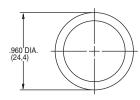
## LAMP RATING

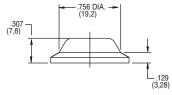
### (NONE) NO LAMP

- $6 \hspace{0.1 cm} \text{LED RATING @ 10 mA V}_{f} = 1.85 \text{V}$
- 7 125 VAC 33kΩ NEON
- 8 250 VAC 150kΩ NEON

## ACCESSORIES

### 377C00000 IP65 SPLASH PROOF RUBBER BOOT







G



### Features/Benefits

- Various designs up to 16 amps
- Heavy duty and extended life cycles
- SPST, SPDT and DPST options
- Different symbols available

### **Typical Applications**

- Household appliances
- Industrial equipment
- Audio & visual equipment
- Telecommunication
- Office equipment



#### **Specifications**

 $\label{eq:contract_restrict} \begin{array}{l} \mbox{CONTACT RATING: 6.5 Amps @ 125 VAC} \\ \mbox{ELECTRICAL LIFE: 6,000 cycles at full load.} \\ \mbox{INITIAL CONTACT RESISTANCE: 100m $\Omega$ min.} \\ \mbox{INSULATION RESISTANCE: 100M $\Omega$ min.} \\ \mbox{DIELECTRIC STRENGTH: 1,500 VAC (50-60 Hz)} \\ \mbox{OPERATING FORCE: ON_OFF: 250 $\pm$ 100 $ gf$} \\ \mbox{OFF_ON: 700 $\pm$ 250 $ gf$} \\ \mbox{PACKAGING: 300 pieces per bag (5 trays)} \\ \mbox{2,400 pieces per box} \end{array}$ 

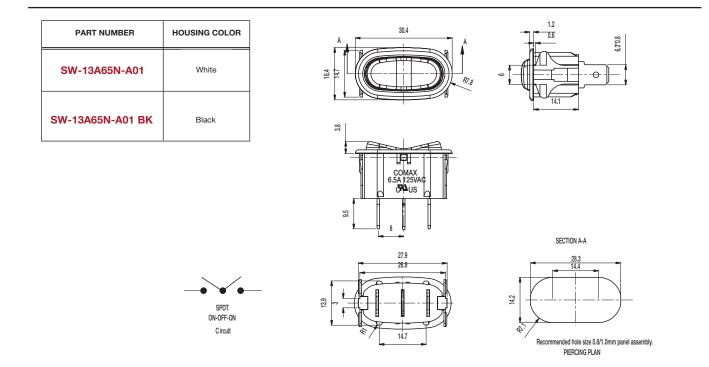
#### **Environmental**

OPERATING TEMPERATURE: 0°C to 65°C

#### Materials

HOUSING: PA (UL 94V-2). KNOB: PA (UL 94V-2). CONTACTS: Silver plated.

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







### Features/Benefits

- Bevelled frame
- Illuminated versions available
- Easy panel mount installation

## Typical Applications

- Computers and peripherals
- Small appliances
- Instrument panels
- Industrial controls
- RoHS compliant



# c Wus UL 61058-1

### Specifications

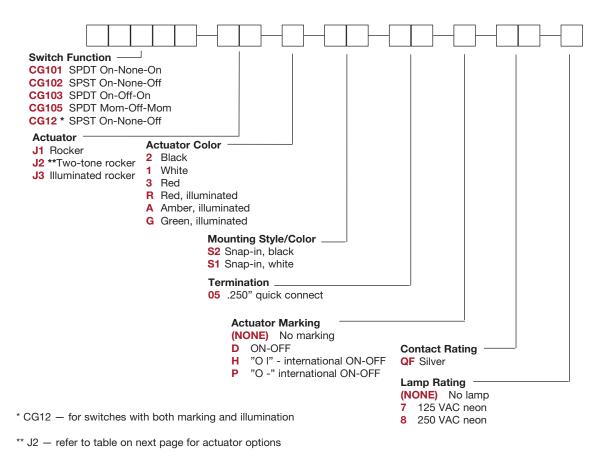
#### Materials

CONTACT RATING: 16 AMPS @ 125 VAC, 10 AMPS @ 250 VAC. 10 AMPS @ 250 VAC, 6 AMPS @ 250 VAC. ELECTRICAL LIFE: 10,000 make and break cycles at full load. INSULATION RESISTANCE:  $10^8 \Omega$  min. DIELECTRIC STRENGTH: 1,500 VRMS @ sea level. OPERATING TEMPERATURE:  $-20^{\circ}$ C to  $+85^{\circ}$ C HOUSING AND ACTUATOR: 6/6 nylon (UL94V-2), black, matte finish. ILLUMINATED ACTUATOR: Polycarbonate, matte finish. CENTER CONTACTS: Silver plated, copper alloy. END CONTACTS: Silver plated. ALL TERMINALS: Silver plated, copper alloy.

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

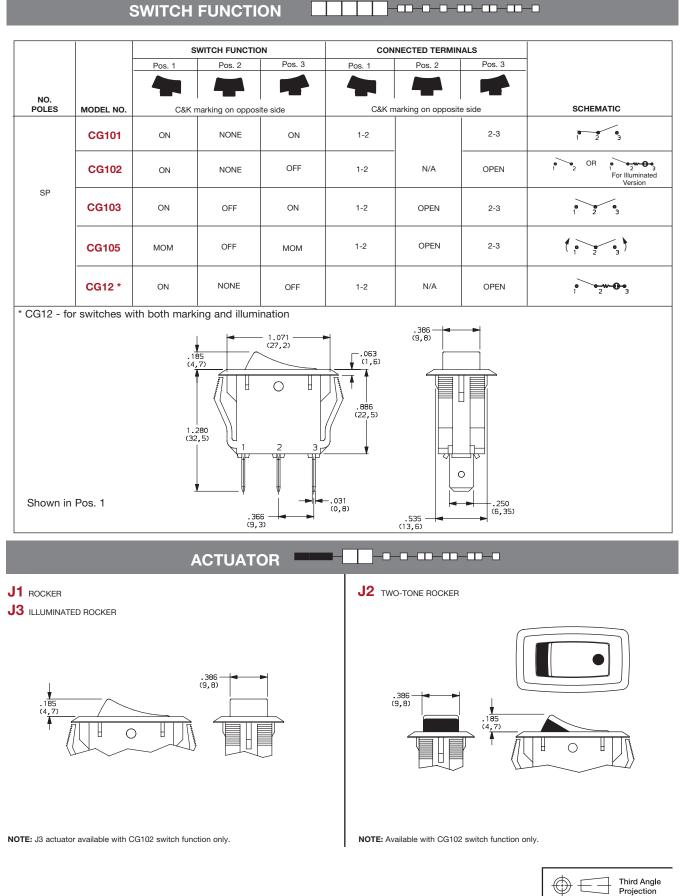
#### **Build-A-Switch**

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages G–87 through G–89. For additional options not shown in catalog, consult Customer Service Center.





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





Rocker

G

#### 

ACTUATOR	OPTION CODE	ACTUATOR COLOR
	2	BLACK
J1	1	WHITE
	3	RED
J3	R	RED, ILLUMINATED
33	Α	AMBER, ILLUMINATED
	G	GREEN, ILLUMINATED

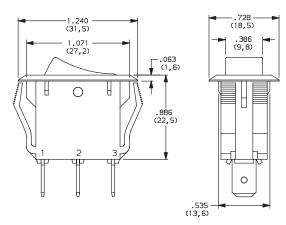
**MOUNTING STYLE/COLOR** 

OPTION CODE	ACTUATOR COLOR					
	TOP	BOTTOM				
1	WHITE	RED				
2	WHITE	BLACK				
3	RED	WHITE				
4	BLACK	WHTE				
5 BLACK RED						
J2 actuator only						

#### 

S2 SNAP-IN, BLACK

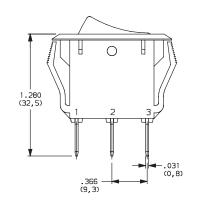
S1 SNAP-IN, WHITE



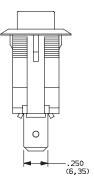
Shown in Pos. 1

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PANEL MOUNTING

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PANEL THICKNESS	"X"	"Y"
0.030-0.049 (0,75-1,25)	1.087004 (27,6-0,1)	0.543+.004 (13,8+0,1)
0.049-0.079 (1,25-2,0)	1.094004 (27,8-0,1)	0.543+.004 (13,8+0,1)
0.079-0.118 (2,0-3,0)	1.102004 (28,0-0,1)	0.543+.004 (13,8+0,1)

1-----

c **SU**s

	ACTUATOR MARKING	
NONE NO MARKING	D ON-OFF	
	ON OFF	
<b>H</b> 01	<b>P</b> o-	
- 0		NOTE: Orientation of actuator marking and terminals Shown in Pos. 1

# CONTACT MATERIAL

OPTION CODE	CONTACT AND TERMINAL MATERIAL	RATINGS	
QF	SILVER	POWER	16 AMPS @ 125 VAC; 10 AMPS @ 250 VAC 10 AMPS @ 250 VAC

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

# LAMP RATING

(NONE) NO LAMP

7 125 VAC 33kΩ NEON

8 250 VAC 150kΩ NEON

NOTE: Lamp rating for J3 actuator option.





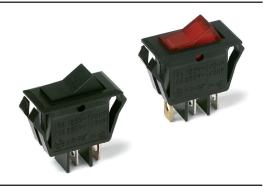
Third Angle Projection

### Features/Benefits

- Illuminated versions available
- Positive detent
- Snap-in mounting

## **Typical Applications**

- Floor care products
- Power outlet strips
- HVAC units
- RoHS compliant





### Specifications

CONTACT RATING: 16 AMPS @ 125 VAC, 1/3 HP; 10 AMPS @ 250 VAC, 1/2 HP. ELECTRICAL LIFE: 10,000 make and break cycles at full load. INSULATION RESISTANCE:  $10^8 \Omega$  min. DIELECTRIC STRENGTH: 1,500 VRMS @ sea level. OPERATING TEMPERATURE: -20°C to +80°C

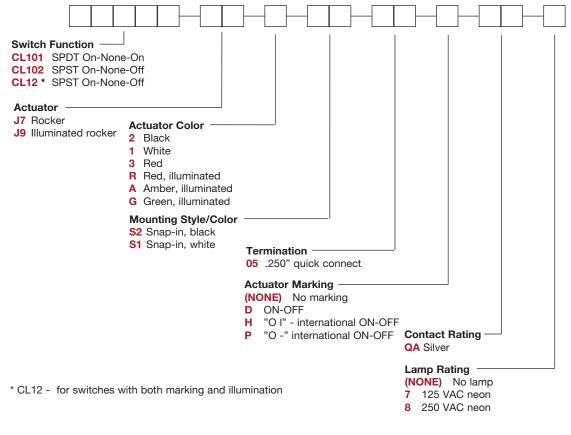
### Materials

HOUSING AND ACTUATOR: 6/6 nylon (UL94V-2), black, matte finish. ILLUMINATED ACTUATOR: Polycarbonate, matte finish. CENTER CONTACTS: Silver plated, copper alloy. END CONTACTS: Silver plated. ALL TERMINALS: Silver plated, copper alloy.

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

### **Build-A-Switch**

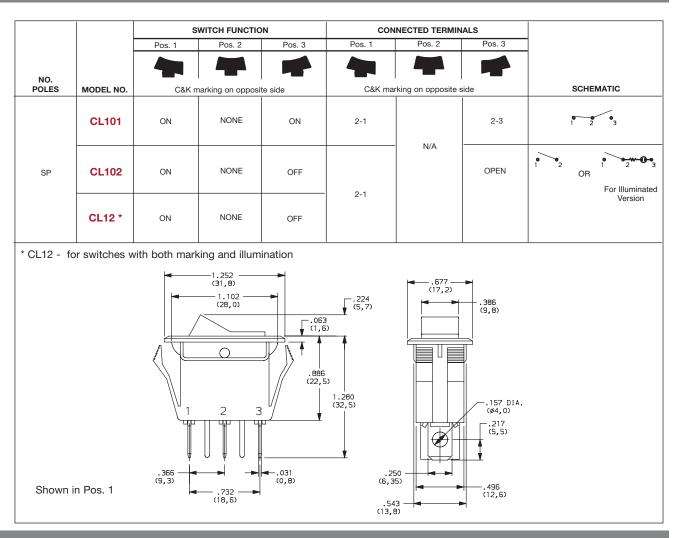
To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages G–91 through G–93. For additional options not shown in catalog, consult Customer Service Center.





Rocker

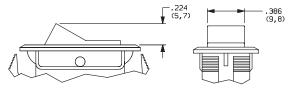
## SWITCH FUNCTION



#### 

J7 ROCKER

J9 ILLUMINATED ROCKER



NOTE: J9 actuator available with CL102 & CL12 switch function only.

### **ACTUATOR COLOR**

#### 

OPTION CODE	ACTUATOR COLOR
CODE	COLOR
2	BLACK
1	WHITE
3	RED
R	RED, ILLUMINATED
Α	AMBER, ILLUMINATED
G	GREEN, ILLUMINATED



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



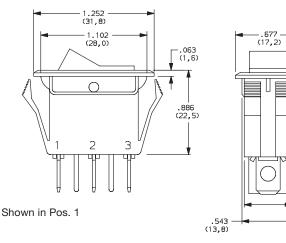


C&K

## **MOUNTING STYLE/COLOR**

#### S2 SNAP-IN, BLACK

S1 SNAP-IN, WHITE





PANEL MOUNTING

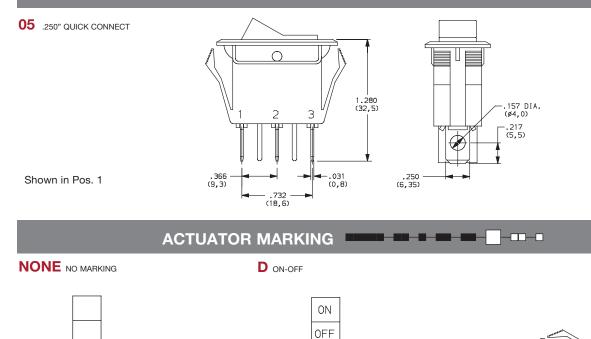
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PANEL THICKNESS	"X"	"Y"
0.030-0.049 (0,75-1,25)	1.126004 (28,6-0,1)	0.551+.004 (14,0+0,1)
0.049-0.079 (1,25-2,0)	1.134004 (28,8-0,1)	0.551+.004 (14,0+0,1)
0.079-0.118 (2,0-3,0)	1.150004 (29,2-0,1)	0.551+.004 (14,0+0,1)

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#### **TERMINATION**

-.496 (12,6)



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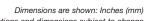
NOTE: Orientation of actuator marking and terminals.

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Shown in Pos. 1





Specifications and dimensions subject to change

Rocker



OPTION CODE	CONTACT AND TERMINAL MATERIAL		RATINGS
QA	SILVER	POWER	16 AMPS @ 125 VAC; 1/3 HP; 10 AMPS @ 250 VAC, 1/2 HP

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



### (NONE) NO LAMP

- 7 125 VAC 33kΩ NEON
- 8 250 VAC 150kΩ NEON

NOTE: Lamp rating for J9 actuator option.





### Features/Benefits

- Illuminated versions available
- Easy to install snap-in design
- Multiple actuator and termination styles to choose from

## Typical Applications

- Computers and peripherals
- Power supplies
- Industrial equipment
- Small appliances
- RoHS compliant



# c**FL**us

### Specifications

CONTACT RATING: 16 AMPS @ 125 VAC, 1/8 HP; 10 AMPS @ 250 VAC, 1/3 HP. ELECTRICAL LIFE: 10,000 make and break cycles at full load. INSULATION RESISTANCE:  $10^8 \Omega$  min. DIELECTRIC STRENGTH: 1,500 VRMS @ sea level. OPERATING TEMPERATURE: -20°C to +80°C

### Materials

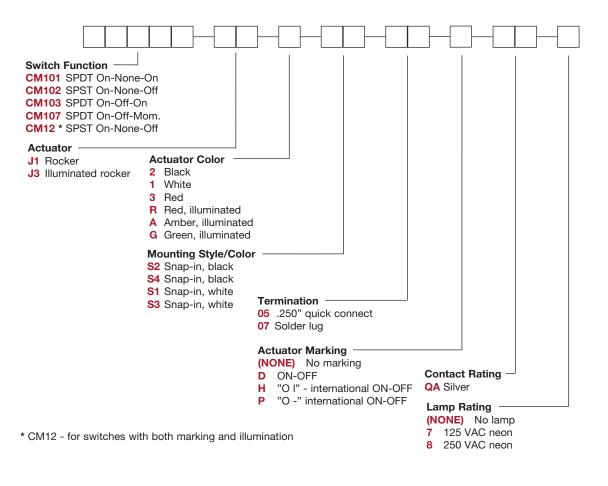
HOUSING AND ACTUATOR: 6/6 nylon (UL94V-2), black, gloss or matte finish.

ILLUMINATED ACTUATOR: Polycarbonate, gloss or matte finish. CENTER CONTACTS: Silver plated, copper alloy. END CONTACTS: Silver plated. ALL TERMINALS: Silver plated, copper alloy.

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

### **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–95 through G–97. For additional options not shown in catalog, consult Customer Service Center.





Rocker

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		S	WITCH FUNCTIO	N	CON	NECTED TERMIN	ALS	
		Pos. 1	Pos. 2	Pos. 3	Pos. 1	Pos. 2	Pos. 3	-
NO. POLES	MODEL NO.	C&K r	narking on opposi	ite side	C&K ma	rking on opposite	side	SCHEMATIC
	CM101	ON	NONE	ON		N/A	2-3	<b>e</b> 1 2 3
	CM102	ON	NONE	OFF		N/A	OPEN	OR For Illuminated Version
SP	CM103	ON	OFF	ON	2-1			• • • • • • • • • • • • • • • • • • •
	CM107	ON	OFF	MOM.		OPEN	2-3	• • • • • • • • • • • • • • • • • • •
	CM12 *	ON	NONE	OFF		N/A	OPEN	
* CM12 - for switches with both marking and illumination								
Shown in Pos. 1 $(10, 9)$ $(10, 9)$ $(10, 9)$ $(10, 7)$ $(27, 2)$ $(10, 9)$ $(10, 7)$ $(10, 7)$ $(10, 7)$ $(10, 7)$ $(10, 7)$ $(10, 7)$ $(10, 7)$								

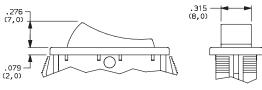
#### SWITCH FUNCTION

ACTUATOR 

J1 ROCKER

G&K

**J3** ILLUMINATED ROCKER



NOTE: J3 actuator available with CM102 & CM12 switch function only.



16 May 18



 $\bigcirc$ Projection Dimensions are shown: Inches (mm)

Specifications and dimensions subject to change

Third Angle

#### ACTUATOR COLOR

OPTION CODE	ACTUATOR COLOR	
2	BLACK	
1	WHITE	
3	RED	
R	RED, ILLUMINATED	
Α	AMBER, ILLUMINATED	
G	GREEN, ILLUMINATED	

### **MOUNTING STYLE/COLOR**

-.551-(14,0)

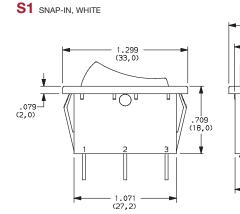
►.433 -(11,0)

Ο

-.421 (10,7)

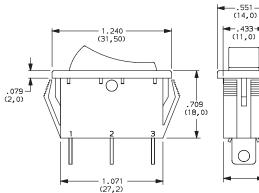
### ------

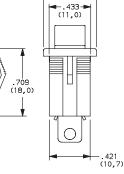
### S2 SNAP-IN, BLACK



S4 SNAP-IN, BLACK (SHORT FRAME)

S3 SNAP-IN, WHITE





Shown in Pos. 1

Pos. 1



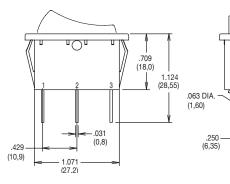
PANEL MOUNTING

PANEL THICKNESS	"X"	"Y"
0.030-0.049 (0,75-1,25)	1.189004 (30,2-0,1)	0.441+.004 (11,2+0,1)
0.049-0.079 (1,25-2,0)	1.197004 (30,4-0,1)	0.441+.004 (11,2+0,1)
0.079-0.118 (2,0-3,0)	1.212004 (30,8-0,1)	0.441+.004 (11,2+0,1)

₹\_.185 (4,7)

#### **TERMINATION** -----

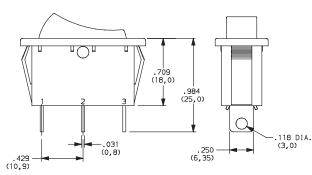
#### 05 .250 QUICK CONNECT



Shown in Pos. 1



07 SOLDER LUG



NOTE: Available with CM101 & CM102 switch functions only.

Third Angle Projection

Specifications and dimensions subject to change

G

Rocker

Dimensions are shown: Inches (mm)

	ACTUATOR MARKING	
NONE NO MARKING	D ON-OFF	
	ON OFF	
Ног	<b>P</b> o-	
- 0		NOTE: Orientation of actuator marking and terminals. Shown in Pos. 1

## CONTACT MATERIAL

OPTION CODE	CONTACT AND TERMINAL MATERIAL		RATINGS
QA	SILVER	POWER	16 AMPS @ 125 VAC; 1/8 HP 10 AMPS @ 250 VAC, 1/3 HP

c SU'us

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

## LAMP RATING

### (NONE) NO LAMP

- 7 125 VAC 33kΩ NEON
- 8 250 VAC 150kΩ NEON

NOTE: Lamp rating for J3 & J8 actuator option.



<u>C&K</u>

16 May 18



### Features/Benefits

- Illuminated versions available
- Multiple actuator and termination styles
- Robust design
- Custom version upon request
- RoHS compliant

## Typical Applications

- Appliances
- Office equipment
- Computers and peripherals
- Off-road vehicles
- Industrial machines
- HVAC units
- Transportation



# c **AU**us

### Specifications

CONTACT RATING:

See table for Q and QA ratings on the last page of this series. ELECTRICAL LIFE: 10,000 make and break cycles at full load. INSULATION RESISTANCE:  $10^8 \Omega$  min. DIELECTRIC STRENGTH: 1,500 VRMS @ sea level. OPERATING TEMPERATURE: -20°C to +85°C

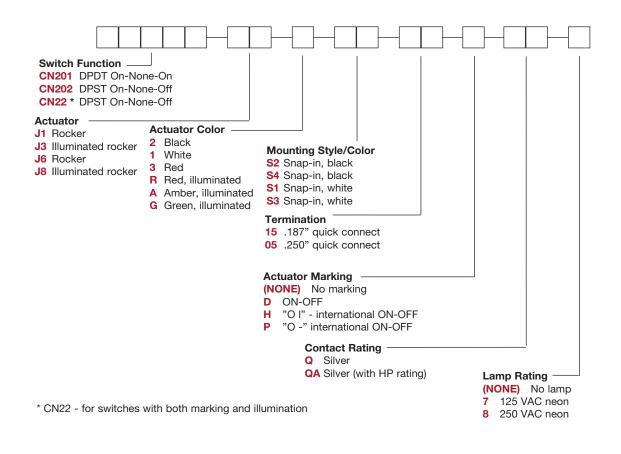
HOUSING AND ACTUATOR: 6/6 nylon (UL94V-2), black, matte finish. ILLUMINATED ACTUATOR: Polycarbonate, matte finish. CENTER CONTACTS: Silver plated, copper alloy. END CONTACTS: Silver plated AgSu0<sub>2</sub>In0<sub>3</sub>. ALL TERMINALS: Silver plated, copper alloy.

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

### Materials

### **Build-A-Switch**

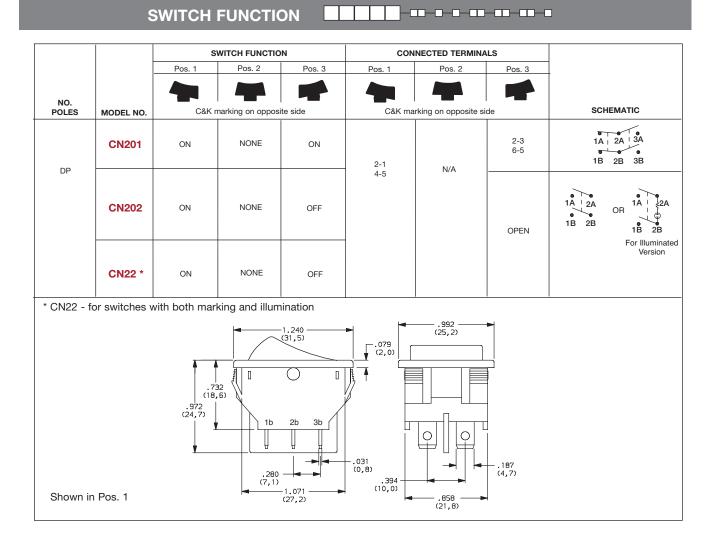
To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages G–99 through G–101. For additional options not shown in catalog, consult Customer Service Center.

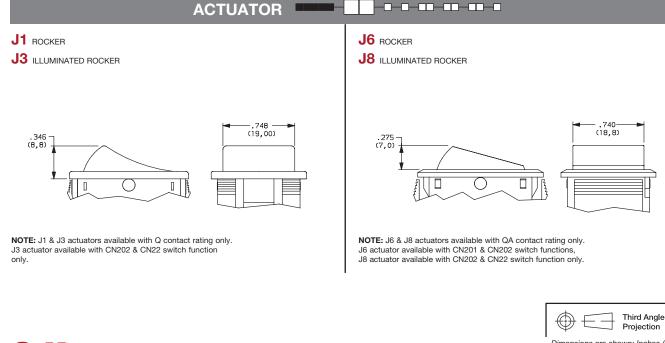




Rocker

YYY





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

**Rocker** 

ACTUATOR COLOR	
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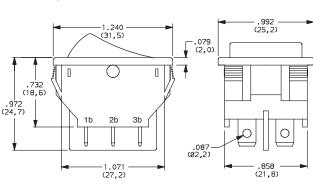
OPTION CODE	ACTUATOR COLOR		
2	BLACK		
1	WHITE		
3	RED		
R	RED, ILLUMINATED		
Α	AMBER, ILLUMINATED		
G	GREEN, ILLUMINATED		

## **MOUNTING STYLE/COLOR**

#### S4 SNAP-IN, BLACK

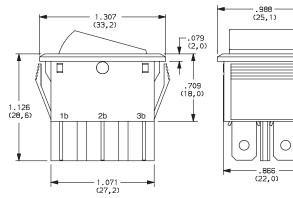
S3 SNAP-IN, WHITE





NOTE: Available with 15 termination and Q contact rating only.

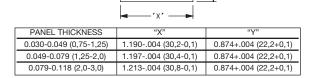
Shown in Pos. 1



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NOTE: Available with 05 termination and QA contact rating only.

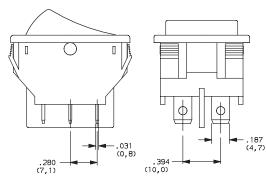
Shown in Pos. 1



PANEL MOUNTING

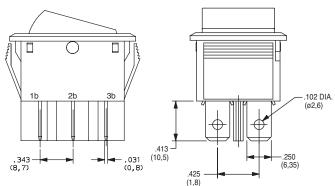
#### **TERMINATION**

#### 15 .187" QUICK CONNECT



NOTE: Available with S1 & S2 mounting style and Q contact rating only. Shown in Pos. 1

#### 05 .250" QUICK CONNECT



NOTE: Available with S3 & S4 mounting styles and QA contact rating, CN201 & CN202 switch functions only.

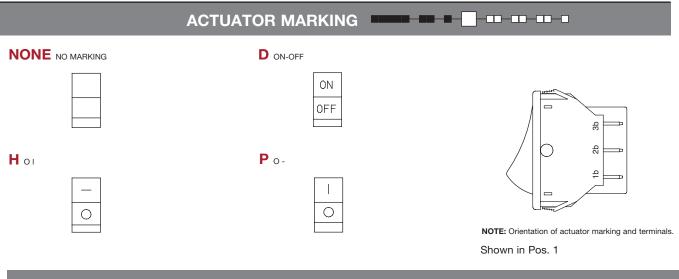
Shown in Pos. 1



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







## CONTACT MATERIAL

OPTION CODE	CONTACT AND TERMINAL MATERIAL	RATINGS	
Q	SILVER POWER	16A @ 125C 1/3 HP @ 125 V AC 10A @ 250 V AC 1/2HP @ 250 V AC	
QA		POWER	16A @ 125 VAC, 1/8 HP @ 125 V AC; 10 A @ 250 VAC, 1/3 HP @ 250 V AC

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

LAMP RATING

(NONE) NO LAMP

7 125 VAC 33kΩ NEON

8 250 VAC 150kΩ NEON

G

NOTE: Lamp rating for J3 & J8 actuator options.



