Rockers Product Selection Guide

Rocker				2			
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						•	
Panel Mount Options							
Front Mount	•	•		•	•	Snap-in	Snap-in
Rear Mount	•	•		•	•		
PCB Mount Options							
Vertical	•	•	•	•	•	•	•
Right Angle	•	•	•	•	•	•	•
Surface Mount			•				
Page No.	G-3	G-25	G-39	G-45	G-51	G-56	G-60

Rocker			00		
Series	DM	DM	DF	CR	SW
Switch Type	Miniature 2 Pole Power	Miniature Illuminated Power	Power	Round	Miniature Power
Poles/Throws	DPST, DPDT	SPST, DPST	SPST, SPDT, DPST	SPST, SPDT	SPST, SPDT, DPST
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
Washable					
Illuminated		•		•	•
Panel Mount Options					
Front Mount	Snap-in	Snap-in	Snap-in	Snap-in	Snap-in
Rear Mount			•		
PCB Mount Options					
Vertical					
Right Angle			•		
Surface Mount					
Page No.	G-65	G-69	G-73	G-77	G-81





Features/Benefits

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

Typical Applications

- **Telecommunications**
- Instrumentation
- Medical equipment





Specifications

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

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.

Switch Function Contact Material 7101 SP On-None-On Actuator Gold 7103 SP On-Off-On .531 long rocker J1 Gold, matte tin 7105 SP Mom.-Off-Mom. Terminations J2 Lever Q Silver Right angle, PC thru-hole **7107** SP On-Off-Mom. .906" long rocker AV2 Vertical right angle, PC thru-hole Silver, matte-tin 7108 SP On-None-Mom. J10 1.318" long rocker Gold over silver 7109 SP None-On-Mom. PC Thru-hole C J11 Rocker with frame Gold over silver, matte-tin Z Solder lug **7201** DP On-None-On J15 Rocker, snap-in **7203** DP On-Off-On **A3** Right angle, snap-in, PC thru-hole J16 Rocker with frame, snap-in Vertical right angle, 7205 DP Mom.-Off-Mom. J19 Rocker with frame Seal **7207** DP On-Off-Mom. snap-in, PC thru-hole J21 Lever with frame E Epoxy AW3 Right angle, extended, PC thru-hole 7208 DP On-None-Mom. I Epoxy potted base J25 Lever, snap-in .555" high, V-bracket **V2 7211** DP On-On-On J26 Lever with frame, snap-in .460" high, V-bracket **7213** DP On-On-Mom. **V3** J37 Rocker with frame **V**4 .630" high, V-bracket **7215** DP Mom.-On-Mom. **Actuator Color** J50 Rocker **7301** 3P On-None-On **V**5 Vertical right angle, PC thru-hole Frame Color 2 Black J51 Rocker with frame .460" high, V-bracket **V**6 **7303** 3P On-Off-On White 2 Black J52 Rocker with frame for 7401 4P On-None-On **V7** .630" high, V-bracket NONE No frame color required 3 Red LED, snap-in .953" high, V-bracket **V**8 7405 4P Mom -Off-Mom White V9 1.150" high, V-bracket 7411 4P On-On-On **Metal Frame Color** J61 Lever with frame, snap-in V31 .460" high, V-bracket, snap-in Note: UL models (J11, J19, J21 & J62 Lever with frame for available, see pages G-5 and G-6. Vertical right angle, snap-in **V51**

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

J37 Actuators)

Black 2

1 White

www.ckswitches.com

LED, snap-in

J91 Lever with frame, snap-in

J90 Lever

Rocker

.750" long, wire wrap

.425" long, wire wrap W5 1.305" long, wire wrap Z3 Quick connect

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

V61

w

W3

Rocker

7000 Series Miniature Rocker & Lever Handle Switches

SWITCH FUNCTION SWITCH FUNCTION CONNECTED TERMINALS POS. 1 POS. 2 POS. 3 POS. 1 POS. 2 UL** MODEL NO. POLES MODEL NO C&K marking on opposite side C&K marking on opposite side **SCHEMATIC** 7101 U11 ON 7103 **U13** ON OFF ON 2 (COMM) 7105 U15 MOM OFF MOM. 2-3 OPEN 2-1 SP 7107 **U17** ON OFF MOM. **U**18 7108 ON NONE MOM. N/A 7109 **U**19 SPDT 2-3 NONE ON MOM. 2-1 **SPDT** 275 .080 TYP. (2,03) TERM. WIDTH .030 TYP. (0,76) 25° P05 3 🌶 .500 (12,70) 7 | 2 1.156 (29,36) .185 TYP. (4,70) P05 2 €⊕ P05 1 EPOXY SEAL .370 (9,40) .094 DIA. (2.390) TYP. .138 (3,51) CASE WIDTH Terminal Nos. Part number shown: 7101J1ZQE2 7201 **U21** ON NONE ON 7203 **U23** ON OFF ON 7205 **U25** MOM OFF MOM. OPEN 7207 **U27** OFF MOM. 2-3,5-6 2-1,5-4 ●2 (COMM) 5 ● DP 7208 **U28** ON NONE MOM. N/A 7211* U211* ON ON ON 7213* U213* ON 2-3,5-4 7215* U215* MOM. ON MOM. DPDT DPDT . 275 (6,99) · .040 (1,02) C&K MARKING ON OPPOSITE SIDE 25° P05 3 🌶 .185 TYP. (4,70) POS 2 .937 (23,80) ¶ P05 1 EPOXY SEAL - .155 TYP. (3,94) .080 TYP. (2,03) TERM. WIDTH .094 DIA. (2,390) TYP. Terminal Nos For Reference Only Part number shown: 7201J1ZQE2

G-4

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

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





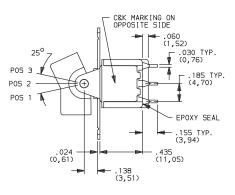


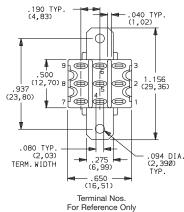
Dimensions are shown: Inches (mm) Specifications and dimensions subject to change

SWITCH FUNCTION ____

			SWITCH FUNCTION		CONNECTED TERMINALS				
			POS. 1	POS. 2	POS. 3	POS. 1	POS. 2	POS. 3	
NO. POLES	MODEL NO.	UL** MODEL		4	4			4	
		NO. C&K marking on oppos		osite side	C&K marking on opposite side			SCHEMATIC	
3P	7301	U31	ON	NONE	ON	2-3,5-6,8-9	N/A	2-1,5-4,8-7	2 5 (COMM) 8 7 9
	7303	U33	ON	OFF	ON	2-3,3-0,6-9	OPEN	2-1,5-4,6-7	ЗРДТ

3PDT

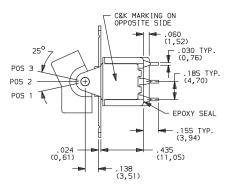


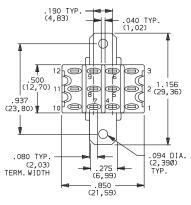


Part number shown: 7301J1ZQE2

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

4PDT





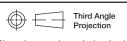
Part number shown: 7401J1ZQE2

Terminal Nos. For Reference Only

MOM. = Momentary

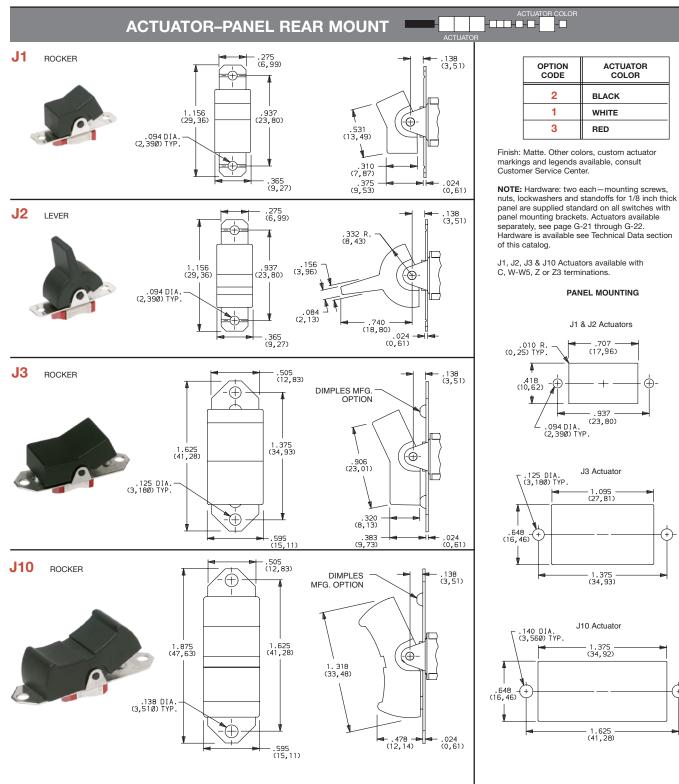
** U11 through U411 model nos. c Wus with all options when ordered with G, Q, R or S contact material.

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



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





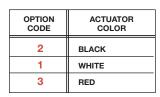




Third Angle Projection

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

ACTUATOR-SNAP-IN FRONT MOUNT



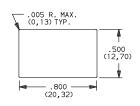
OPTION CODE	FRAME COLOR
2	BLACK
NONE	No Frame Color (J15 or J25options)
1	WHITE

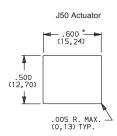
Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

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

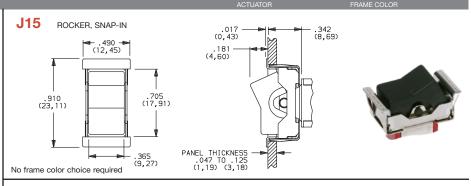
PANEL MOUNTING

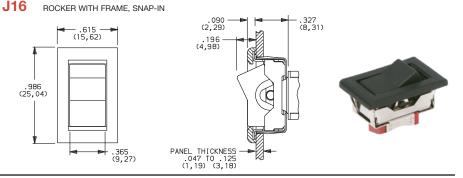
J15, J16, J25 & J26 Actuators

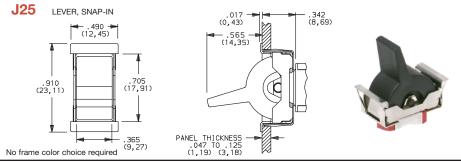


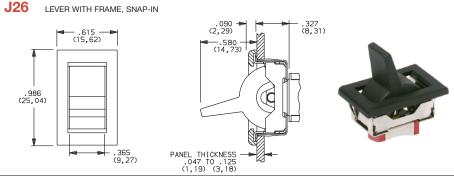


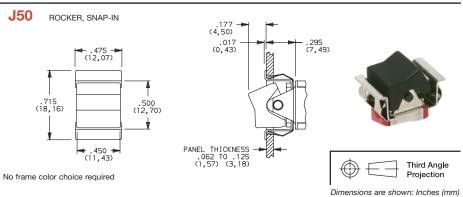
* For J50: Increase this dimension to .620/.625 (15,75/15,88) for .091/.125 (2,31/3,18) thk. panels.











Specifications and dimensions subject to change



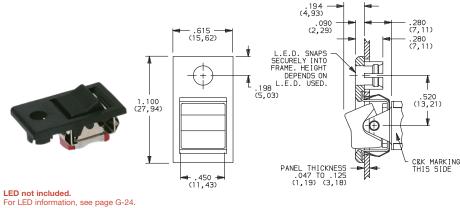
www.ckswitches.com

ACTUATOR-SNAP-IN FRONT MOUNT ROCKER WITH FRAME, SNAP-IN .194 (4,93) .090 (2,29) - .615 -(15,62) .280 (7,11) .765

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

ACTUATOR COLOR OPTION CODE 2 BLACK WHITE 3 RED

J52 ROCKER WITH FRAME FOR LED, SNAP-IN



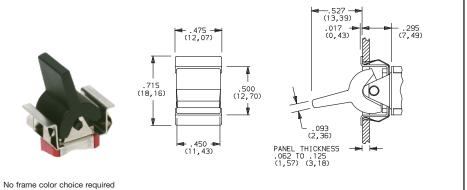
OPTION CODE FRAME COLOR 2 **BLACK** No Frame Color NONE (J15 or J25 options) 1 WHITE

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

NOTE: Actuators & frames available separately, see pages G-21 through G-22. J51, J52, J60 & J61
Actuators available with 71XX, 72XX, U1XX & U2XX
models and C, W-W5, Z and Z3 terminations.

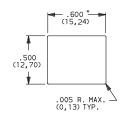
J60 LEVER, SNAP-IN

J51

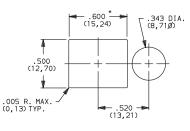


PANEL MOUNTING

J51, J60 & J61 Actuators



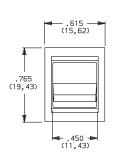
J52 Actuator

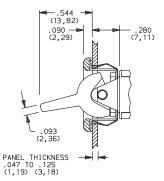


For J51, J52: Increase this dimension to .620/.625 (15,75/15,88) for .060/.125(1,52/3,18) thk. panels.

LEVER WITH FRAME, SNAP-IN











Dimensions are shown: Inches (mm)

Third Anale

Specifications and dimensions subject to change

ACTUATOR-SNAP-IN FRONT MOUNT



OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE
3	RED

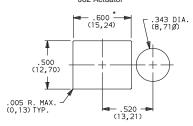
OPTION CODE	FRAME COLOR
2	BLACK
NONE	No Frame Color (J90 options)
1	WHITE

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

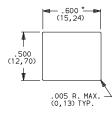
NOTE: Actuators & frames available separately, see pages G-21 through G-22. J62, J90 & J91
Actuators available with 71XX, 72XX, U1XX &
U2XX models and C, W-W5, Z & Z3 terminations.

PANEL MOUNTING

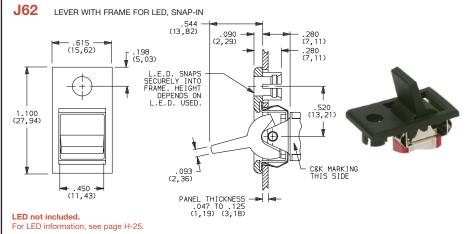
J62 Actuator



J90, J91 & J93 Actuators

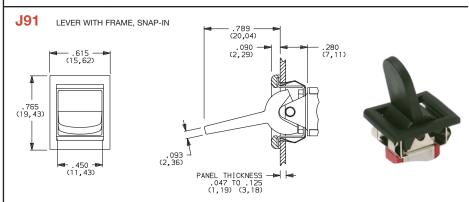


 * For J90: Increase this dimension to .620/.625 (15,75/15,88) for .091/.125 (2,31/3,18) thk. panels. For J91: Increase this dimension to .620/.625 (15,75/15,88) for .060/.125 (1,52/3,18) thk. panels.



LEVER, SNAP-IN - .772 -(19**,**61) .017 .295 (7,49) - .475 -(12,07) .715 (18,16) .093 PANEL THICKNESS .062 TO .125 (1,57) (3,18)

No frame color choice required.

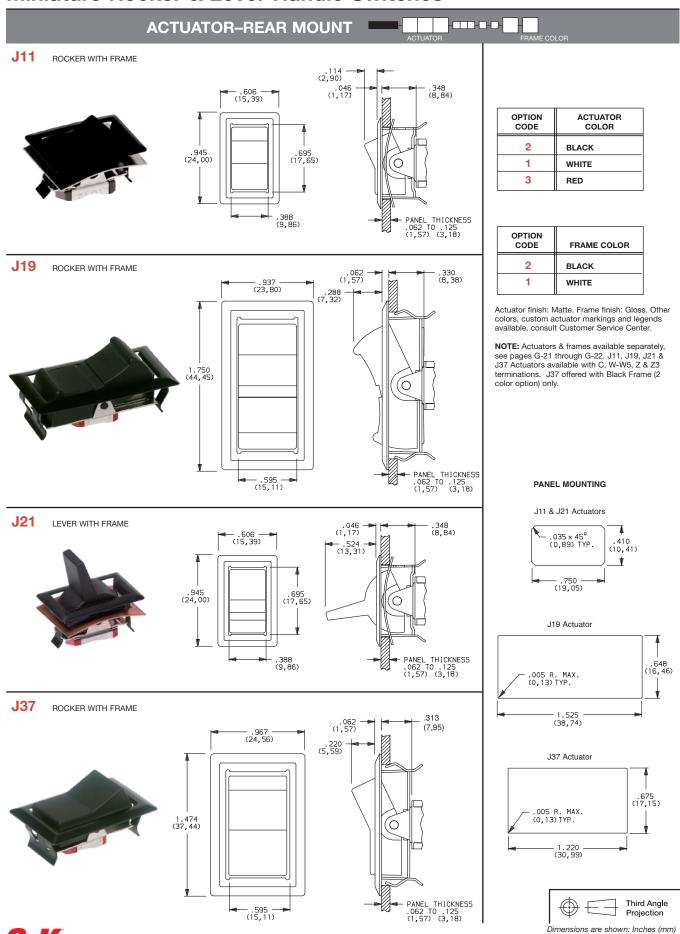




Third Angle

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





Rocker

C&K

27 mar 17

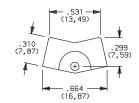
Specifications and dimensions subject to change

ACTUATOR-PC MOUNT

ROCKER



J1







OPTION CODE COLOR

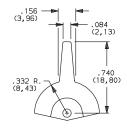
2 BLACK
1 WHITE
3 RED

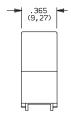
Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

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

Actuators available separately, see page G-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.

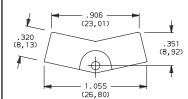
J2 LEVER







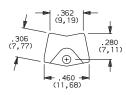
J3 ROCKER







J50 ROCKER











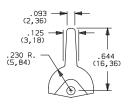


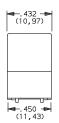
ACTUATOR-PC MOUNT



J60 LEVER







OPTION CODE ACTUATOR COLOR 2 **BLACK** 1 WHITE 3 RED

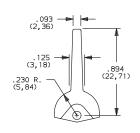
Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

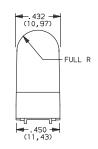
NOTE: Some permissible actuator/termination combinations may lack clearance between actuator and PC board, and care must be exercised to accommodate this condition.

Actuators available separately, see page G-21 through G-22. J60 & J90 actuators available with A (DP, 3P models only), A3 (DP, 3P models only), AV2, AV3, AW3 (DP, 3P models only)

J90 LEVER



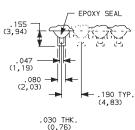


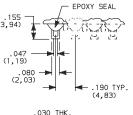


TERMINATIONS



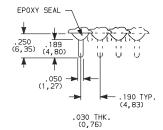
SOLDER LUG





SPDT thru 4PDT

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



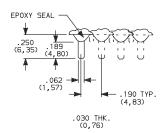
.073 DIA. (1,850) TYP. - 🕁 - - 🕁 - - 🕁 -.190 TYP.

PC MOUNTING

SPDT thru 4PDT

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

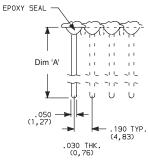
Z3 QUICK CONNECT



SPDT thru 4PDT

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

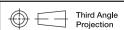
W, W3, W5 WIRE WRAP



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

SPDT thru 4PDT

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



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

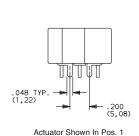


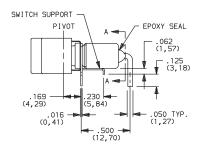
Rocker

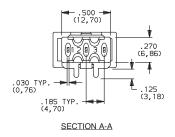
www.ckswitches.com

TERMINATIONS

RIGHT ANGLE, PC THRU-HOLE



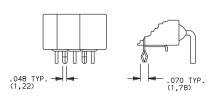




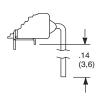


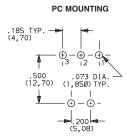
7101J1ABE2 Horizontal Actuation **SPDT**

RIGHT ANGLE, SNAP-IN, PC THRU-HOLE



AW3 RIGHT ANGLE, EXTENDED, PC THRU-HOLE

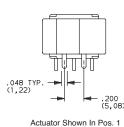




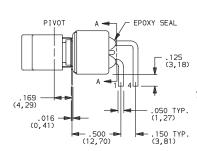
Not available with I seal option. Available actuators, see pages G-6 and G-12. Terminal bend radii and lead-in manufacturing option.

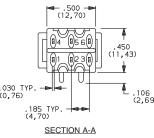
NOTE: PC pattern must clear switch support leg.

RIGHT ANGLE, PC THRU-HOLE





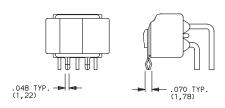






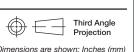
7201J1ABE2 Horizontal Actuation **DPDT**

RIGHT ANGLE, SNAP-IN, PC THRU-HOLE



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

PC MOUNTING .185 TYP. (4,70) .500 (12,70)



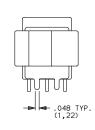
Dimensions are shown: Inches (mm) Specifications and dimensions subject to change

TERMINATIONS

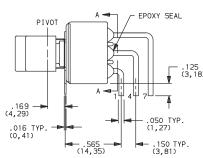
RIGHT ANGLE, PC THRU-HOLE

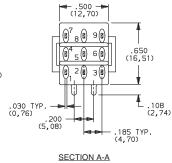


7301J1ABE2 Horizontal Actuation 3PDT

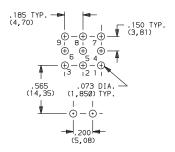


Actuator Shown In Pos. 1





PC MOUNTING



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

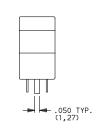
AV2

VERTICAL RIGHT ANGLE, PC THRU-HOLE,

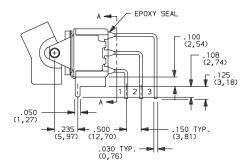


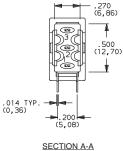
7101J1AV2BE2 Vertical Actuation

SPDT



Actuator Shown In Pos. 1

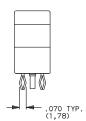


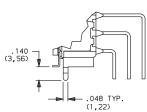


AV3

Rocker

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

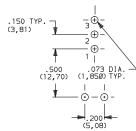




G-14

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

PC MOUNTING





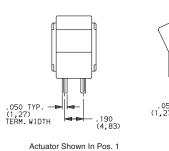
Dimensions are shown: Inches (mm)

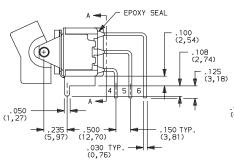


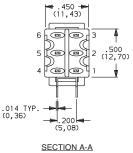
Specifications and dimensions subject to change



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



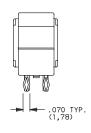


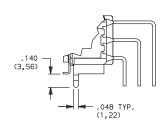




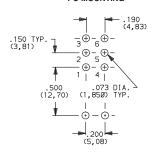
7201J1AV2BE2 Vertical Actuation **DPDT**

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



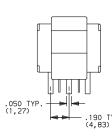


PC MOUNTING

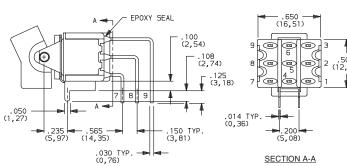


Not available with I seal option. Available actuators, see pages G-6 and G-12. Terminal bend radii and lead-in manufacturing option.

AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE,



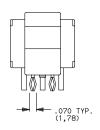


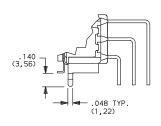




7301J1AV2BE2 Vertical Actuation **3PDT**

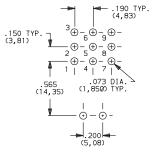
AV3 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150" PITCH





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

PC MOUNTING

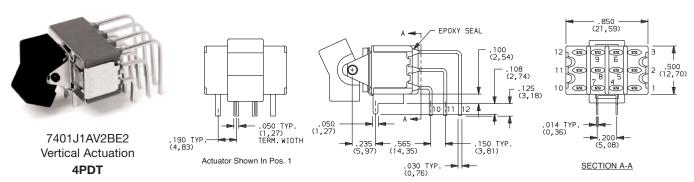




Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change

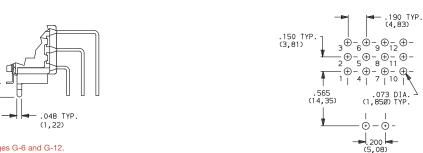
TERMINATIONS

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



AV3

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

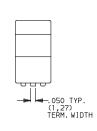


Not available with I seal option. Available actuators, see pages G-6 and G-12. Terminal bend radii and lead-in manufacturing option.

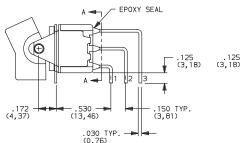
VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH

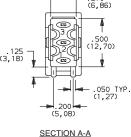


7101J1V5BE2 Vertical Actuation **SPDT**



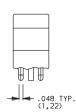
Actuator Shown In Pos. 1

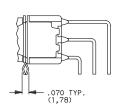




PC MOUNTING

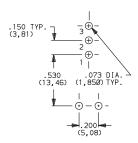
VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150" PITCH





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

PC MOUNTING



Third Angle

Dimensions are shown: Inches (mm)



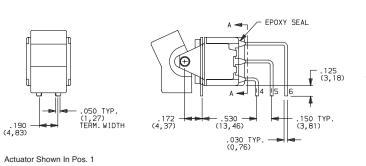
Rocker



Specifications and dimensions subject to change

TERMINATIONS -

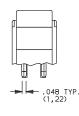
VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH

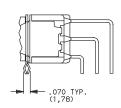


4.450 **→** (11**,**43) @\@\d 2 .500 (12,70) 5 🕲 .050 TYP.

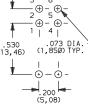
7201J1V5BE2 SECTION A-A Vertical Actuation **DPDT**

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





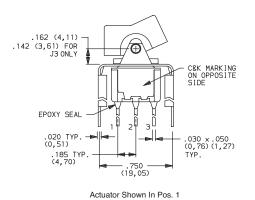
PC MOUNTING



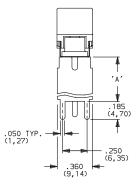
Not available with I seal option. Available actuators, see pages G-6 and G-12. Terminal bend radii and lead-in manufacturing option.

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

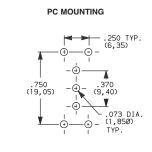
V61 VERTICAL MOUNT, V-BRACKET, SNAP-IN







G-17

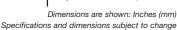




7101J1__BE2 SPDT

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

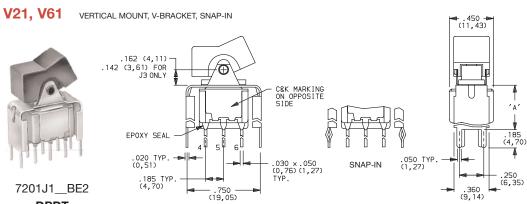
Third Angle Projection

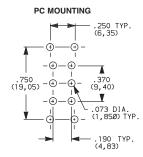


Actuator Shown In Pos. 1









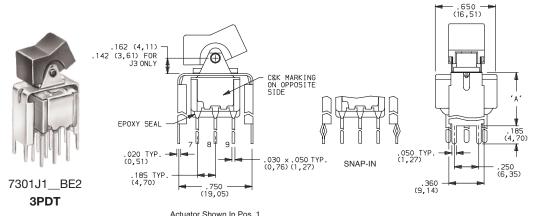
CODE DIM 'A' V2, V21 .555 (14,10) V6, V61 .460 (11,68) **V7** .630 (16,00) .953 (24,21)

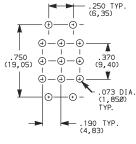
Not available with I seal option. Available actuators, see pages G-6 and G-12.

DPDT

V2, V7, V8 VERTICAL MOUNT, V-BRACKET







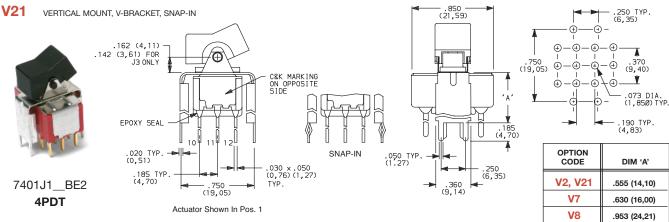
PC MOUNTING

OPTION CODE	DIM 'A'
V2, V21	.555 (14,10)
V 7	.630 (16,00)
V 8	.953 (24,21)

PC MOUNTING

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

V2, V7, V8 VERTICAL MOUNT, V-BRACKET



Rocker

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



Dimensions are shown: Inches (mm)

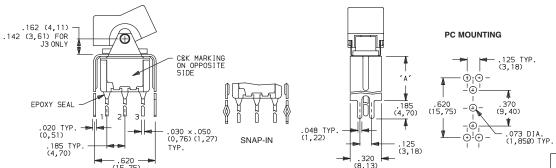


Specifications and dimensions subject to change

TERMINATIONS ----

V3, V4, V9 VERTICAL MOUNT, V-BRACKET

V31 VERTICAL MOUNT, V-BRACKET, SNAP-IN



Actuator Shown In Pos. 1

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

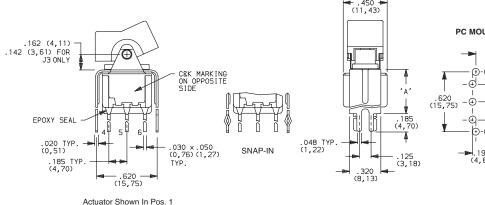


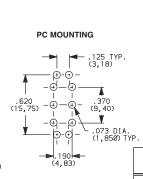
7101J1_BE2 **SPDT**

OPTION CODE	DIM 'A'
V3, V31	.460 (11,68)
V4	.630 (16,00)
V 9	1.150 (29,21)

V3, V4, V9 VERTICAL MOUNT, V-BRACKET

V31 VERTICAL MOUNT, V-BRACKET, SNAP-IN







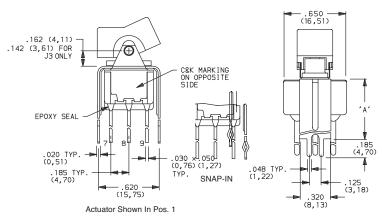
7201J1_BE2 **DPDT**

OPTION CODE	DIM 'A'
V3, V31	.460 (11,68)
V 4	.630 (16,00)
V 9	1.150 (29,21)

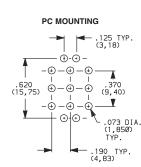
V4, V9 VERTICAL MOUNT, V-BRACKET

Not available with I seal option.

Available actuators, see pages G-6 and G-12.



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





7301J1__BE2 **3PDT**

OPTION CODE	DIM 'A'
V 4	.630 (16,00)
V 9	1.150 (29,21)



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

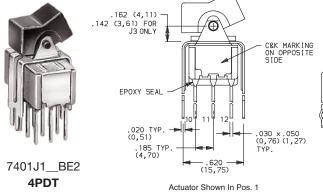


Specifications and c

G-19

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SNAP-IN

.048 TYP.
.125
(1,22)
.320
(8,13)

OPTION CODE DIM 'A'

V4 .630 (16,00)

V9 1.150 (29,21)

.073 DIA. (1,850) TYP.

.190 TYP.

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

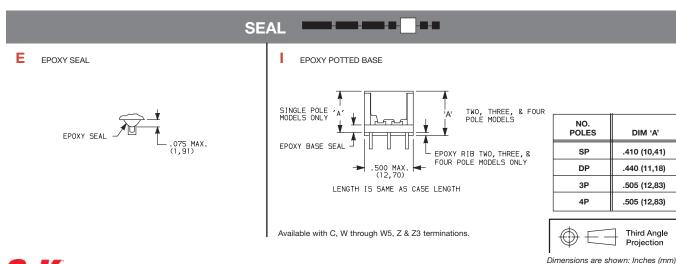
CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS		
В	GOLD ¹	GOLD ¹	LOW LEVEL/		
Р	GOLD .	MATTE-TIN ⁶	DRY CIRCUIT	0.4 VA MAX. @ 20 V AC OR DC MAX.	
Q	011.VED 4.5	SILVER 5	DOWED	5 AMDO @ 400 V AO OD 00 V DO 0 AMDO @ 050 V AO	
S	SILVER ^{4,5}	MATTE-TIN ⁶	MATTE-TIN ⁶ POWER	POWER	5 AMPS @ 120 V AC OR 28 V DC; 2 AMPS @ 250 V AC.
G	GOLD OVER SILVER ^{2,3}	GOLD ³	LOW LEVEL/DRY	0 4 VA MAX @ 20 V AC OR DC MAX OR 5 AMPS @	
R	GOLD OVER SILVER = 5-	MATTE-TIN ⁶	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.
- $^{\mbox{\scriptsize 1}}$ CONTACTS & TERMINALS: Copper alloy, with gold plate over nickel plate.
- $^2\ \mbox{END}$ CONTACTS: Coin silver, with gold plate over nickel plate.
- ³ CENTER CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate.
- ⁴ END CONTACTS: Coin silver, silver plated.
- ⁵ CENTER CONTACT & ALL TERMINALS: Copper alloy, silver plated.
- ⁶ TERMINALS: Copper alloy, with matte-tin over nickel plate.

- U11-U415 model numbers c us with all options when ordered with G, Q, S & R contact material.
- B contact material standard with all terminations except C, Z & Z3.
- Q contact material standard with C, Z & Z3 terminations.
- P. S & R. contact materials not available with Z & Z3 terminations.

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



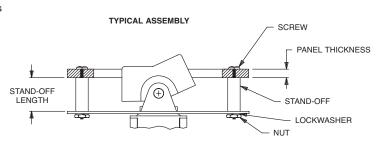
C₈K

Specifications and dimensions subject to change

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



J1 & J2 actuators

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

J3 actuators

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

J10 actuators

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

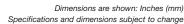
MATERIAL

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



Rocke







Material: Nylon Finish: Matte

27 mar 17

Material: Nylon Finish: Matte

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

PART NO.

769501000 WHITE 769502263 BLACK 769503000 RED

Material: Nylon Finish: Matte

PART NO.

530100000

Available in loose pieces.

Frame for J11 & J21 Actuators

Frame for J16 & J26 Actuators





Frame for J51, J61 & J91 Actuators



764500746 BLACK ENAMEL 764500747 WHITE ENAMEL 764601106 RETAINING SPRING

Material: Spring Steel Frame for J19 Actuator PART NO.

459101000 WHITE 459102000 BLACK 459103000 RED

Frame for J37 Actuator

Material: Nvlon Finish: Matte

PART NO.

615601000 WHITE 615602263 BLACK 615603000 RED

Material: Nylon

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



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



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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.

TYPICAL APPLICATION



J1 & J2 Actuators



.047" (1,19) PANEL THK.

.062" (1,57) PANEL THK.

.090" (2,29) PANEL THK.

.125" (3.18) PANEL THK.

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

452602263 BLACK

J50, J60 & J90 Actuators



.047" (1,19) PANEL THK.

.062" (1,57) PANEL THK.

.090" (2,29) PANEL THK.

.125" (3,18) PANEL THK.

PART NO.

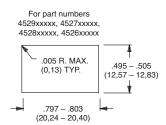
432502263

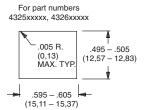
PART NO. 432602263

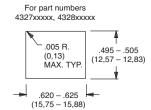
PART NO. 432702263 PART NO.

432802263 BLACK

PANEL MOUNTING









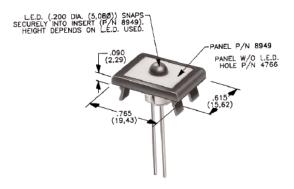


AVAILABLE HARDWARE

Panel Inserts

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

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



PANEL INSERT WITH HOLE FOR LED

BLANK PANEL INSERT WITHOUT HOLE FOR LED

PART NO.

894902000

PART NO.

476602000 BLACK

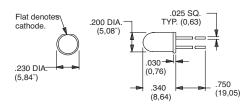
NOTE: Special colors, custom markings available, consult Customer Service Center.

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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.





Features/Benefits

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

Typical Applications

- **Telecommunications**
- Instrumentation
- Computers & peripherals





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 Ω 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).

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.

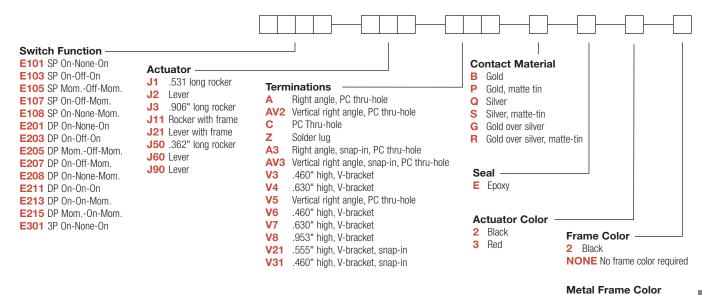
HARDWARE: Nut, Screw & Lockwasher: Stainless steel. Standoff: Nylon standard, aluminum available, consult Customer

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.



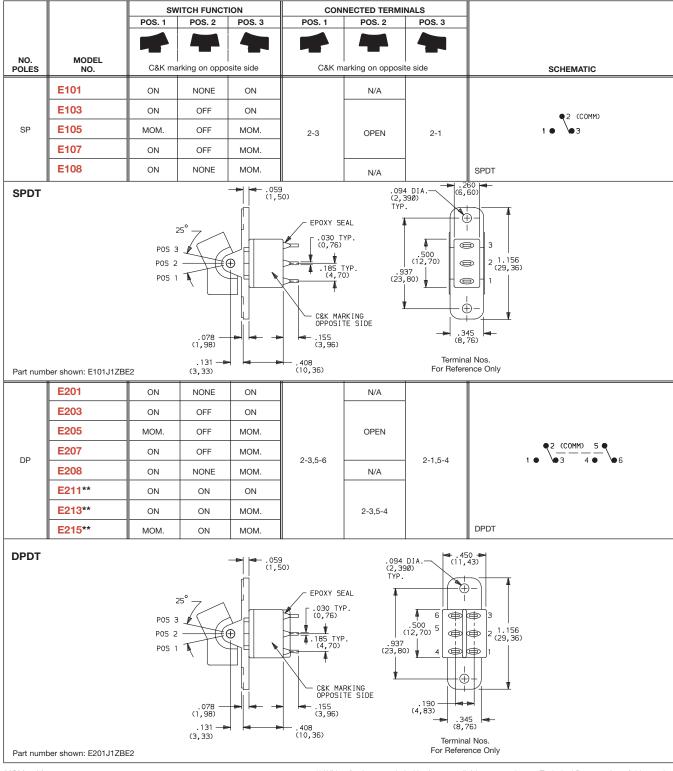
Dimensions are shown: Inches (mm) Specifications and dimensions subject to change

(J11, J21 Actuators) 2 Black

www.ckswitches.com



SWITCH FUNCTION



MOM. = Momentary

 ** Wiring for 3-way switch, Hardware available seperately, see Technical Data section of this catalog.

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

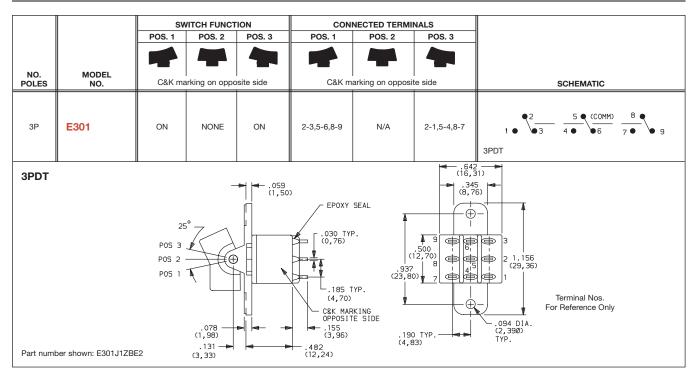






Dimensions are shown: Inches (mm)
Specifications and dimensions subject to change

SWITCH FUNCTION



MOM. = Momentary

** Wiring for 3-way switch, see Technical Data section of this catalog.

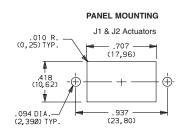
All models cNus with all options when ordered with G, Q, R and S contact material.

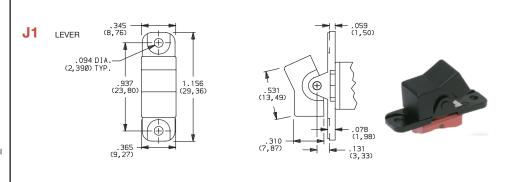
ACTUATOR-PANEL REAR MOUNT

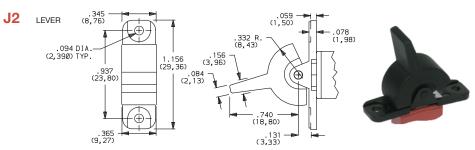
OPTION CODE	ACTUATOR COLOR
2	BLACK
3	RED

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 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 actua-tors available with C, Z or Z3 terminations.







G-27

Third Angle Projection

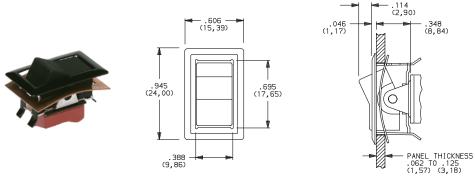
Dimensions are shown: Inches (mm) Specifications and dimensions subject to change





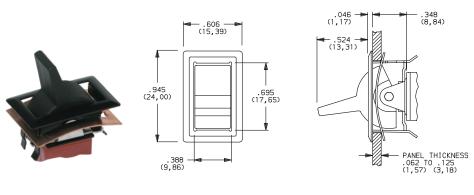


J11 ROCKER WITH FRAME



NOTE: This option has reduced anti-static capability.

J21 LEVER WITH FRAME

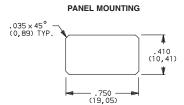


OPTION CODE ACTUATOR COLOR 2 **BLACK** 3 RED

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.

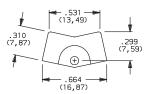


NOTE: This option has reduced anti-static capability.

ACTUA **ACTUATOR-PC MOUNT**

J1 ROCKER



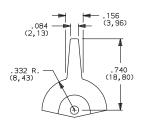


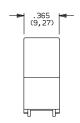


OPTION CODE	ACTUATOR COLOR
2	BLACK
3	RED

J2 LEVER







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 switches with pariel mouthing bracket. Internal or-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.





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

ACTUATOR-PC MOUNT

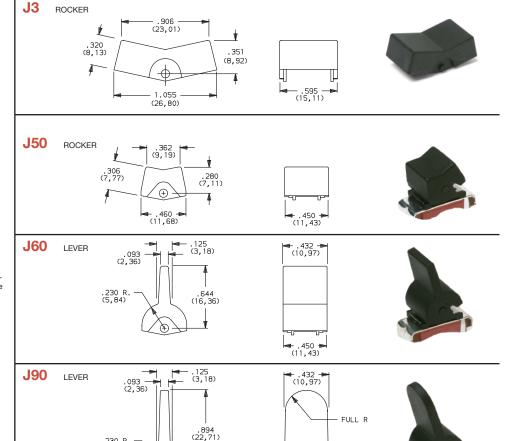
OPTION CODE	ACTUATOR COLOR
2	BLACK
3	RED

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 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.

J3 actuators available with AV2, AV3 & V2-V61 terminations. Some permissible actuator/termination combinations may lack clearance between actuator and PC board, and care must be exercised to accommodate this condition.

J50, J60 & J90 actuators available with A, AV2, AV3, V2 – V61 terminations.



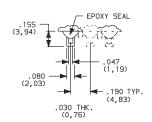
.450 (11,43)

TERMINATIONS

Ð

.230 R. (5,84)

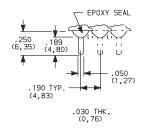
SOLDER LUG



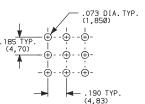
SPDT thru 3PDT

Not available with P, S, & R contact materials Available actuators, see page G-27-28.

PC THRU-HOLE



SPDT thru 3PDT



PC MOUNTING



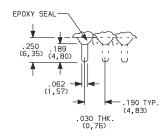
Dimensions are shown: Inches (mm) Specifications and dimensions subject to change



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TERMINATIONS

Z3 QUICK CONNECT



Not available with P, S, & R contact materials. Available actuators, see pages G-27 thru G-28. Mating quick connector available; order part number 530100000, page G-37.

SPDT thru 3PDT

RIGHT ANGLE, PC THRU-HOLE



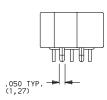
E101J1ABE2 Horizontal Actuation



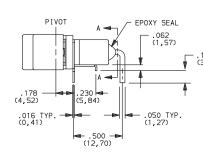
Actuator Shown In Pos. 1

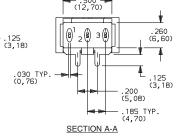
SPDT

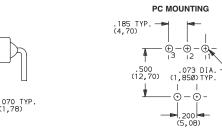
A3 RIGHT ANGLE, SNAP-IN, PC THRU-HOLE



NOTE: Not available with J3, J50, J60 and J90 actuators. Available actuators, see pages G-27 thru G-29. Terminal bend radii and lead-in manufacturing option.





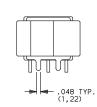


NOTE: PC mounting pattern must clear switch support leg.

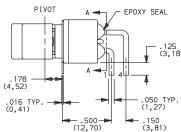
RIGHT ANGLE, PC THRU-HOLE

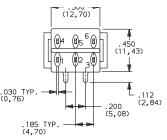


E201J1ABE2 Horizontal Actuation **DPDT**



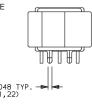
Actuator Shown In Pos. 1



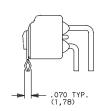


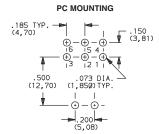
SECTION A-A

RIGHT ANGLE, SNAP-IN, PC THRU-HOLE



NOTE: Not available with J3 actuator. Available actuators, see pages G-27 thru G-29.
Terminal bend radii and lead-in manufacturing option.







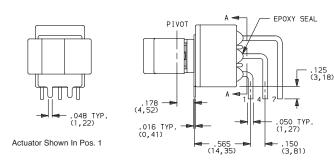
Dimensions are shown: Inches (mm) Specifications and dimensions subject to change

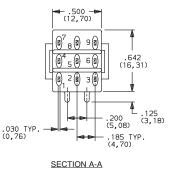




TERMINATIONS

RIGHT ANGLE, PC THRU-HOLE

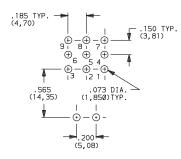






E301J1ABE2 Horizontal Actuation 3PDT

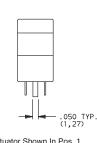
PC MOUNTING



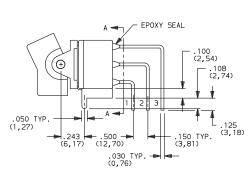
NOTE: Terminal bend radii and lead-in manufacturing option. Available actuators, see pages G-27 thru G-29.

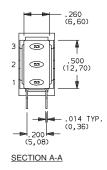
AV2

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



Actuator Shown In Pos. 1



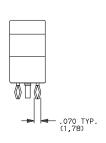


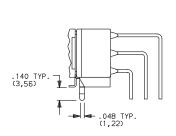


E101J1AV2BE2 Vertical Actuation **SPDT**

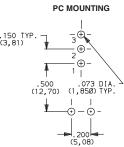
AV3

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





G-31



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





Specifications and dimensions subject to change



Dimensions are shown: Inches (mm)

E Series

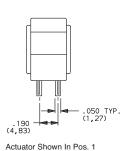
Sealed Miniature Rocker and Lever Handle Switches

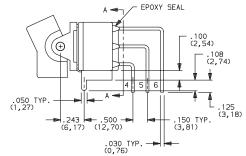
TERMINATIONS

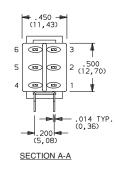
VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH



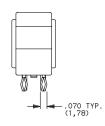
E201J1AV2BE2 Vertical Actuation **DPDT**

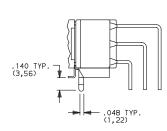


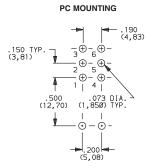




VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE,





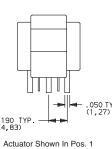


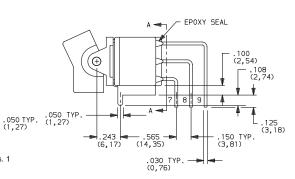
NOTE: Terminal bend radii and lead-in manufacturing option. Available actuators, see pages G-27 thru G-29.

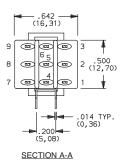
VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH



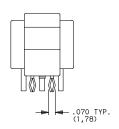
E301J1AV2BE2 Vertical Actuation 3PDT

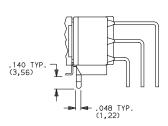


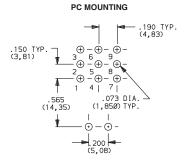




VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE,







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



Third Anale

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

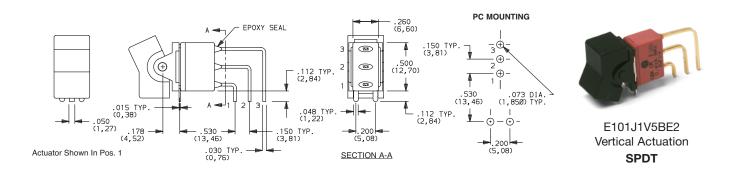




TERMINATIONS ----

V5

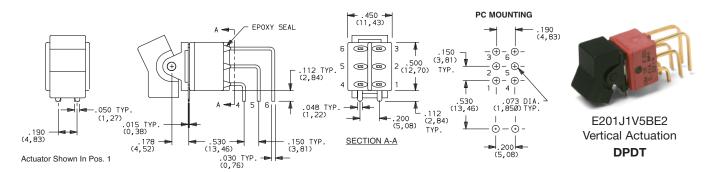
VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH



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

V5

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

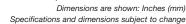


NOTE: Terminal bend radii and lead-in manufacturing option. Available actuators, see pages G-27 thru G-29.





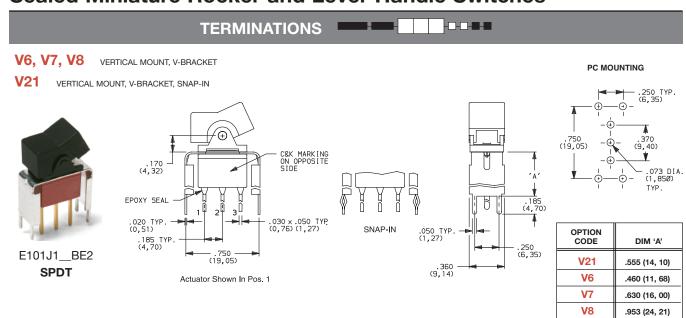


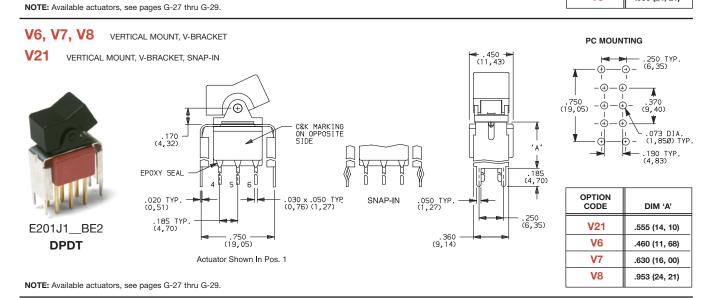


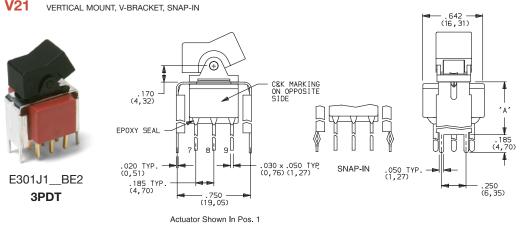


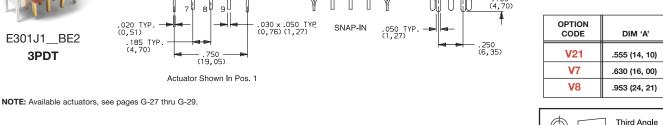
E Series

Sealed Miniature Rocker and Lever Handle Switches











Rocker

V7, V8

VERTICAL MOUNT, V-BRACKET

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

PC MOUNTING

 $\oplus - \oplus - \oplus$

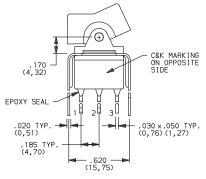
.190 TYP.

.750 (19,05)

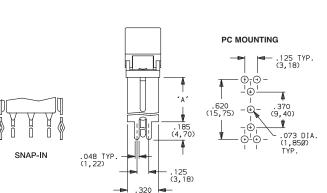
TERMINATIONS -

VERTICAL MOUNT, V-BRACKET

VERTICAL MOUNT, V-BRACKET, SNAP-IN









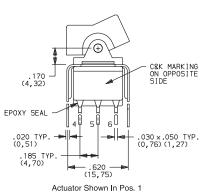
E101J1__BE2 SPDT

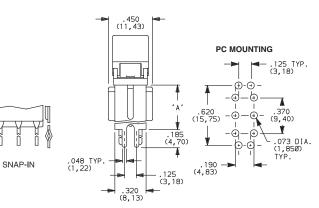
OPTION CODE	DIM 'A'
V3, V31	.460 (11,68)
V 4	.630 (16,00)

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

V3, V4 VERTICAL MOUNT, V-BRACKET

VERTICAL MOUNT, V-BRACKET, SNAP-IN





G-35



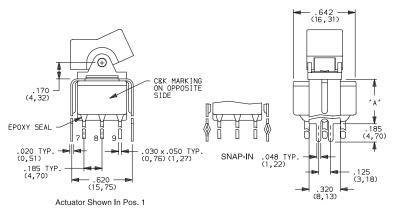
E201J1_BE2 **DPDT**

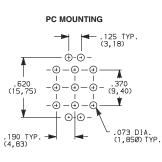
OPTION CODE	DIM 'A'
V3, V31	.460 (11,68)
V4	.630 (16,00)

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

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

V4 VERTICAL MOUNT, V-BRACKET VERTICAL MOUNT, V-BRACKET, SNAP-IN

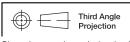






E301J1__BE2 3PDT

OPTION CODE	DIM 'A'
V41	.630 (16,00)





Specifications and dimensions subject to change

CONTACT MATERIAL

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	GOLD .	MATTE-TIN ⁷	DRY CIRCUIT	U.4 VA IVIAA. S 20 V AO ON DO IVIAA.
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 ³	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.

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

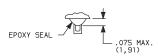
with all options when ordered with G, Q, S & R contact material.

B contact material standard with all terminations.

PR&S contact materials not available with Z terminations.



EPOXY SEAL



AVAILABLE HARDWARE

J2, J21 Actuators



PART NO. 760502263 BLACK 760503000 RED

Material: Nylon Finish: Matte

J3 Actuator



PART NO.

766602263 BLACK 766603000 RED

Material: Nylon Finish: Matte

J1, J11 Actuators



PART NO.

776A02263 BLACK 776A03000 RED

Material: Nylon Finish: Matte

J90 Actuator

J50 Actuator



Other colors available, consult Customer Service Center.

PART NO.

775A02263 BLACK 775A03000 RED

Material: Nylon

J60 Actuator



PART NO.

613802263 BLACK 598103000 RED

Material: Nylon

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

PART NO. 598002263 BLACK 598003000 RED

Material: Nylon Finish: Matte



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



 $^{^{\}mbox{\scriptsize 1}}$ CONTACTS & TERMINALS: Copper alloy, with gold plate over nickel plate.

 $^{^{2}}$ END CONTACTS: Coin silver, with gold plate over nickel plate.

 $^{^{\}mbox{\footnotesize 3}}$ CENTER CONTACTS & ALL TERMINALS: Copper alloy, with gold plate

⁴ END CONTACTS: Coin silver, silver plated.

 $^{^{5}}$ CENTER CONTACT & ALL TERMINALS: Copper alloy, with gold flash over silver

⁶ TERMINALS: Copper alloy, with matte-tin over nickel plate.

AVAILABLE HARDWARE

Fits Z3 Termination female connector



PART NO. 530100000

Available in loose pieces.

Frame for J11, J21 Actuators PART NO. 764500746 BLACK ENAMEL 764601106 RETAINING SPRING Material: Spring Steel c**FL**°us

J50, J60 & J90 Actuators

GLOSS

MATTE PART NO.

486702000 Material: Nylon

Finish: Matte or Gloss

PART NO. 486802000 BLACK

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.





J1 & J2 Actuators



.047" (1,19) PANEL THK.

.062" (1,57) PANEL THK.

.090" (2,29) PANEL THK.

.125" (3,18) PANEL THK.

PART NO.

452902263 452903000 PART NO. 452702263 452703000 PART NO. 452802263 452803000 PART NO.

452602263 BLACK 452603000 RED

J50, J60 & J90 Actuators



.047" (1,19) PANEL THK.

.062" (1,57) PANEL THK.

.090" (2,29) PANEL THK.

.125" (3,18) PANEL THK.

PART NO.

432502263 432503000 PART NO. 432602263 432603000 PART NO. 432702263 432703000 PART NO.

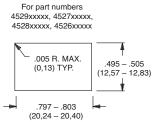
432802263 BLACK 432803000 RED

PANEL MOUNTING

For part numbers

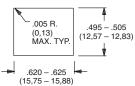
(15,11-15,37)

G-37



4325xxxxx, 4326xxxxx .005 R. 495 .505 (0,13) MAX. TYP (12.57 - 12.83).595 – .605

For part numbers 4327xxxxx, 4328xxxxx





Third Angle Projection

Dimensions are shown: Inches (mm)



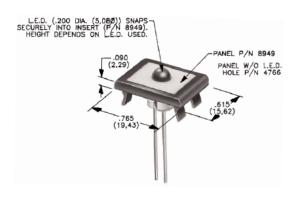
Specifications and dimensions subject to change

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

AVAILABLE HARDWARE

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

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



PANEL INSERT WITH HOLE FOR LED

BLANK PANEL INSERT WITHOUT HOLE FOR LED

PART NO.

894902000 894903000 PART NO.

476602000 BLACK 476603000 RED

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







Features/Benefits

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

Typical Applications

- Telecommunications
- Instrumentation
- Computers & peripherals







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 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).

PACKAGING: Surface mount switches standard in tape and reel packaging, see page G-45 for drawings and reel information.

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.

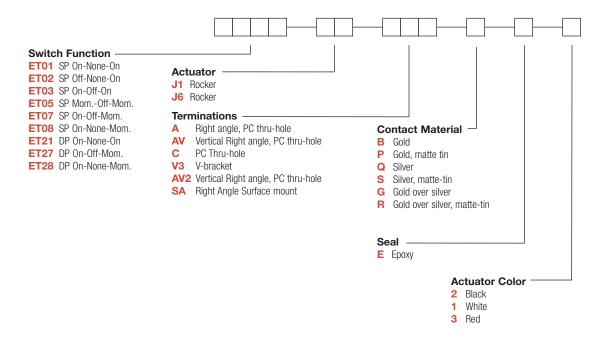
TERMINAL SEAL: Epoxy.

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 Cent

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.



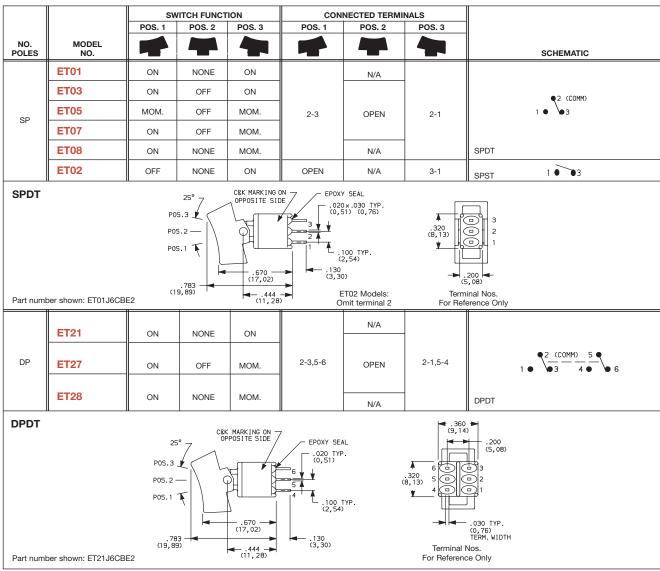




Rocker

ET Series Sealed Subminiature Rocker Switches

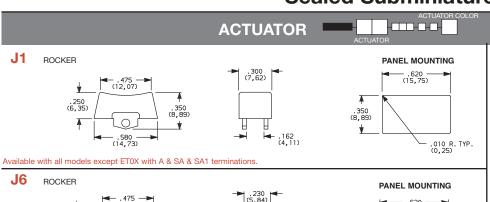
SWITCH FUNCTION



MOM. = Momentary

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

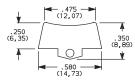




OPTION CODE ACTUATOR COLOR 2 BLACK 1 WHITE 3 RED

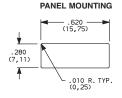
Actuators available separately, see page G-45. Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center

NOTE: Internal o-ring actuator seal standard.



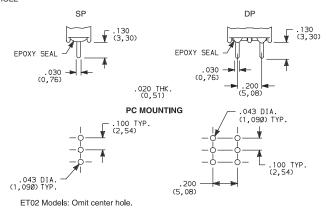
Standard with ET0X model with A & SA & SA1 terminations



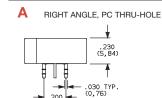


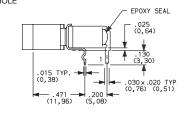
TERMINATIONS

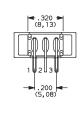
PC THRU-HOLE

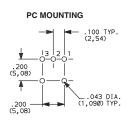


SP & DP











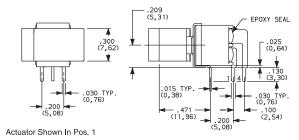
ET01J6ABE2 Horizontal Actuation **SPDT**

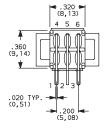
Not available with FT02 model

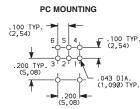
Actuator Shown In Pos. 1

J6 actuator std. only on ET0X models with A terminations



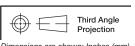








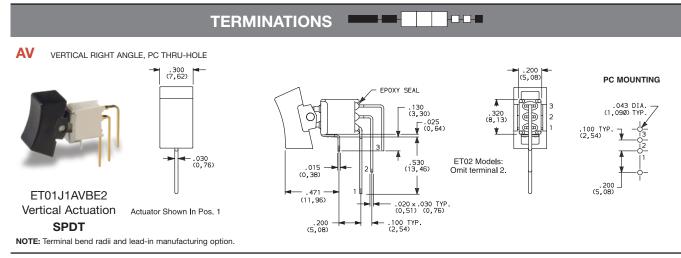
ET21J1ABE2 Horizontal Actuation **DPDT**





Specifications and dimensions subject to change

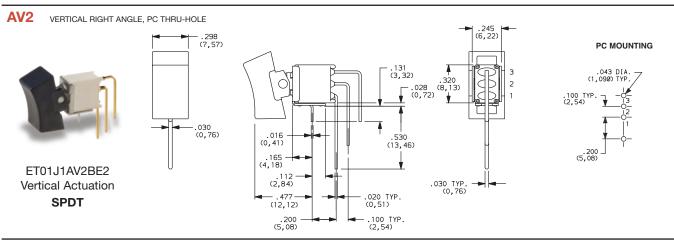




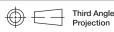
PC MOUNTING

PC MO

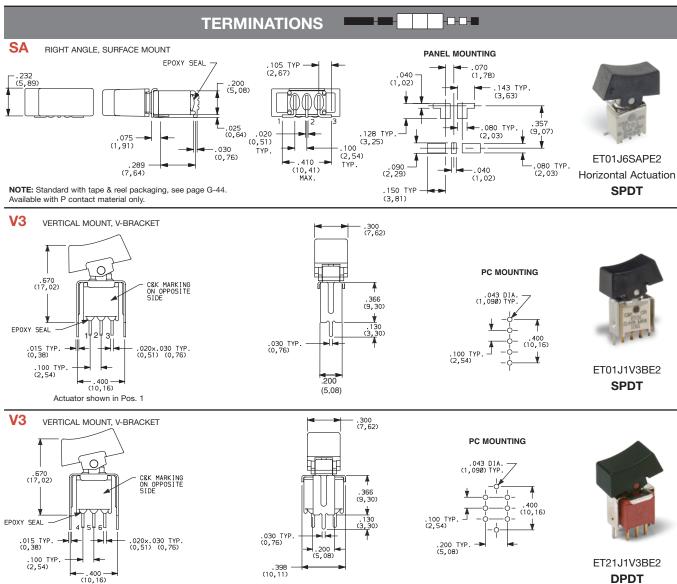
NOTE: Terminal bend radii and lead-in manufacturing option.







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CONTACT MATERIAL

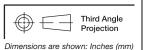
OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS			
В	GOLD ¹	GOLD ¹	LOW LEVEL/	O A VA MAY & SO V AO OD DO MAY		
Р	0025	MATTE-TIN ⁶	DRY CIRCUIT	0.4 VA MAX. @ 20 V AC OR DC MAX.		
Q	SILVER ^{4,5}	SILVER 5	POWER	ETX1 MODELS: 3 AMPS @ 120 V AC OR 28 V DC.		
S		MATTE-TIN ⁶		ALL OTHER MODELS: 2 AMPS @ 120 V AC OR 28 V DC.		
G	GOLD OVER	GOLD ³	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.		

G-43

Actuator shown in Pos. 1

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

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





Specifications and dimensions subject to change



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

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

 $^{^{2}}$ END CONTACTS: Coin silver, with gold plate over nickel plate.

 $^{^{\}mbox{\scriptsize 3}}$ CENTER CONTACTS & ALL TERMINALS: Copper alloy, with gold plate

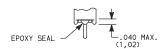
 $^{^{\}rm 4}$ END CONTACTS: Coin silver, silver plated.

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

⁶ TERMINALS: Copper alloy, with matte-tin over nickel plate.



EPOXY SEAL



AVAILABLE HARDWARE

J1 Actuator



PART NO.

261A01000 WHITE 261A02263 BLACK 261A03000 RED

Material: Nylon Finish: Matte

NOT AVAILABLE WITH A, SA, SA1



PART NO.

J6 Actuator

621C01000 WHITE 621C02263 BLACK 621C03000 RED

Material: Nylon Finish: Matte

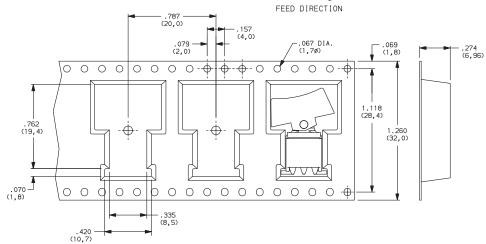
For Hi Temp, Consult Factory

NOTE: Other colors available, consult Customer Service Center.

TAPE & REEL SA TERMINATION

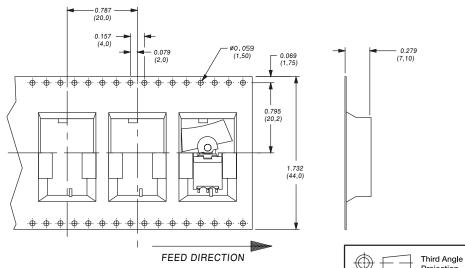
ET01J6SABE (SHOWN)

REEL INFORMATION				
OUTSIDE DIAMETER 13.00 (330,0)				
PILOT HOLE	.512 (13,0)			
QUANTITY PER REEL	500			



ET01J6SA1BE (SHOWN)

REEL INFORMATION				
OUTSIDE DIAMETER	13.00 (330,0)			
PILOT HOLE	.795 (20,20)			
QUANTITY PER REEL	450			



Rocker



Features/Benefits

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

Typical Applications

- **Telecommunications**
- Instrumentation







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

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.

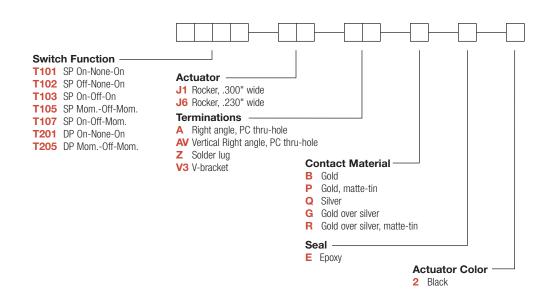
TERMINAL SEAL: Epoxy.

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.



G-45

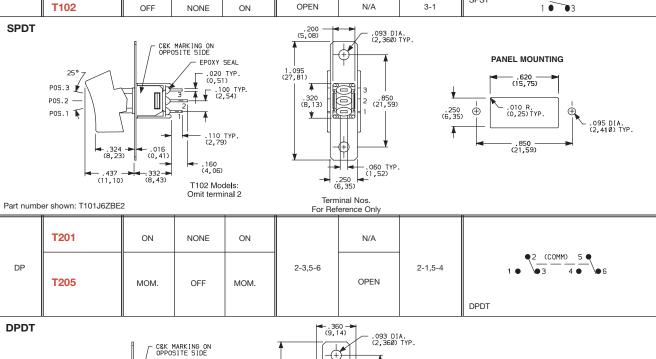


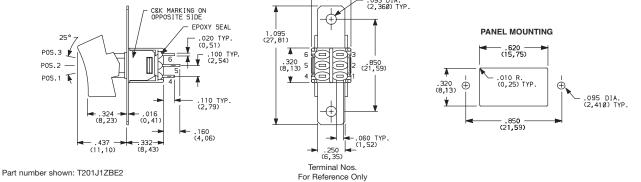




SWITCH FUNCTION CONNECTED TERMINALS POS. 1 POS. 1 POS. 2 POS. 3 POS. 2 POS. 3 MODEL NO. NO. POLES C&K marking on opposite side C&K marking on opposite side **SCHEMATIC** T101 ON NONE T103 ON OFF Q2 (COMM) ON 2-3 2-1 **9**3 SP T105 мом. OFF мом. OPEN SPDT T107 ON OFF MOM.

SWITCH FUNCTION





MOM. = Momentary

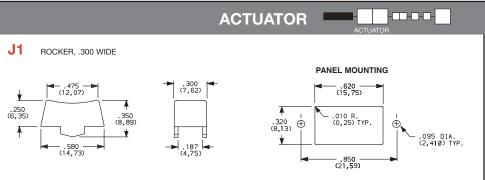
All models with all options when ordered with G, Q or R contact material.







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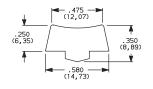
Standard with all models except T10X with A terminations.

OPTION ACTUATOR COLOR

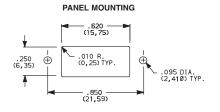
2 BLACK

Actuators available separately, see page G 50. Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

J6 ROCKER, .230 WIDE



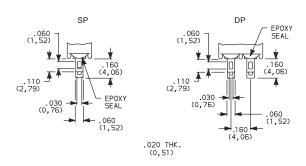




Standard with T10X model with A terminations.

TERMINATIONS ----

Z SOLDER LUG

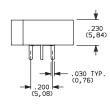


SP and DP

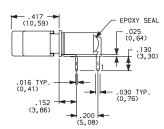
Not available with P or R contact material.

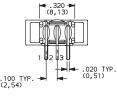
Δ

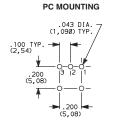
RIGHT ANGLE, PC THRU-HOLE



Actuator Shown In Pos. 1









T101J6ABE2 Horizontal Actuation SPDT

Not available with T102 model. J6 actuator standard only on T10X models with A terminations.



Third Angle Projection

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



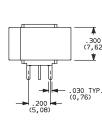
www.ckswitches.com

TERMINATIONS

RIGHT ANGLE, PC THRU-HOLE

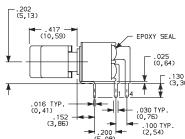


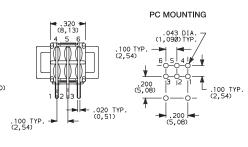
T201J1ABE2 Horizontal Actuation



Actuator Shown In Pos. 1

- .417 -(10,59) .016 TYP. (0,41) 152 (3,86)





DPDT

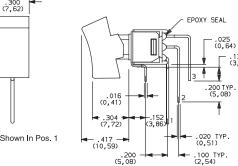
VERTICAL RIGHT ANGLE, PC THRU-HOLE

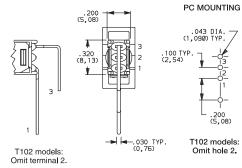


T101J1AVBE2 Vertical Actuation **SPDT**



Actuator Shown In Pos. 1





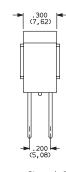
NOTE: Terminal bend radii and lead-in manufacturing option.

VERTICAL RIGHT ANGLE, PC THRU-HOLE

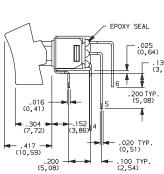


T201J1AVBE2 Vertical Actuation

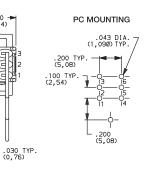
DPDT



Actuator Shown In Pos. 1





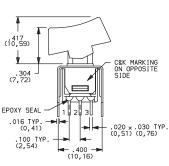


NOTE: Terminal bend radii and lead-in manufacturing option.

V3 VERTICAL MOUNT, V-BRACKET



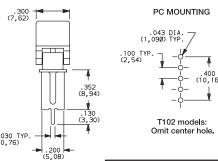
T101J1V3BE2 **SPDT**



Actuator Shown In Pos. 1



T102 models:





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

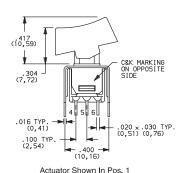


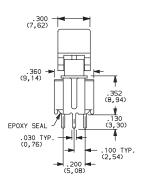


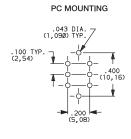
TERMINATIONS

V3

VERTICAL MOUNT, V-BRACKET









T201J1V3BE2 **DPDT**

CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS			
В		GOLD ¹	LOW LEVEL/	0.4 VA MAX. @ 20 V AC OR DC MAX.		
P	GOLD ³	MATTE-TIN ⁶	DRY CIRCUIT			
Q	SILVER ^{4,5}	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 ³		TX01 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.

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

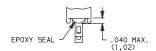
All models $_{\odot}$ With all options when ordered with G, Q, or R contact material. B contact material standard with A, AV, V3 terminations.

Q contact material standard with C & Z terminations.

P & R contact materials not available with Z terminations.

SEAL

E EPOXY SEAL



G-49

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

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

 $^{^{2}}$ END CONTACTS: Coin silver, with gold plate over nickel plate.

 $^{^{\}mbox{\scriptsize 3}}$ CENTER CONTACTS & ALL TERMINALS: Copper alloy, with gold plate

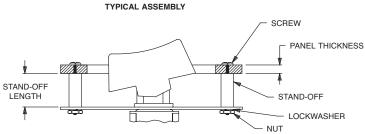
 $^{^{4}}$ END CONTACTS: Coin silver, silver plated.

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

⁶ TERMINALS: Copper alloy, with matte-tin over nickel plate.

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.

J1 Actuator



PART NO. 468002263 BLACK

Material: Nylon Finish: Matte J6 Actuator



PART NO.

468102263 BLACK

Material: Nylon Finish: Matte

NOTE: Other colors, custom actuator markings and legends available,

Rocker









Third Angle Projection

9000 Series **Power Rocker and Lever Handle Switches**



Features/Benefits

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

Typical Applications

- Small equipment
- Shut-off switch

UL 61058-1 c **71**° us





Specifications

CONTACT RATING:

9201 Model:

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

9221 Model:

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

ELECTRICAL LIFE: 25,000 make-and-break cycles at full load.

CONTACT RESISTANCE: Below 10 m Ω typ. initial @

2-4 V DC, 100 mA.

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

DIELECTRIC STRENGTH: 2,500 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).

Materials

CASE: Diallyl phthalate (DAP) (UL 94V-0). ACTUATOR: Nylon, black standard.

FRAME-REAR MOUNT OPTIONS: Spring steel, black.

BUSHING: Brass, nickel plated. HOUSING: Stainless steel.

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

MOUNTING BRACKET: Stainless steel.

END CONTACTS: 9201 Model: Coin silver, silver plated.

9221 Model: Silver cadmium oxide.

CENTER CONTACTS: Copper alloy, silver plated

ALL TERMINALS: 9201 Model: Copper alloy, silver plated.

9221 Model: Copper alloy, matte-tin plated.

TERMINAL SEAL: Epoxy.

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

Service Center.

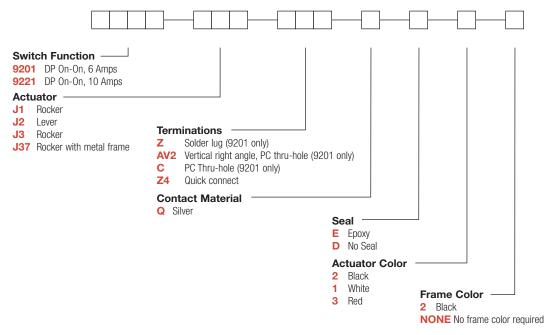
*Cadmium used in electrical contacts is acceptable for RoHS.

NOTE: Any models supplied with Q 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-52 through G-55. For additional options not shown in catalog, consult Customer Service Center.

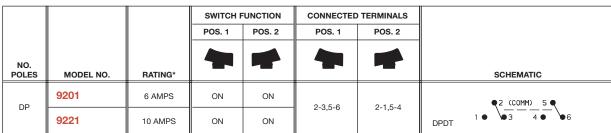


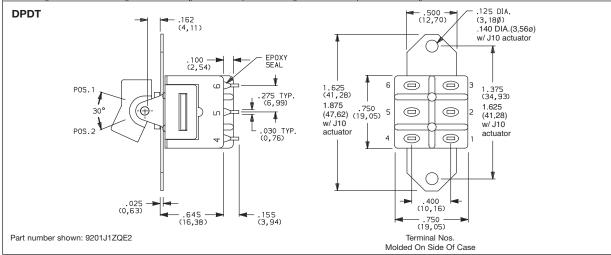


9000 Series

Power Rocker and Lever Handle Switches

SWITCH FUNCTION





All 9000 Series models meet international dimensional and electrical requirements. c 15





* See CONTACT MATERIAL, page G-54, for complete ratings. 9221 model must be ordered with Z4 terminations and D seal option.

ACTUATOR-PANEL MOUNT

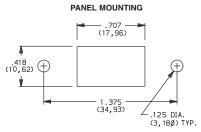
ROCKER



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.

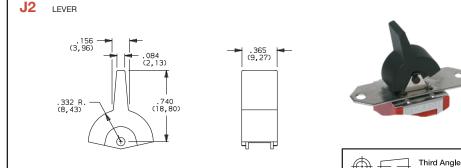




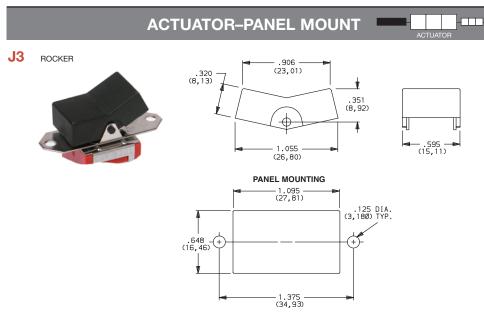
- .664 -(16,87)







9000 Series **Power Rocker and Lever Handle Switches**



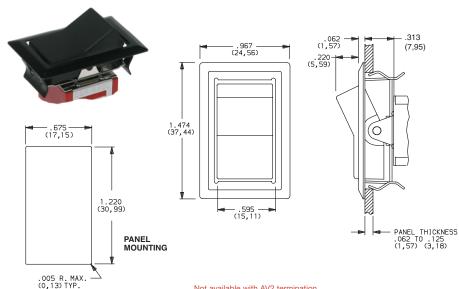
OPTION CODE	ACTUATOR COLOR		
2	BLACK WHITE		
1			
3	RED		

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

NOTE: Actuators available separately, see page G-55. 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. Hardware available separately, see Technical Data section of this catalog.







OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE
3	RED

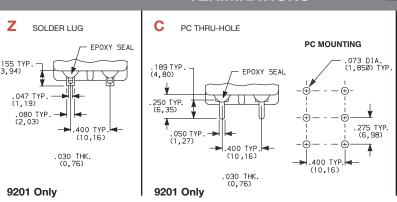
OPTION CODE	FRAME COLOR		
2	BLACK		

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

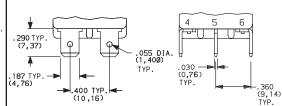
NOTE: Actuators & frames available separately, see page G-55. Hardware: two each—mounting screws, nuts, lockwashers and standoffs for 1/8 inch thick panel are supplied standard on all switches with panel mounting brackets. Hardware available separately, see Technical Data section of this catalog.

TERMINATIONS

Not available with AV2 termination.

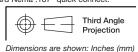






9201 and 9221

NOTE: Only termination available with 9221 model. Must be ordered with D seal option. Mating terminal standard Nema .187" quick connect.



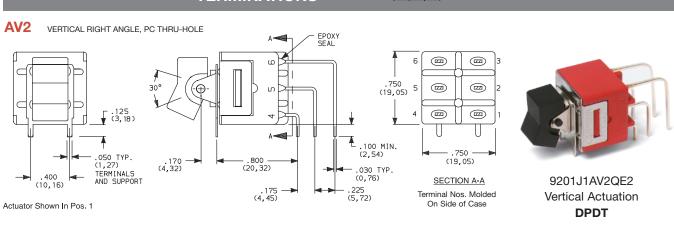
Specifications and dimensions subject to change

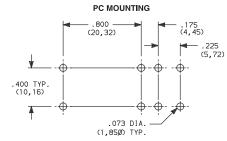


9000 Series

Power Rocker and Lever Handle Switches

TERMINATIONS





9201 Only

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

CONTACT MATERIAL

OPTION CODE	MODEL	CONTACT MATERIAL	TERMINAL PLATING	RATINGS			
	9201	SILVER 1,2	SILVER OR TIN ^{2,5}	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 ⁵	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.
 - ¹ END CONTACTS: Coin silver, silver plated.
 - $^{\rm 2}$ CENTER CONTACTS & ALL TERMINALS: Copper alloy, silver plated.
 - ³ END CONTACTS: Silver cadmium oxide.
 - 4 CENTER CONTACTS: Copper alloy, silver plated.
 - ⁵ Z4 TERMINALS ONLY: Copper alloy, tin plated.
 - ⁶ Cadmium used for electrical contacts is acceptable for RoHS.

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. c 15







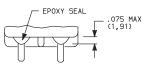
EPOXY SEAL

Rocker





NO EPOXY SEAL





Not available with 9221 model or Z4 terminations.

Must be ordered with 9221 model and Z4 termination.

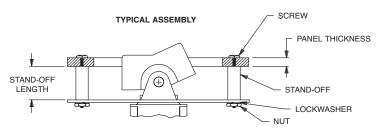




9000 Series **Power Rocker and Lever Handle Switches**

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)		

J1 Actuator



PART NO. 776A01000 WHITE

776A02263 BLACK 776A03000 RED

Material: Nylon Finish: Matte

J2 Actuator



PART NO.

760501000 WHITE BLACK 760503000 RED

Material: Nylon Finish: Matte

J3, J37 Actuators



PART NO.

766601000 WHITE BLACK 766603000 RED

Material: Nylon Finish: Matte

Frame for J37 Actuators



PART NO.

445400746 BLACK ENAMEL

Material: Spring Steel

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

Other colors available, consult Customer Service Center.



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



DA Series Miniature Single Pole Rocker Switches

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

CAL UL 61058-1

Typical Applications

Small appliances

Computers and peripherals

Medical instrumentation



Specifications

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

Materials

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

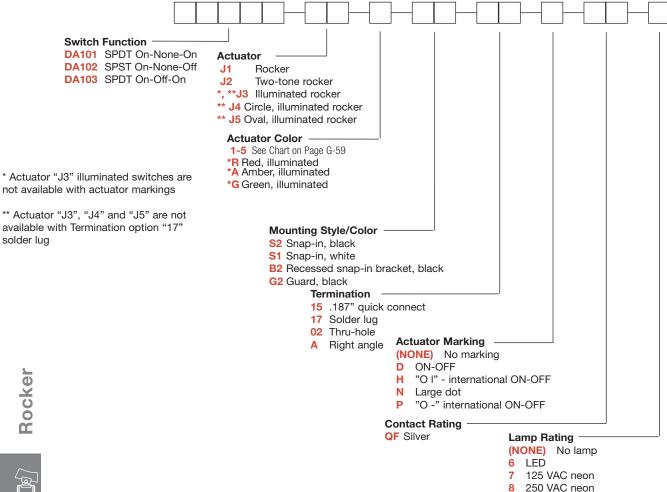
END CONTACTS: Silver plated.

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-57 through G-59. For additional options not shown in catalog, consult Customer Service Center.







DA Series Miniature Single Pole Rocker Switches

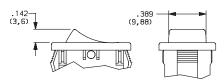
SWITCH FUNCTION

		S	WITCH FUNCTIO	N	CON	NECTED TERMIN	ALS	
NO. POLES	MODEL NO.	Cak	marking on opposi	te side	C&K mai	rking on opposite s	side	SCHEMATIC
POLES	DA101	ON	NONE	ON	Carrina	Timing on opposite t	Jude	SCHEMATIC 1 2 3
SP	DA102	ON	NONE	OFF	2-3	N/A	2-1	OR For 7 & 8 Illuminated Versions Only
	DA103	ON	OFF	ON				For 6 Illuminated Versions Only
		ć	.823 (20,9)	827 (21,0)	.079 (2,0) (2,0) .543 (13,8)	.591 (15,0) 89	.087 DIA. (ø2,2)	
	Shown in Po	os. 1	-	(7,1) 728 ————————————————————————————————————		,		

ACTUATOR ----

J1 ROCKER

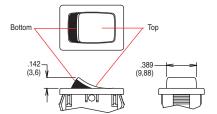
*J3 ILLUMINATED ROCKER



NOTE: J3 actuator available with DA102 switch functions, 7&8 lamp ratings and not available with O2 and A termination options.

* J3 actuator not available with markings or Termination option "17" solder lug

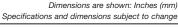
J2 TWO-TONE ROCKER



- Available with DA102 switch function only.
 Available with None or P actuator marking options only.



Dimensions are shown: Inches (mm)





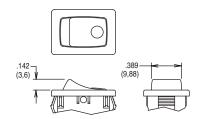




DA Series Miniature Single Pole Rocker Switches

ACTUATOR -----

J4 CIRCLE, ILLUMINATED ROCKER

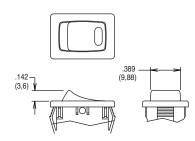


NOTE: Available with DA102 switch function and

7 & 8 lamp ratings combinations only. Not available with O2 and A termination options.

* J4 actuator not available with Termination option "17" solder lug

J5 OVAL, ILLUMINATED ROCKER

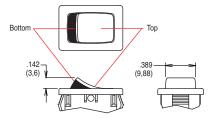


NOTE: Available with DA102 switch function and 6 lamp rating combinations only. Not available with O2 and A termination options. * J5 actuator not available with Termination option "17" solder lug

ACTUATOR COLOR

	OPTION CODE	ACTUATOR COLOR
	2	BLACK
J1only	1	WHITE
	3	RED
12 14	R	RED, ILLUMINATED
J3, J4, J5 only	Α	AMBER, ILLUMINATED
,	G	GREEN, ILLUMINATED

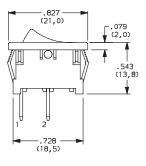
		CODE	COLOR		
1			TOP	воттом	
		1	WHITE	RED	
J2		2	WHITE	BLACK	
on	ly	3	RED	WHITE	
		4	BLACK	WHTE	
		5	BLACK	RED	

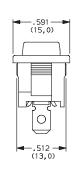


MOUNTING STYLE/COLOR

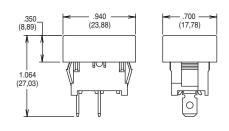
\$2 SNAP-IN, BLACK

\$1 SNAP-IN, WHITE





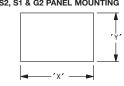




G-58



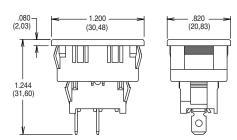
S2, S1 & G2 PANEL MOUNTING



ı	PANEL THICKNESS	"X"	"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



NOTE: Available with DA10X switch functions only.

B2 PANEL MOUNTING

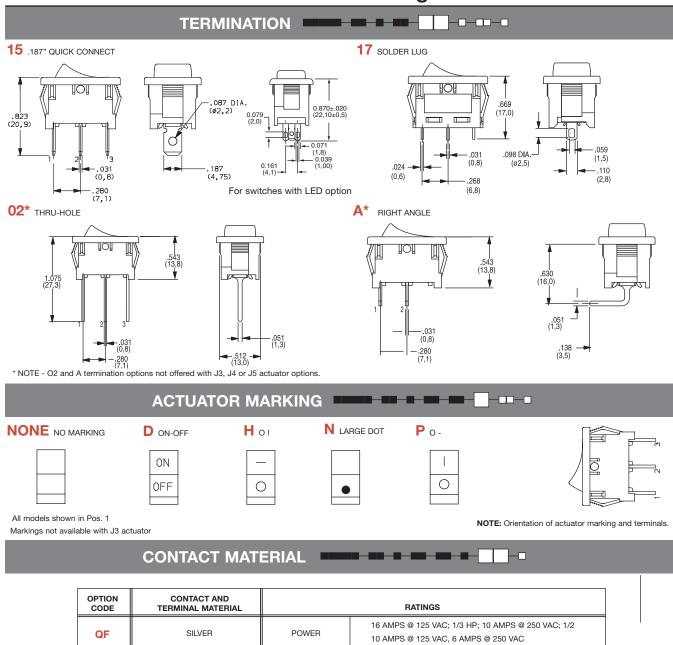


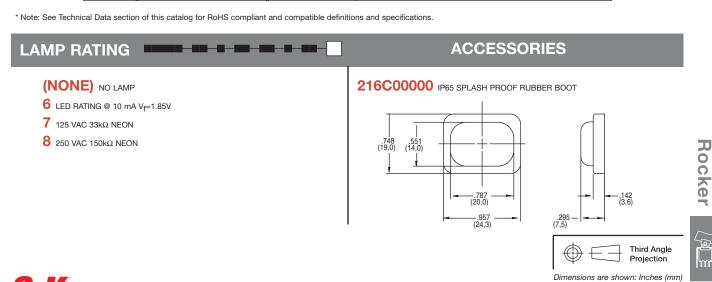
PANEL THICKNESS	"Y"
0.030-0.049 (0,75-0,25)	1.068 (27,13)
0.049-0.079 (1,25-2,0)	1.076 (27,33)
0.079-0.118 (2,0-3,0)	1.092 (27,74)





DA Series Miniature Single Pole Rocker Switches





C&K

www.ckswitches.com

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

Typical Applications

- Small appliances
- Computers and peripherals
- Medical instrumentation



UL 61058-1



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: $10^9 \ \Omega$ min.

DIELECTRIC STRENGTH: 1,000 Vrms min. @ sea level.

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.

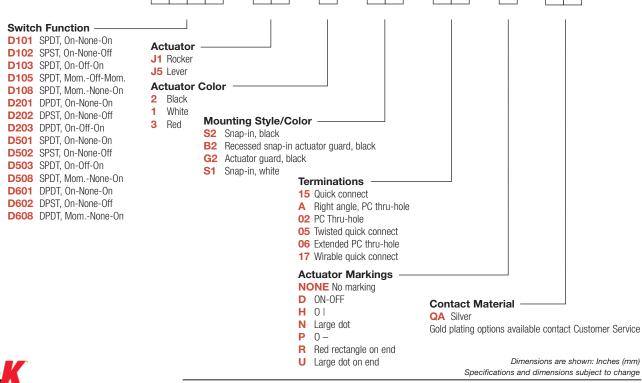
CONTACT SPRING: Music wire or stainless steel.

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.





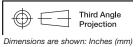


SWITCH FUNCTION

			sw	/ITCH FUNCT	ION	CON	NECTED TERMI	NALS	
			POS. 1	POS. 2	POS. 3	POS. 1	POS. 2	POS. 3	
NO. POLES	MODEL NO.	AMP RATING*		4	4		4	4	SCHEMATIC
	D102 D502	4 10	ON	NONE	OFF			OPEN	SPST 1 1A
	D101 D501	4 10		NONE			N/A		1
SP	D103 D503	4 10	ON	OFF	- ON	1-1A	OPEN	1-1B	
	D105	4	мом.	OFF	MOM.				SPDT ^{1A} ^{1B}
	D108 D508	4 10	мом.	NONE	ON		N/A		
SPDT Part numb	er shown: D101J12S2		actuator sho	.031 x . (0,79) (4,75)	.820 (20,8: .218 (5,54	1A TYP	95.	
	D202 D602	4 10	ON	NONE	OFF		NI/A	OPEN	DPST 1A 2A
DP	D201 D601	4 10 4	ON	NONE	ON	1-1A, 2-2A	N/A OPEN	1-1B, 2-2B	1 2 2 1 1 A 1B 2A 2B
	D608	10	MOM.	NONE	-		N/A	-	DPDT 2A 2B
DPDT	nber shown: D201J12S		.00 (0, TY	.26 (7, .2 (7, .31 x .187 79) (4,75)	20) 34	.820 (20,83) 2A	.874 (22,20) .400 (10,16) .939 (23,85) TERMINAL NOS.	155 TYP (3,94) 18 1730 1 (18,54) 1A 1.050 (1,27)	

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

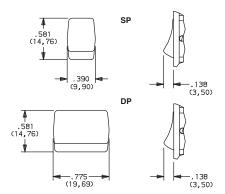




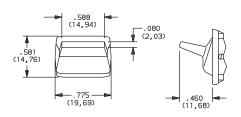
Specifications and dimensions subject to change

ACTUATOR ACTUATOR COLOR

J1 ROCKER



J5 LEVER



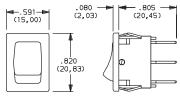
OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE
3	RED

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

'J5' actuator available only with DP models D201, D202, D601 and D602.

MOUNTING STYLE/COLOR

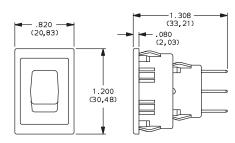




OPTION CODE	HOUSING COLOR
2	(STD.) BLACK
1	WHITE

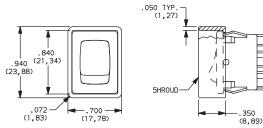
NOTE: Frame finish on housing: matte. Other colors available, consult Customer Service Center.

B2 RECESSED SNAP-IN ACTUATOR GUARD, BLACK



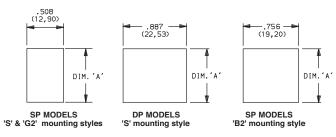
NOTE: Vertical mount, SP models only.

G2 ACTUATOR GUARD, BLACK



NOTE: Vertical mount, SP models only.

PANEL MOUNTING



PANEL THICKNESS	DIM 'A' SP & DP MODELS 'S' MOUNTING STYLE	DIM 'A' WITH 'G2" OPTION SP MODELS ONLY	DIM 'A' SP MODELS 'B' MOUNTING STYLE
.030049	.756	.764	1.068
(0,76) (1,24)	(19,20)	(19,41)	(27,13)
.049079	.764	.780	1.076
(1,24) (2,01)	(19,41)	(19,81)	(27,33)
.079118 (2,01) (3,00)	.780 (19,81)	n/a	

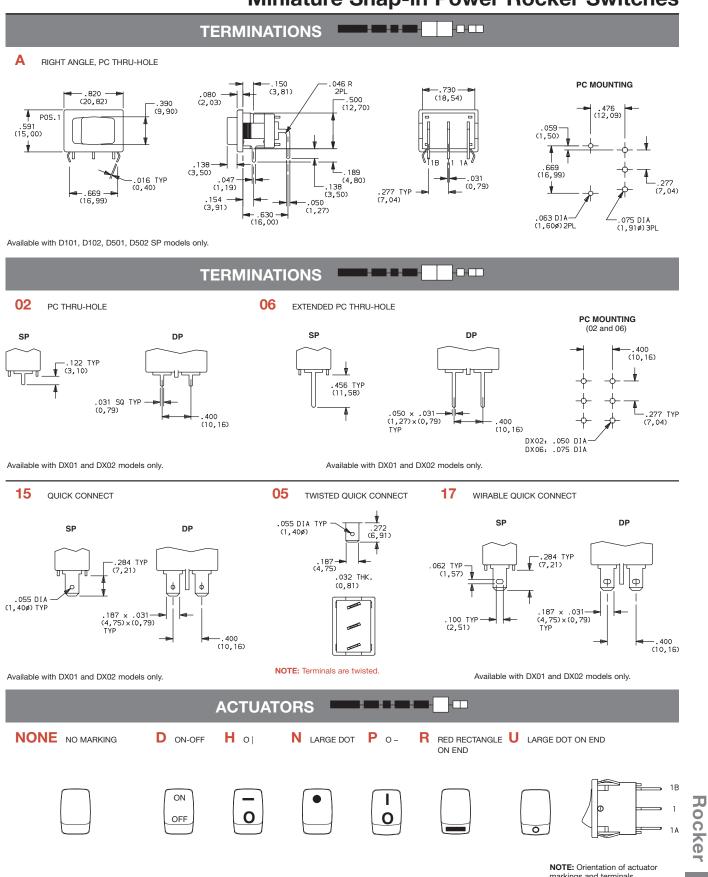
NOTE: Blank insert available for SP models only, see page G-64.



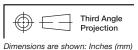
Dimensions are shown: Inches (mm) Specifications and dimensions subject to change







'D. H. P & U' marking options; marking color white, standard for all actuator colors except white. Black marking color, standard for white actuators. 'R & N' marking option: red marking color, standard. Consult Customer Service Center for other available marking colors. markings and terminals.



Specifications and dimensions subject to change



CONTACT MATERIAL

OPTION CODE	CONTACT AND TERMINAL MATERIAL	RATINGS		
		D101, D102, D103, D10	5, D108, D201, D202, D203	
QA	SILVER 1	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	

¹MOVABLE CONTACT: D10X and D20X MODELS: Copper, silver plated. D50X and D60X MODELS: Coin silver, silver plated.

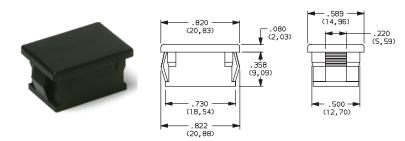
c**¶**³∪s ∰15

0.4VA @ 20V AC/DC Gold plated options avilable contact Customer Service.

STATIONARY CONTACTS & TERMINALS: Copper or brass, silver plated.

AVAILABLE HARDWARE

Insert SP Only



Recessed Actuator Guard, SP Only



PART NO.

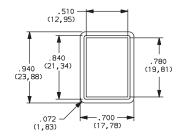
057190200 BLACK

Material: Nylon 6/6 Finish: Matte

599D02000 BLACK

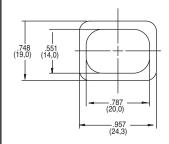
Material: 6/6 Nylon Finish: Matte

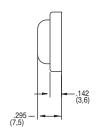
Actuator Guard



PART NO.

216C00000 IP65 SPLASH PROOF RUBBER BOOT





PART NO.

104C22000

Material: PBT thermoplastic Finish: Matte







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

G-64



Features/Benefits

- 3 AMPS to 10 AMPS
- Quick connect terminals
- Double pole in miniature size
- Recessed bracket available prevents accidental actuation
- RoHS compliant

Typical Applications

- Computers
- Appliances
- Electric tools





Specifications

CONTACT RATING:

DM21, DM22:

GP (general purpose)

3 AMPS 125 VAC 50/60 Hz T85 10,000 cycles

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

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

Materials

HOUSING & ACTUATOR: 6/6 nylon (UL94V-2), black.

MOVABLE CONTACTS: DM2X Models: Copper, silver plated. DM6X Models: Coin silver, silver plated.

STATIONARY CONTACTS & TERMINALS: Copper or brass, silver plated.

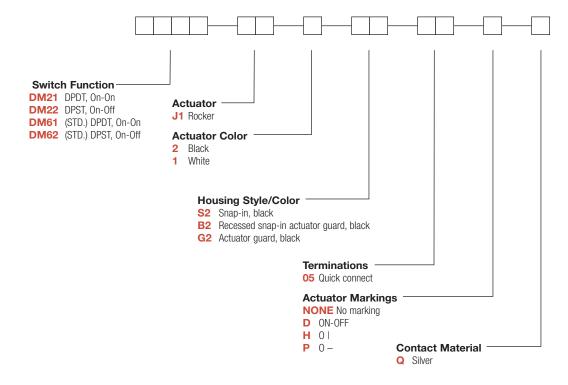
CONTACT SPRING: Music wire or stainless steel.

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

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-66 and G-68. For additional options not shown in catalog, consult Customer Service Center.

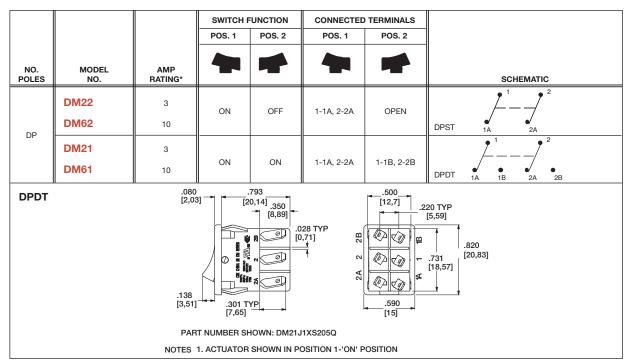




Dimensions are shown: Inches (mm) Specifications and dimensions subject to change

www.ckswitches.com

SWITCH FUNCTION



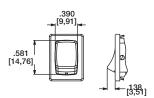
RATINGS: See page G-65 for complete ratings.



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

ACTUATOR

ROCKER

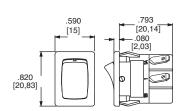


OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE

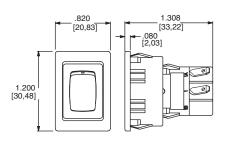
NOTE: Actuator finish: matte. Other colors available, consult Customer Service Center.

HOUSING STYLE/COLOR ----

S2 SNAP-IN, BLACK



NOTE: Housing finish: matte. Other colors available, consult Customer Service Center. RECESSED SNAP-IN ACTUATOR GUARD, BLACK

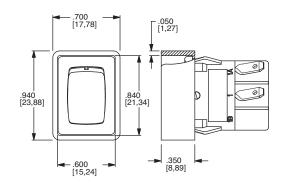


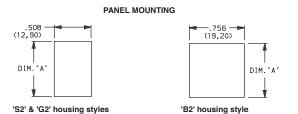




HOUSING STYLE/COLOR

ACTUATOR GUARD, BLACK



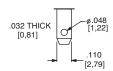


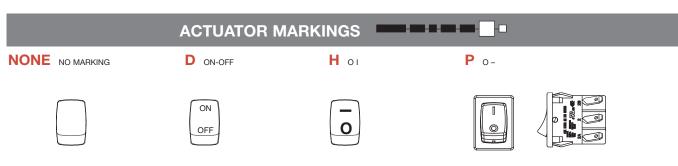
NOTE: Blank insert available for SP models only, see page H-76.

PANEL THICKNESS	DIM 'A' 'S2' & 'G2' HOUSING STYLES	DIM 'A' 'G2' OPTION SP MODELS ONLY	DIM 'A' 'B2' HOUSING STYLES
.030049	.756	0.764	1.068
(0,76) (1,24)	(19,20)	(19,41)	(27,13)
.049079	.764	0.780	1.076
(1,24) (2,01)	(19,41)	(19,81)	(27,33)
.079118	.780	n/a	1.092
(2,01) (3,00)	(19,81)		(27,74)

TERMINATIONS

05 QUICK CONNECT





NOTE: Orientation of actuator markings and terminals.

'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		
Q	SILVER 1,2	DM21, DM22:	GP (general purpose)	3 AMPS 125 VAC 50/60 Hz T85 10,000 cycles
ا	SILVER 1,2			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.

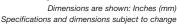
¹ MOVABLE CONTACT: DM2X Models: Copper, silver plated. DM6X Models: Coin silver, silver plated.

 2 STATIONARY CONTACTS & TERMINALS: Copper or brass, silver plated.

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

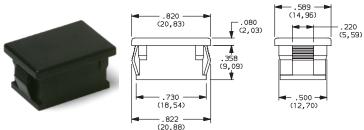






www.ckswitches.com

AVAILABLE HARDWARE



PART NO.

599D02000

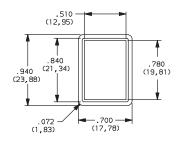
Material: 6/6 Nylon Finish: Matte

Recessed Actuator Guard

PART NO. 057190200

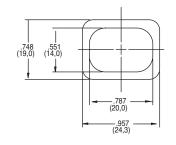
Material: Nylon 6/6 Finish: Matte

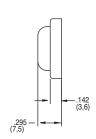
Actuator Guard



PART NO.

216C00000 IP65 SPLASH PROOF RUBBER BOOT





PART NO.

104C22000

Material: PBT thermoplastic Finish: Matte





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

UL 61058-1

Specifications

CONTACT RATING: DM14 and DM24 Models: 3 AMPS @ 125 V AC; 2 AMPS @ 250 V AC. DM54 and DM64 Models: 10 AMPS @ 125 V AC; 5 AMPS @ 250 V AC (UL).

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.

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

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

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.

STATIONARY CONTACTS & TERMINALS: Copper or brass,

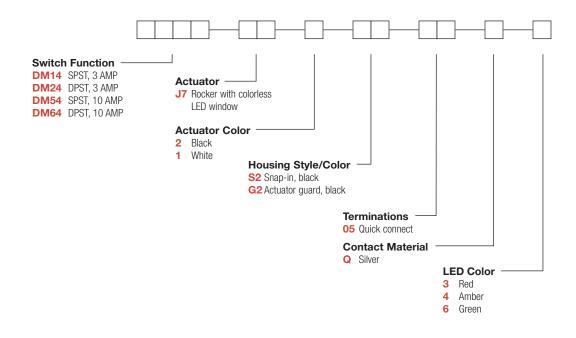
silver plated.

LED TERMINALS: Brass, unplated.

CONTACT SPRING: Music wire or stainless steel. OPERATING TEMPERATURE: -20°C to +65°C

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.









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

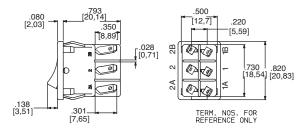
www.ckswitches.com

DM Series Miniature Illuminated Power Rocker Switches

SWITCH FUNCTION

			SWITCH F	UNCTION	CONNECTED	TERMINALS	
			POS. 1	POS. 2	POS. 1	POS. 2	
NO. POLES	MODEL NO.	AMP RATING*	4		4		SCHEMATIC
SP	DM14 DM54	3 10	ON	OFF	1-1A	OPEN	SPST 1 1A 4
DP	DM24 DM64	3 10	ON	OFF	1-1A, 2-2A	OPEN	DPST 1A 2A 4

DPDT



Actuator shown in pos. 1 – 'ON' position. SPST MODELS (DM14 & DM54) OMIT TERMINALS 2 & 2A.

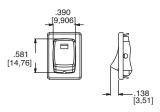
Part number shown: DM24J72S205Q3

^{*} RATINGS: see page G-69.



ACTUATOR

ROCKER WITH COLORLESS LED WINDOW

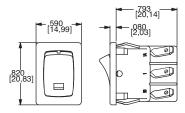


OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE

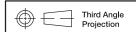
NOTE: Other colors available, consult Customer Service Center.

HOUSING STYLE/COLOR

SNAP-IN, BLACK



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

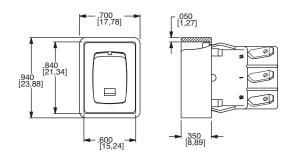




DM Series Miniature Illuminated Power Rocker Switches

HOUSING STYLE/COLOR

ACTUATOR GUARD, BLACK





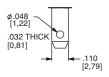
'S2' & 'G2' housing style

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		
.030049	0.756	0.764		
(0,76) (1,24)	(19,20)	(19,41)		
.049079	0.764	0.780		
(1,24) (2,01)	(19,41)	(19,81)		
.079118 (2,01) (3,00)	.780 (19,81)	n/a		

TERMINATIONS

QUICK CONNECT



CONTACT MATERIAL

OPTION CODE	CONTACT AND TERMINAL MATERIAL		RATINGS
Q	SILVER 1,2	POWER	DM14 and DM24 Models: 3 AMPS @ 125 V AC; 2 AMPS @ 250 V AC. DM54 and DM64 Models: 10 AMPS @ 125 V AC; 5 AMPS @ 250 V AC.

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

MOVABLE CONTACTS: DM14 and DM24 models: Copper, silver plated. DM54 and DM64 models: Coin silver, silver plated.

 2 STATIONARY CONTACTS & TERMINALS: Copper or brass, silver plated.

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



LED COLOR

						RECOMMEN	DED RESISTOR	@ VOLTAGE
OPTION CODE	LED COLOR	FORWARD V _{FD}	CURRENT L _{LED}	REVERSE V _R	INTENSITY M _{CD}	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

G-71

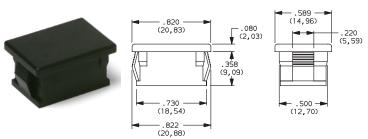
Third Angle

DM Series

Miniature Illuminated Power Rocker Switches

AVAILABLE HARDWARE

Blank Insert



Recessed Bracket



PART NO.

057190200

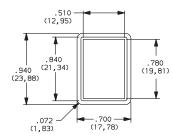
Material: Zinc nylon 6/6 Finish: Matte

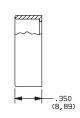
PART NO.

599D02000

Material: 6/6 Nylon Finish: Matte

Actuator Guard





PART NO.

104C22000

Material: PBT thermoplastic Finish: Matte





DF Series Power Rocker Switches



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.

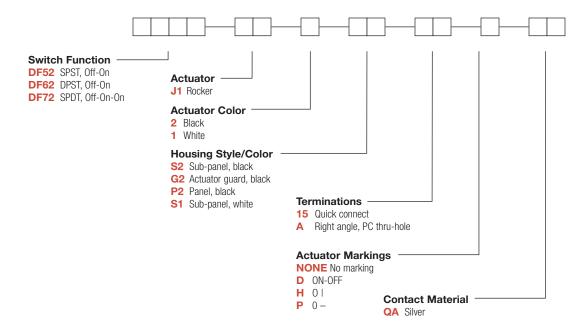
CONTACTS: Fine silver, silver plated. TERMINALS: Copper, silver plated.

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.





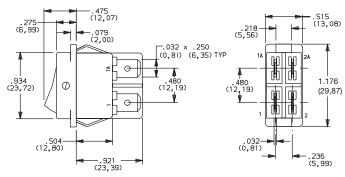




DF Series Power Rocker Switches

		SWITCH F	UNCTION	CONNECTED	TERMINALS	
		POS. 1	POS. 2	POS. 1	POS. 2	
NO. POLES	MODEL NO.	4		4		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



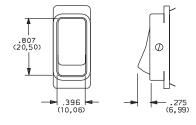
Actuator shown in Pos. 1

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 CTU'us

ACTUATOR ACTUATOR COLOR

J1 ROCKER



OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE

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



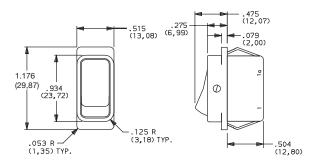




DF Series Power Rocker Switches

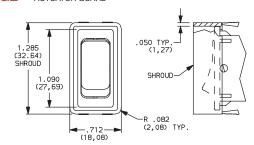
HOUSING STYLE/COLOR \neg - ω - ω

S SUB-PANEL



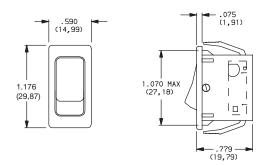
NOTE: DF52 & DF62 models only.

G2 ACTUATOR GUARD



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

PANEL



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

QUICK CONNECT

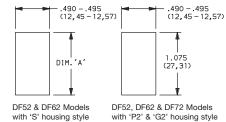
15

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

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

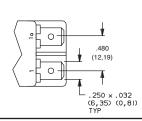
PANEL MOUNTING

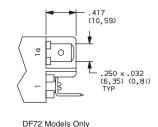
PANEL THICKNESS	DIM 'A'
.029048	1.021
(0,74) (1,22)	(25,93)
.048078	1.029
(1,22) (1,98)	(26,14)
.078117	1.045
(1,98) (2,97)	(26,54)
.075140	1.075
(1,91) (3,56)	(27,31)



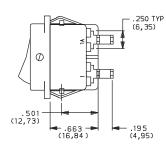
TERMINATIONS





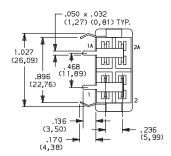


RIGHT ANGLE, PC THRU-HOLE



Actuator shown in Pos. 1

NOTE: DF52 and DF62 Models Only



.896 (22**,**76) V .501 (12,73) .195 (4**,**95)

PC MOUNTING

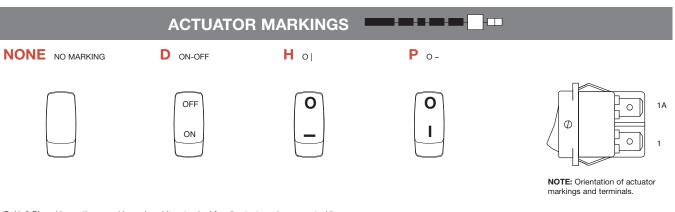


Dimensions are shown: Inches (mm)





DF Series Power Rocker Switches



'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 1,2 POW		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)

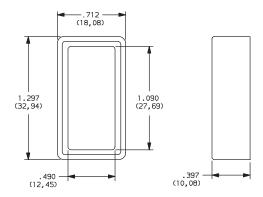
^{*} Note: See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.

All models callus



AVAILABLE HARDWARE

Actuator Guard



PART NO.

285B02000

Material: Nylon 6/6 Finish: Matte







¹ CONTACTS: Fine silver, silver plated.

² TERMINALS: Copper, silver plated.

CR Series Round Single Pole Specialty Rocker Switches

Features/Benefits

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

Typical Applications

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





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

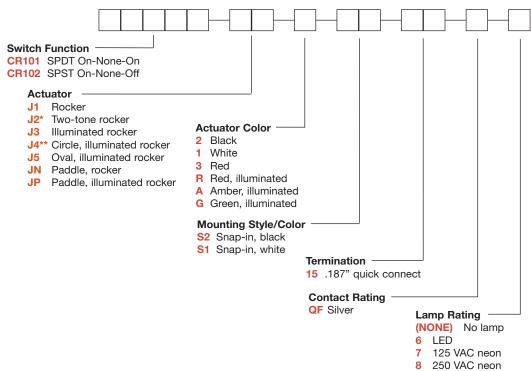
Materials

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 AgSn02ln03. 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.

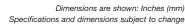


G-77

Refer to table on page G-79 for actuator options.









CR Series

Round Single Pole Specialty Rocker Switches

SWITCH FUNCTION

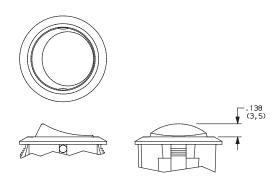
		S	WITCH FUNCTIO	N	CON	INECTED TERMIN	ALS		
		Pos. 1	Pos. 2	Pos. 3	Pos. 1	Pos. 2	Pos. 3		
				4					
NO. POLES	MODEL NO.	C&K r	narking on opposi	te side	C&K ma	arking on opposite :	side	SCHEMATIC	
	CR101	ON	NONE	ON	2-3		2-1	1 2 3	
						N/A		OR For 7 & 8	
SP	CR102	ON	NONE	OFF				Illuminated Versions	
								1 2 5	

ACTUATOR -----

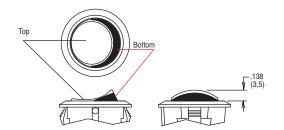
J2 TWO-TONE ROCKER

J1 ROCKER

J3 ILLUMINATED ROCKER



 $\mbox{NOTE:}\ \mbox{J3}$ actuator available with the combination of 7 & 8 lamp ratings and CR102 switch function only.



Third Angle Projection

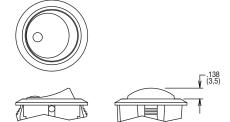




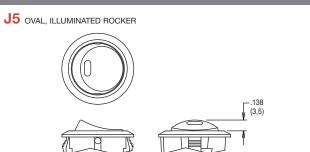
CR Series Round Single Pole Specialty Rocker Switches



J4 CIRCLE, ILLUMINATED ROCKER



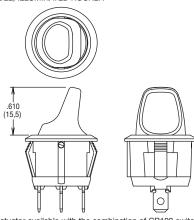
NOTE: Available with the combination of CR102 switch function and 7 & 8 lamp ratings only.



NOTE: Available with the combination of CR102 switch function and 6 lamp rating only.

JN PADDLE, ROCKER

JP PADDLE, ILLUMINATED ROCKER

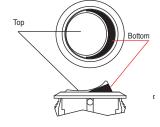


NOTE: JP actuator available with the combination of CR102 switch function and 7 & 8 lamp ratings only.

ACTUATOR COLOR

ACTUATOR	OPTION CODE	ACTUATOR COLOR
	2	BLACK
J1	1	WHITE
	3	RED
10 14	R	RED, ILLUMINATED
J3, J4	Α	AMBER, ILLUMINATED
J5, JP	G	GREEN, ILLUMINATED

ACTUATOR	OPTION CODE	ACTUATOR COLOR	
		TOP	воттом
	1	WHITE	RED
J2	2	WHITE	BLACK
02	3	RED	WHITE
	4	BLACK	WHTE
	5	BLACK	RED



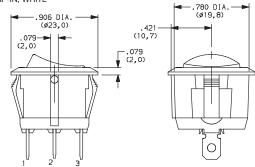
J2 actuator only

MOUNTING STYLE/COLOR

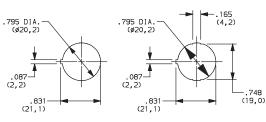
G-79

\$2 SNAP-IN, BLACK

\$1 SNAP-IN, WHITE

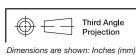


PANEL MOUNTING



Panel thickness: 2.0 - 3.0 mm

Panel thickness: 0.7 - 3.0 mm



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



tions and dimensions subject to char-

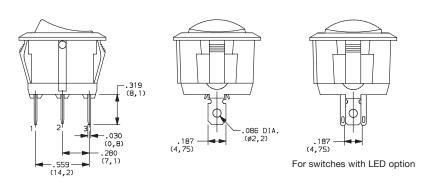
CR Series

Round Single Pole Specialty Rocker Switches

TERMINATION

T-0-0

15 .187" QUICK CONNECT



CONTACT MATERIAL

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

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

LAMP RATING

(NONE) NO LAMP

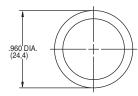
 $6 \; \text{LED RATING @ 10 mA V}_{\text{f}}\text{=}1.85\text{V}$

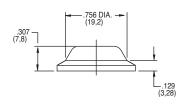
7 125 VAC 33kΩ NEON

8 250 VAC 150kΩ NEON

ACCESSORIES

377C00000 IP65 SPLASH PROOF RUBBER BOOT











SW Series Rocker Switches

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

CONTACT RATING: 6.5 Amps @ 125 VAC ELECTRICAL LIFE: 6,000 cycles at full load. INITIAL CONTACT RESISTANCE: 100m Ω min. INSULATION RESISTANCE: 100M Ω min. DIELECTRIC STRENGTH: 1,500 VAC (50-60 Hz) OPERATING FORCE: ON_OFF: 250 \pm 100 gf

OFF_ON: 700 ± 250 gf

PACKAGING: 300 pieces per bag (5 trays)

2,400 pieces per box

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.

Environmental

OPERATING TEMPERATURE: 0°C to 65°C

PART NUMBER	HOUSING COLOR	
SW-13A65N-A01	White	
SW-13A65N-A01 BK	Black	

