industrial equipment portable tools pumps & motors

telecom

test equipment













Rockers Product Selection Guide

Rocker			CONTROL CONTRO				
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-4	G-26	G-40	G-46	G-52	G-57	G-61

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





Rockers Product Selection Guide

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





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G-3

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



FL 115

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 Center,

J91 Lever with frame, snap-in

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 **B** Gold 7103 SP On-Off-On .531 long rocker J1 Р Gold, matte tin 7105 SP Mom.-Off-Mom. **Terminations** J2 Q Silver Right angle, PC thru-hole **7107** SP On-Off-Mom. .906" long rocker J3 Silver, matte-tin S AV2 Vertical right angle, PC thru-hole 7108 SP On-None-Mom. **J10** 1.318" long rocker Gold over silver C PC Thru-hole 7109 SP None-On-Mom. J11 Rocker with frame Gold over silver, matte-tin Z Solder lug **7201** DP On-None-On J15 Rocker, snap-in **A3** Right angle, snap-in, PC thru-hole **7203** DP On-Off-On J16 Rocker with frame, snap-in AV3 Vertical right angle, **7205** DP Mom.-Off-Mom. J19 Rocker with frame Seal snap-in, PC thru-hole **7207** DP On-Off-Mom. J21 Lever with frame **E** Epoxy AW3 Right angle, extended, PC thru-hole 7208 DP On-None-Mom. Epoxy potted base **J25** Lever, snap-in **V2** .555" high, V-bracket **7211** DP On-On-On J26 Lever with frame, snap-in **7213** DP On-On-Mom. **V3** .460" high, V-bracket J37 Rocker with frame **V**4 .630" high, V-bracket **7215** DP Mom.-On-Mom. **Actuator Color** J50 Rocker **V**5 Vertical right angle, PC thru-hole 7301 3P On-None-On Frame Color 2 Black J51 Rocker with frame **V**6 .460" high, V-bracket **7303** 3P On-Off-On 2 Black 1 White J52 Rocker with frame for .630" high, V-bracket **V7** 7401 4P On-None-On 3 Red NONE No frame color required LED, snap-in .953" high, V-bracket 7405 4P Mom.-Off-Mom. **V**8 1.150" high, V-bracket **V**9 **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 V51 Vertical right angle, snap-in available, see pages G-5 J37 Actuators) LED, snap-in and G-6. V61 .460" high, V-bracket, snap-in 2 Black J90 Lever W .750" long, wire wrap White



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

.425" long, wire wrap 1.305" long, wire wrap

Z3 Quick connect

W3

W5

G

7000 Series

Miniature Rocker & Lever Handle Switches

SWITCH FUNCTION SWITCH FUNCTION CONNECTED TERMINALS POS. 1 POS. 2 POS. 3 POS. 1 POS. 3 POS. 2 UL** NO. POLES MODEL C&K marking on opposite side C&K marking on opposite side MODEL NO. **SCHEMATIC** 7101 U11 ON NONE ON N/A 7103 **U13** ON 2 (COMM) 7105 **U15** MOM OFF MOM. 2-3 **OPEN** 2-1 SP **U17** 7107 ON OFF MOM 7108 U18 ON NONE MOM. N/A SPDT 7109 **U19** MOM. 2-3 **SPDT** (6, 99) .080 TYP. (2,03) TERM. WIDTH 25° P0S 3 .185 TYP. (4,70) P05 2 .937 (23,80) P05 1 EPOXY SEAL .155 TYP. (3,94) .270 (6,86) CASE WIDTH .370 (9,40) .094 DIA. (2,390) TYP. Terminal Nos. Part number shown: 7101J1ZQE2 For Reference Only 7201 **U21** ON NONE ON N/A 7203 **U23** OFF ON ON 7205 **U25** MOM OFF MOM. OPEN **U27** 7207 MOM. 2-3,5-6 2-1,5-4 2 (COMM) DP 7208 **U28** ON NONE MOM. N/A 7211* U211* ON ON ON 7213* U213* ON ON MOM. 2-3,5-4 DPDT 7215* U215* MOM MOM. . 275 (6, 99) **DPDT** .190 .040 (1,02) C&K MARKING ON OPPOSITE SIDE Ж .030 TYP. (0,76) 25° 3 .500 (12,70) 5 3 1 1,156 (29,36) P05 3 .185 TYP. (4,70) P05 2 .937 (23,80) P05 1 EPOXY SEAL .155 TYP. (3,94) .080 TYP .094 DIA. (2,390) TYP. (2,03) TERM. WIDTH Terminal Nos.

MOM. = Momentary

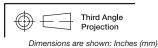
** U11 through U413 model nos. e with all options when ordered with G, Q, R or S contact material.

* Wiring for 3-way switch

For Reference Only



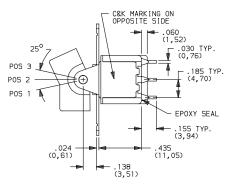
Part number shown: 7201J1ZQE2

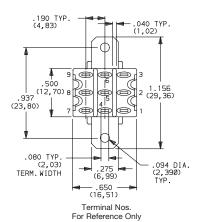


SWITCH FUNCTION

		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 marl	king on opp	osite side	C&K	marking on opposit	te 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 0 9
	7303	U33	ON	OFF	ON	2-3,3-0,0-9	OPEN	2-1,3-4,8-7	3PDT

3PDT

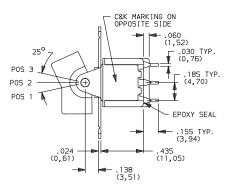




Part number shown: 7301J1ZQE2

	7401	U41	ON	NONE	ON		N/A		
4P	7405	U45	MOM.	OFF	мом.	2-3,5-6,8-9,11-12	OPEN	2-1,5-4,8-7,11-10	1 • 2 5 • (COMM) • 8 11 • 12
	7411*	U411*	ON	ON	NO		2-3,5-4,8-9,11-10		4PDT

4PDT



.190 TYP (4,83) .040 TYP. (1,02) 12 🔘 **₽**}3 .500 (12,70) 937 (23,80) .094 DIA. (2,390) TYP. .080 TYP. (2,03) TERM. WIDTH . 275 (6,99) - .850 (21,59) Terminal Nos

Part number shown: 7401J1ZQE2 For Reference Only

MOM. = Momentary

** U11 through U411 model nos. ${}_{\boldsymbol{c}}$ $\boldsymbol{\mathbf{N}}$ with all options when ordered with G, Q, R or S contact material.

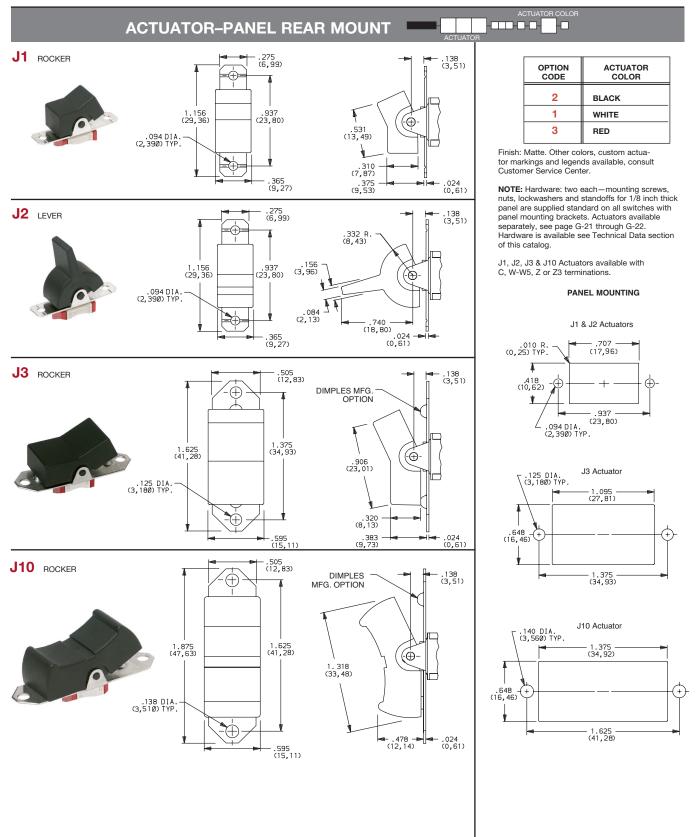
* Wiring for 3-way switch: See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.



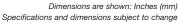


7000 Series

Miniature Rocker & Lever Handle Switches









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

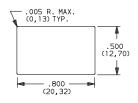
OPTION CODE	FRAME COLOR
2	BLACK
NONE	No Frame Color (J15 or J25options)
1	WHITE

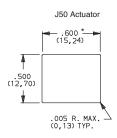
Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

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

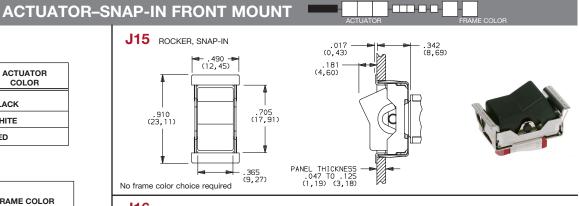
PANEL MOUNTING

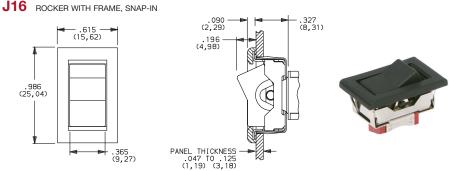
J15, J16, J25 & J26 Actuators

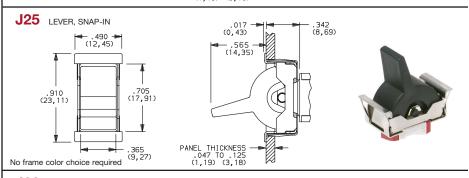


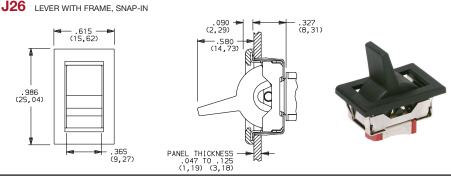


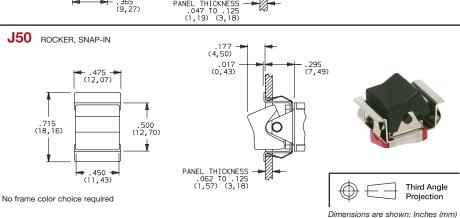
 * For J50: Increase this dimension to .620/.625 (15,75/15,88) for .091/.125 (2,31/3,18) thk. panels.





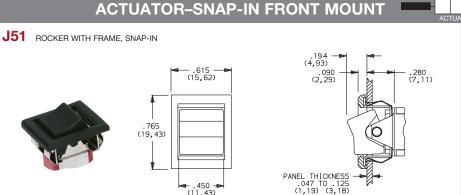


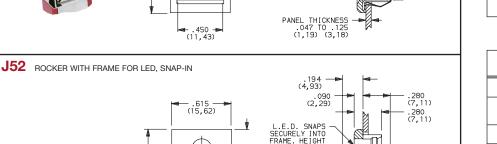




Specifications and dimensions subject to change

15 Jan 21

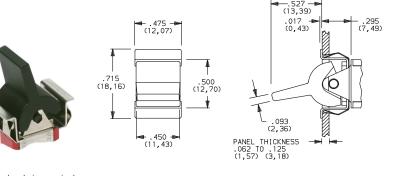




L.E.D. SNAPS SECURELY INTO FRAME. HEIGHT DEPENDS ON L.E.D. USED. (5,03) .520 (13,21) 1.100 (27,94) PANEL THICKNESS .047 TO .125 (1,19) (3,18) .450 + (11,43) LED not included.

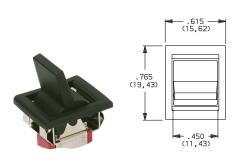
J60 LEVER, SNAP-IN

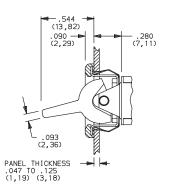
For LED information, see page G-24.



No frame color choice required

J61 LEVER WITH FRAME, SNAP-IN





OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE
3	RED

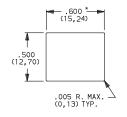
OPTION CODE	FRAME COLOR
2	BLACK
NONE	No Frame Color (J15 or J25 options)
1	WHITE

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

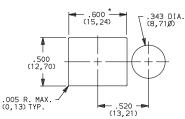
NOTE: Actuators & frames available separately, see pages G-21 through G-22. J51, J52, J60 & J61 Actuators available with 71XX, 72XX, U1XX & U2XX models and C, W-W5, Z and Z3 terminations.

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.





ACTUATOR-SNAP-IN FRONT MOUNT

OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE
3	RED

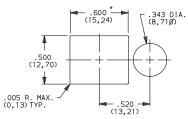
OPTION CODE	FRAME COLOR
2	BLACK
NONE	No Frame Color (J90 options)
1	WHITE

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

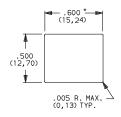
NOTE: Actuators & frames available separately, see pages G-21 through G-22. J62, J90 & J91
Actuators available with 71XX, 72XX, U1XX &
U2XX models and C, W-W5, Z & Z3 terminations.

PANEL MOUNTING

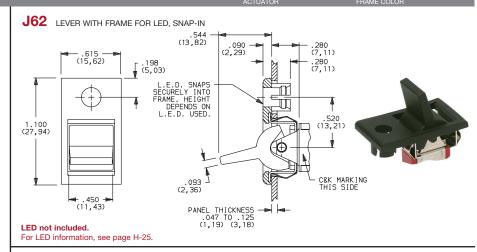
J62 Actuator

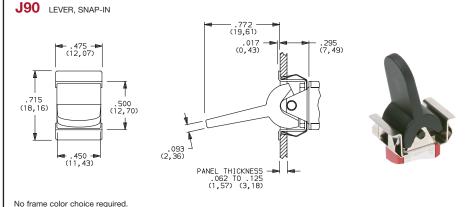


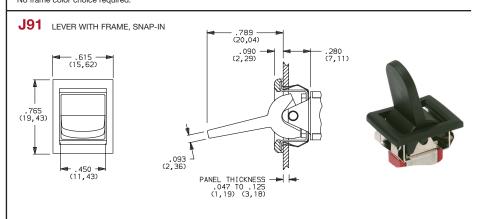
J90, J91 & J93 Actuators



* 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.





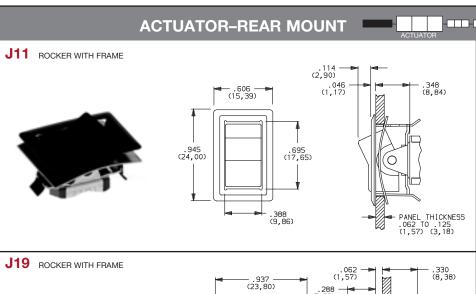


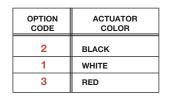


G-10

G

7000 Series Miniature Rocker & Lever Handle Switches

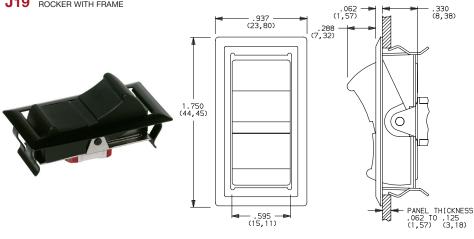




OPTION CODE	FRAME COLOR
2	BLACK
1	WHITE

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

NOTE: Actuators & frames available separately, see pages G-21 through G-22. J11, J19, J21 & J37 Actuators available with C, W-W5, Z & Z3 terminations. J37 offered with Black Frame (2 color option) only.



PANEL MOUNTING

J11 & J21 Actuators

.348 (8,84)

PANEL THICKNESS .062 TO .125 (1,57) (3,18)

(7,95)

PANEL THICKNESS .062 TO .125 (1,57) (3,18)

.046

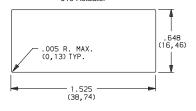
.695 (17,65)

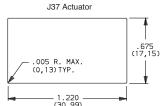
- .524 -(13,31)

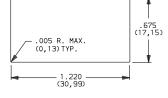




J19 Actuator

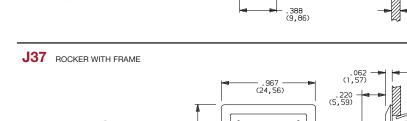








Specifications and dimensions subject to change



1.474 (37,44)

.945 (24,00)



J21 LEVER WITH FRAME

0

BLACK

1	WHITE
3	RED

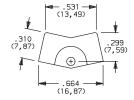
2

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.

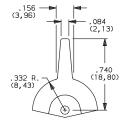


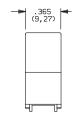






J2 LEVER







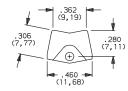
J3 ROCKER







J50 ROCKER









NOTE: Some permissible actuator/termination combinations may lack clearance between

BLACK

WHITE

RED Finish: Matte. Other colors, custom actuator

markings and legends available, consult

OPTION CODE

> 1 3

only) & V2-V61 terminations.

Customer Service Center

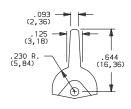
Miniature Rocker & Lever Handle Switches

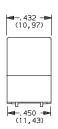
ACTUATOR-PC MOUNT

J60 LEVER

7000 Series



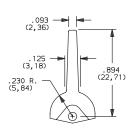


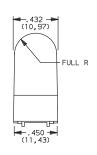


J90 LEVER

Z SOLDER LUG

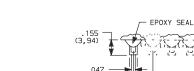






TERMINATIONS

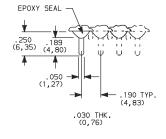
C PC THRU-HOLE

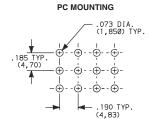


(2.03) .190 TYP. (4,83) .030 THK.

SPDT thru 4PDT

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

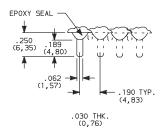




SPDT thru 4PDT

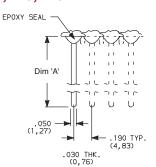
NOTE: Available actuators, see pages G-7 through G-13.

Z3 QUICK CONNECT



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, SPDT thru 4PDT page G-22.

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.



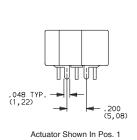
Dimensions are shown: Inches (mm) Specifications and dimensions subject to change

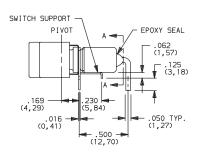


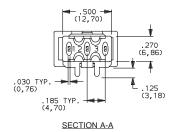
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TERMINATIONS

A RIGHT ANGLE, PC THRU-HOLE



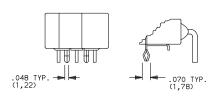




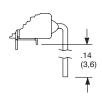


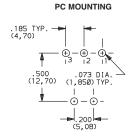
7101J1ABE2 Horizontal Actuation **SPDT**

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



AW3 RIGHT ANGLE, EXTENDED, PC THRU-HOLE

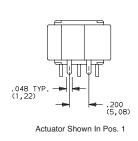


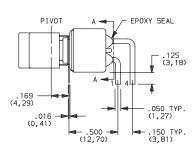


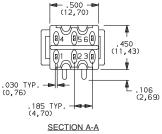
Not available with I seal option. Available actuators, see pages G-6 and G-12. Terminal bend radii and lead-in manufacturing option.

NOTE: PC pattern must clear switch support leg.

A RIGHT ANGLE, PC THRU-HOLE



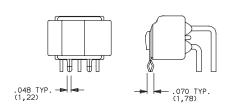




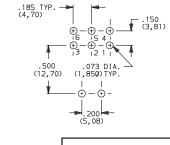


7201J1ABE2 Horizontal Actuation **DPDT**

A3 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



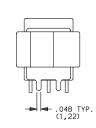


TERMINATIONS

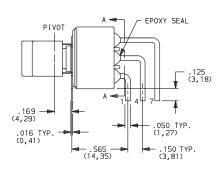
A RIGHT ANGLE, PC THRU-HOLE

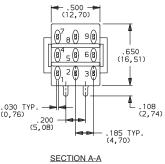


7301J1ABE2 Horizontal Actuation 3PDT

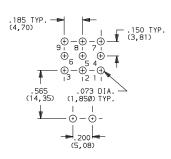


Actuator Shown In Pos. 1





PC MOUNTING



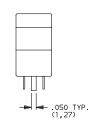
Not available with I seal option. Available actuators, see pages G-6 and G-12. Terminal bend radii and lead-in manufacturing option.

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

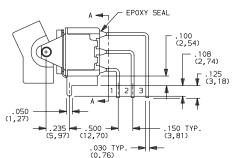


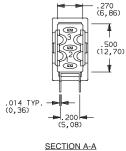
7101J1AV2BE2 Vertical Actuation

SPDT



Actuator Shown In Pos. 1





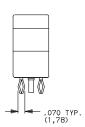
PC MOUNTING

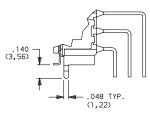
 \oplus -⊕

 $\odot - \odot -$

.150 TYP. (3,81)

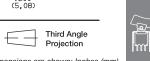
AV3 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150" PITCH





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

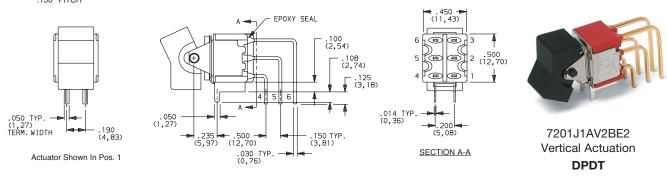




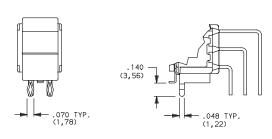


TERMINATIONS

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



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

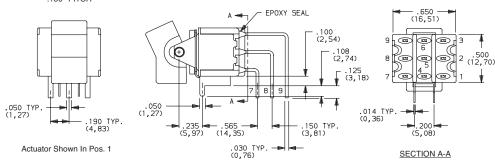


Not available with I seal option. Available actuators, see pages G-6 and G-12. Terminal bend radii and lead-in manufacturing option.

-3⊕-6⊕-.150 TYP. €⊕-¸⊕-⊕−ਁ⊕ .073 DIA. (1,850) TYP. \odot – \odot -ا_{. 200} ا (5, 08)

PC MOUNTING

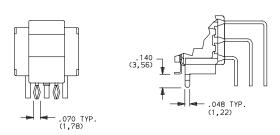
AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH





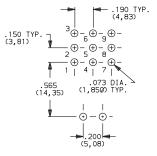
7301J1AV2BE2 Vertical Actuation 3PDT

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



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

PC MOUNTING

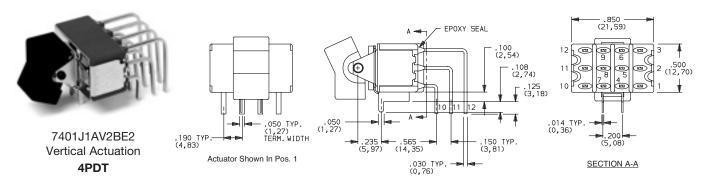




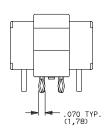


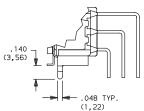
TERMINATIONS

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



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





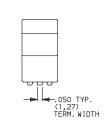
-₆⊕-₉⊕-₁₂⊕- $-2 \oplus -5 \oplus -8 \oplus -11 \oplus \odot - \odot -$ 200 -(5,08) Not available with I seal option. Available actuators, see pages G-6 and G-12.

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

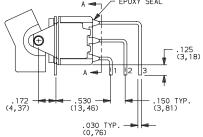
Terminal bend radii and lead-in manufacturing option.

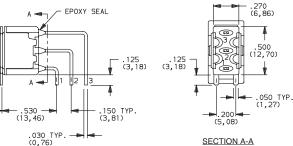






Actuator Shown In Pos. 1

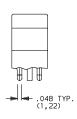


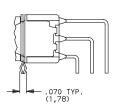


PC MOUNTING

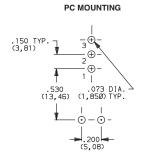
.190 TYP. (4,83)

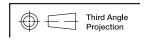
V51 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150" PITCH





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

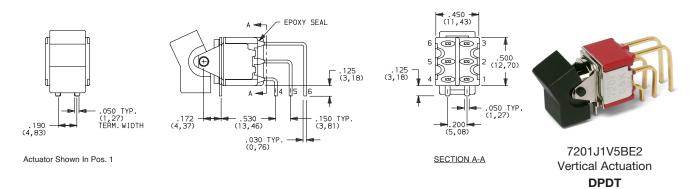




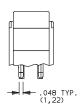


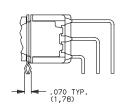
TERMINATIONS

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

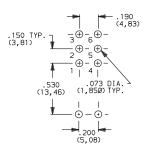


V51 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150" PITCH





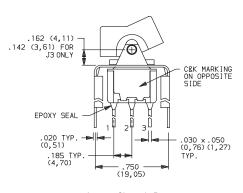
PC MOUNTING



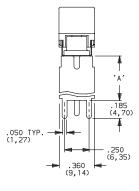
Not available with I seal option. Available actuators, see pages G-6 and G-12. Terminal bend radii and lead-in manufacturing option.

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

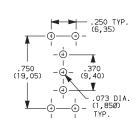
V61 VERTICAL MOUNT, V-BRACKET, SNAP-IN



Actuator Shown In Pos. 1



PC MOUNTING





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)

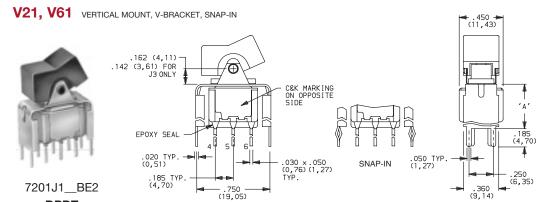




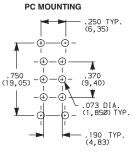


TERMINATIONS ----





Actuator Shown In Pos. 1



OPTION CODE DIM 'A'

V2, V21 .555 (14,10)

V6, V61 .460 (11,68)

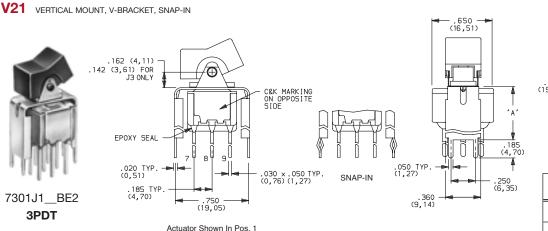
V7 .630 (16,00)

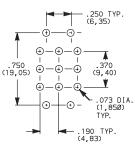
V8 .953 (24,21)

DPDT

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

V2, V7, V8 VERTICAL MOUNT, V-BRACKET





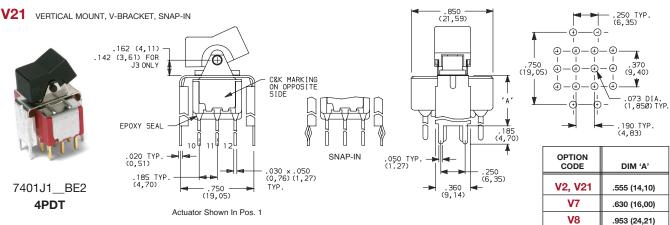
PC MOUNTING

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



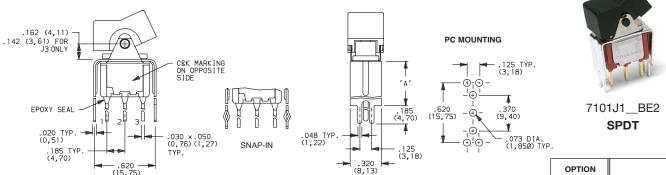
Not available with I seal option. Available actuators, see pages G-6 and G-12.





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. OPTION CODE DIM 'A'

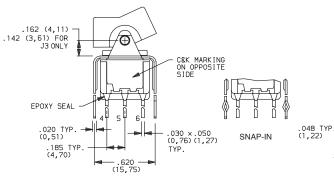
V3, V31 .460 (11,68)

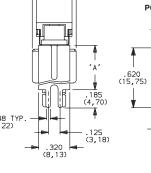
V4 .630 (16,00)

V9 1.150 (29,21)

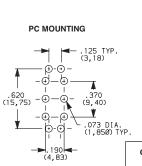
V3, V4, V9 VERTICAL MOUNT, V-BRACKET

V31 VERTICAL MOUNT, V-BRACKET, SNAP-IN





⊢ .450 + (11,43)





7201J1_BE2 **DPDT**

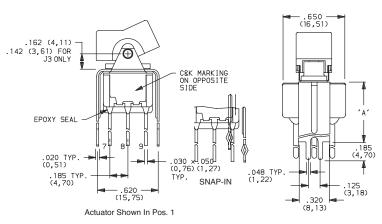
OPTION CODE	DIM 'A'
V3, V31	.460 (11,68)
V 4	.630 (16,00)
V 9	1.150 (29,21)

Actuator Shown In Pos. 1

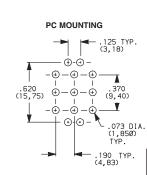
Not available with I seal option.

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

V4, V9 VERTICAL MOUNT, V-BRACKET



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





7301J1__BE2 **3PDT**

OPTION CODE	DIM 'A'		
V4	.630 (16,00)		
V 9	1.150 (29,21)		



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

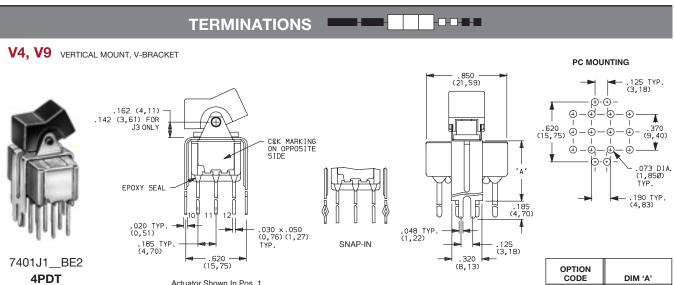


Specifications and dimensions

G

7000 Series

Miniature Rocker & Lever Handle Switches



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	OII.VED 4.5	SILVER 5	POWER	5 AMPS @ 120 V AC OR 28 V DC; 2 AMPS @ 250 V AC.	
S	SILVER ^{4,5}	MATTE-TIN ⁶	POWER		
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	SOLD GILLION	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.
- 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 over nickel 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.

- U11-U415 model numbers $\ c$ 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.

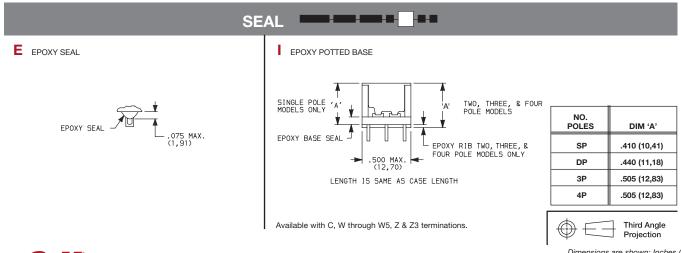
NOTE: Any models supplied with Q, B, G S, P & R contact material are RoHS compliant.

V4

V9

.630 (16,00)

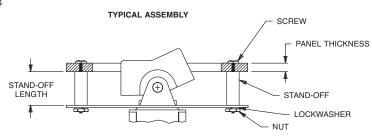
1.150 (29,21)



AVAILABLE HARDWARE

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

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



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)	

J3 & J37 Actuators

J10 actuators

PART NO.	PANEL THK.	STANDOFF LENGTH	
770703000	1/8 IN. (3.18)	.233 (5,92)	

MATERIAL

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



PART NO. 431D01000 WHITE 431D02263 BLACK 431D03000 RED Material: Nylon Finish: Matte Finish: Matte

J50, J51 & J52 Actuators J60, J61 & J62 Actuators



PART NO. 775A01000 WHITE 775A02263 BLACK 775A03000 RED Material: Nylon

PART NO. 598101000 WHITE 613802263 **BLACK** 598103000 RED Material: Nylon

Finish: Matte

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



Finish: Matte

Finish: Matte

15 Jan 21 www.ckswitches.com G-22

AVAILABLE HARDWARE J90 & J91 Actuators J10 & J19 Actuators Fits Z3 Termination female connector PART NO. PART NO. 598001000 WHITE 769501000 WHITE 598002263 BLACK 769502263 BLACK PART NO. 598003000 RED 769503000 RED 530100000 Material: Nylon Material: Nylon Available in loose pieces. Finish: Matte Finish: Matte Frame for J11 & J21 Actuators Frame for J16 & J26 Actuators Frame for J51, J61 & J91 Actuators PART NO. PART NO. PART NO. 459101000 WHITE 615601000 WHITE 764500746 BLACK ENAMEL BLACK 459102000 615602263 BLACK 764500747 WHITE ENAMEL 459103000 RED 615603000 RED 764601106 RETAINING SPRING Material: Nylon Material: Nylon Finish: Matte Finish: Matte Material: Spring Steel Frame for J37 Actuator Frame for J52 & J62 Actuators Frame for J19 Actuator

PART NO.

781000746 BLACK ENAMEL 781000747 WHITE ENAMEL

Material: Spring Steel

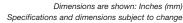


PART NO. 445400746 BLACK ENAMEL Material: Spring Steel

PART NO. 613301000 WHITE 613302263 BLACK 613303000 RED

Material: Nylon Finish: Matte







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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.

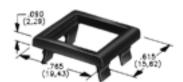
PART NO. 452902263 PART NO. 452702263 PART NO.

PART NO.

452802263

452602263 BLACK

J50, J60 & J90 Actuators



.047" (1,19) PANEL THK.

.062" (1,57) PANEL THK.

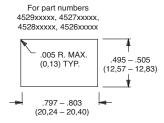
.090" (2,29) PANEL THK.

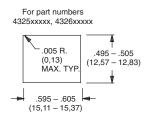
.125" (3,18) PANEL THK.

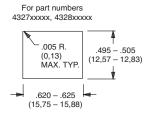
PART NO. 432502263 PART NO. 432602263 PART NO. 432702263 PART NO.

432802263 BLACK

PANEL MOUNTING







Third Angle Projection

7000 Series

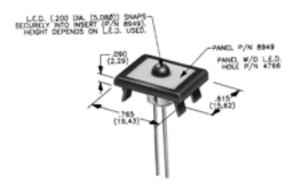
Miniature Rocker & Lever Handle Switches

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.

PART NO.

894902000

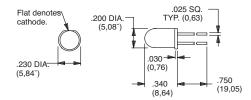
476602000 BLACK

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

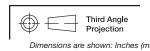
LED INFORMATION

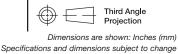
Process Information: Soldering to LED leads must be completed within 5 seconds at 500° F (260°C) maximum.

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



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





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.

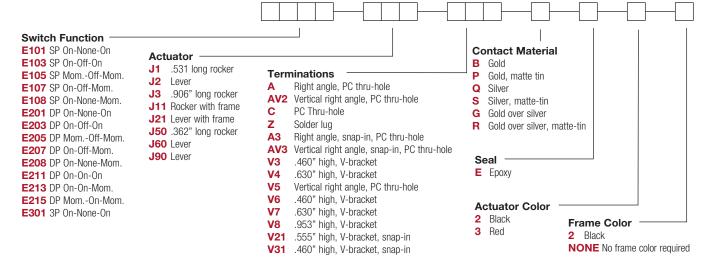
HARDWARE: Nut, Screw & Lockwasher: Stainless steel.
Standoff: Nylon standard, aluminum available, consult Customer Service Center.

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

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

Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages G-26 through G-38. For additional options not shown in catalog, consult Customer Service Center. All models are process sealed to withstand machine soldering temperatures and pressure wash cleaning methods.



Metal Frame Color (J11, J21 Actuators)

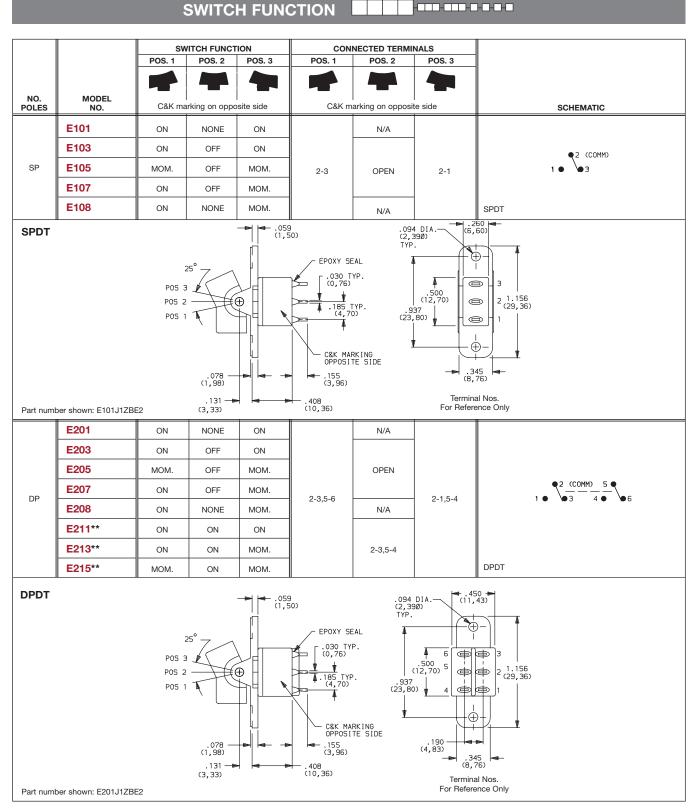
2 Black



G

E Series

Sealed Miniature Rocker and Lever Handle Switches

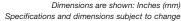


MOM. = Momentary All models callus ** Wiring for 3-way switch, Hardware available seperately, see Technical Data section of this catalog.

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







E Series

Sealed Miniature Rocker and Lever Handle Switches

----**SWITCH FUNCTION**

		SW	VITCH FUNCT	ION	CON	NECTED TERMI	NAIS	
		POS. 1	POS. 2	POS. 3	POS. 1	POS. 2	POS. 3	
NO.	MODEL		4	4		4	4	
POLES	NO.	C&K ma	arking on oppo	site side	C&K m	arking on opposi	te side	SCHEMATIC
3P	E301	ON	NONE	ON	2-3,5-6,8-9	N/A	2-1,5-4,8-7	3PDT 2
3PDT	per shown: E301J1ZBE	25 P0S 3 P0S 2 P0S 1	.078 (1,98) .131 (3,33)	.059	.185 T (4,70) C&K MAF OPPOSITION: (3,96)	P	34! (8,7) 1500 12,700 12,700 10, 18	2 1.156 (29,36)

MOM. = Momentary

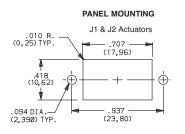
All models calls with all options when ordered with G, Q, R and S contact material.

ACTUATOR-PANEL REAR MOUNT

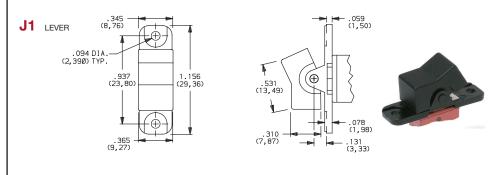
OPTION CODE	ACTUATOR COLOR
2	BLACK
3	RED

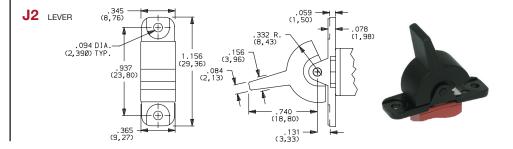
Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

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 separately, see Technical Data section of this catalog. J1, J2 actuators available with C, Z or Z3 terminations.



15 Jan 21







Third Angle Projection

www.ckswitches.com

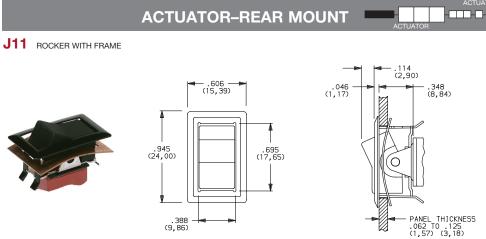
Dimensions are shown: Inches (mm) Specifications and dimensions subject to change

G-28

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

E Series

Sealed Miniature Rocker and Lever Handle Switches



NOTE: This option has reduced anti-static capability

OPTION CODE FRAME COLOR BLACK

ACTUATOR

BLACK

RED

OPTION

CODE

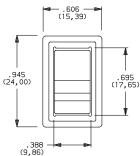
3

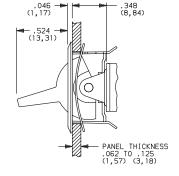
Actuator finish: Matte, frame finish: gloss. Other colors, custom actuator markings and legends available, consult Customer Service Center.

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. J11 & J21 actuators available with C, Z & Z3 terminations.

J21 LEVER WITH FRAME

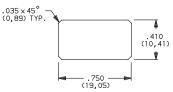






NOTE: This option has reduced anti-static capability.

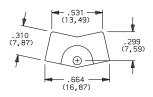
PANEL MOUNTING



ACTUATOR-PC MOUNT

J1 ROCKER



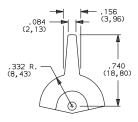


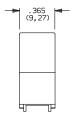


OPTION CODE	ACTUATOR COLOR
2	BLACK
3	RED

J2 LEVER

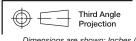






Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

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 o-ring actuator seal standard. Actuators available separately, see page G-36. Hardware available seperately, see Technical Data section of this catalog. J1, J2 actuators available with A, A3, AV2, AV3, V2-V61 terminations.





Sealed Miniature Rocker and Lever Handle Switches

ACTUATOR-PC MOUNT

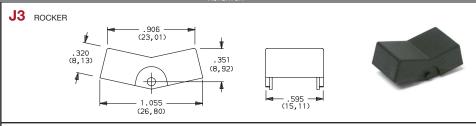
OPTION CODE	ACTUATOR COLOR
2	BLACK
3	RED

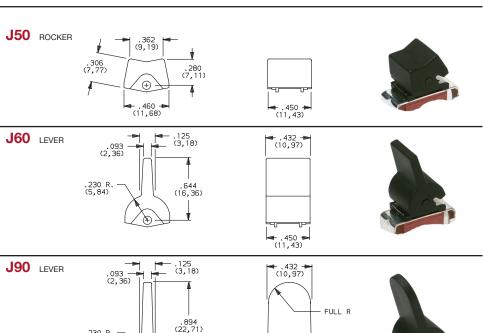
Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

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

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.

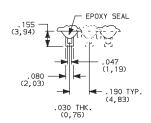




.450

TERMINATIONS

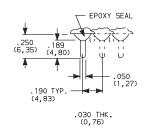
Z SOLDER LUG



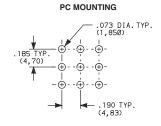
SPDT thru 3PDT

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

C PC THRU-HOLE



SPDT thru 3PDT





Third Angle Projection

Dimensions are shown: Inches (mm)



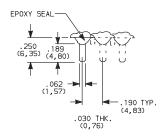
Specifications and dimensions subject to change

E Series

Sealed Miniature Rocker and Lever Handle Switches

TERMINATIONS

Z3 QUICK CONNECT



SPDT thru 3PDT

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.

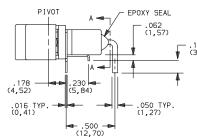
A RIGHT ANGLE, PC THRU-HOLE

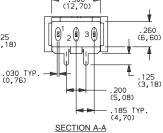


E101J1ABE2 Horizontal Actuation



Actuator Shown In Pos. 1

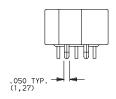




PC MOUNTING

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.



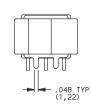
- ⊕ -

NOTE: PC mounting pattern must clear switch support leg.

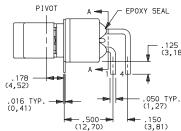
A RIGHT ANGLE, PC THRU-HOLE

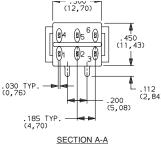


E201J1ABE2 Horizontal Actuation



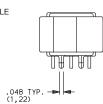
Actuator Shown In Pos. 1



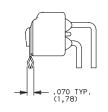


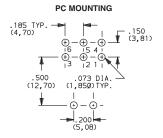
DPDT

A3 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.

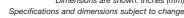






Dimensions are shown: Inches (mm)

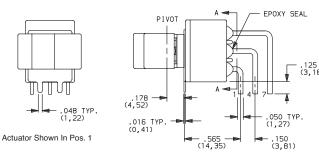


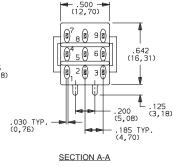


Actuator Shown In Pos. 1

TERMINATIONS

A RIGHT ANGLE, PC THRU-HOLE





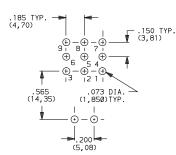
Sealed Miniature Rocker and Lever Handle Switches



E Series

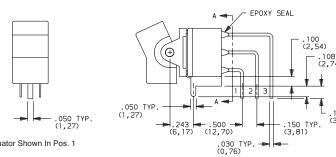
E301J1ABE2 Horizontal Actuation 3PDT

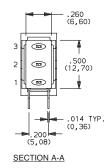
PC MOUNTING



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

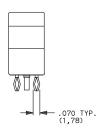


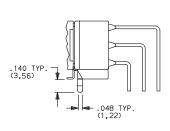




Vertical Actuation **SPDT**

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





PC MOUNTING .150 TYP (3,81) ⊕-.500 .073 DIA. (12,70) (1,85Ø) TYP. · · · · · · 1.200 (5,08)

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





E Series

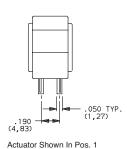
Sealed Miniature Rocker and Lever Handle Switches

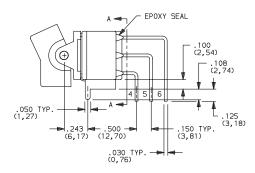
TERMINATIONS

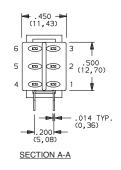
AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE,



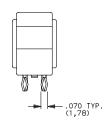
E201J1AV2BE2 Vertical Actuation **DPDT**

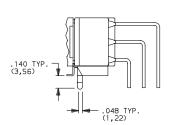


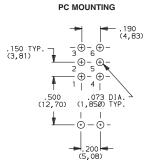




AV3 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150" PITCH





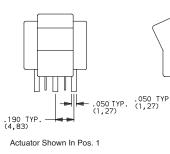


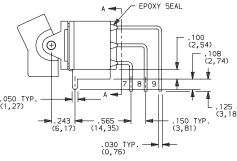
NOTE: Terminal bend radii and lead-in manufacturing option. Available actuators, see pages G-27 thru G-29.

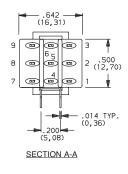
AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH



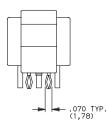
E301J1AV2BE2 Vertical Actuation 3PDT

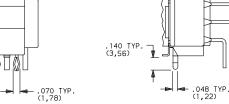


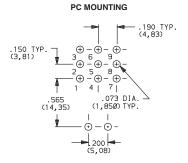




AV3 VERTICAL RIGHT ANGLE, SNAP-IN, PC THRU-HOLE, .150" PITCH







Third Angle Projection

Dimensions are shown: Inches (mm)

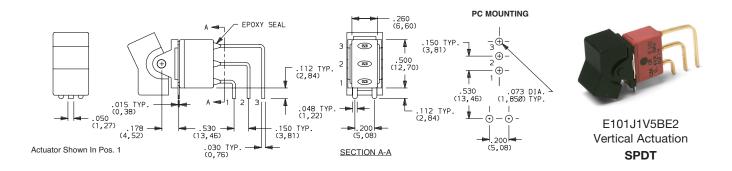
NOTE: Terminal bend radii and lead-in manufacturing option. Available actuators, see pages G-27 thru G-29.



E Series

Sealed Miniature Rocker and Lever Handle Switches

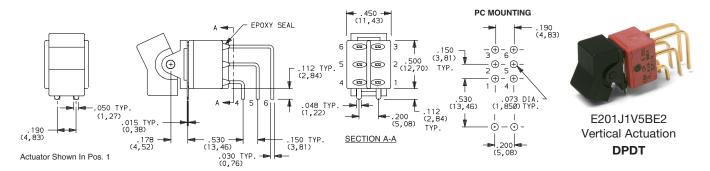
V5 VERTICAL RIGHT ANGLE, PC THRU-HOLE, .150" PITCH



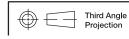
TERMINATIONS

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



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



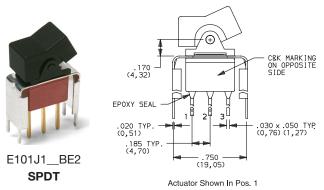


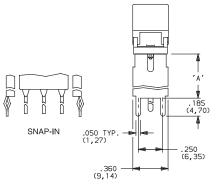
Sealed Miniature Rocker and Lever Handle Switches

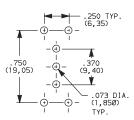


V6, V7, V8 VERTICAL MOUNT, V-BRACKET

V21 VERTICAL MOUNT, V-BRACKET, SNAP-IN





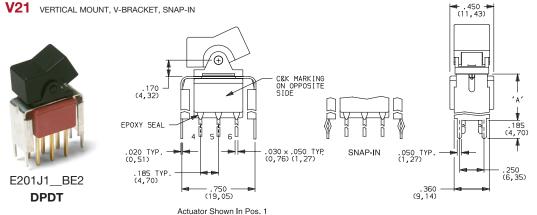


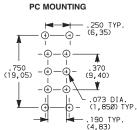
PC MOUNTING

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

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

V6, V7, V8 VERTICAL MOUNT, V-BRACKET

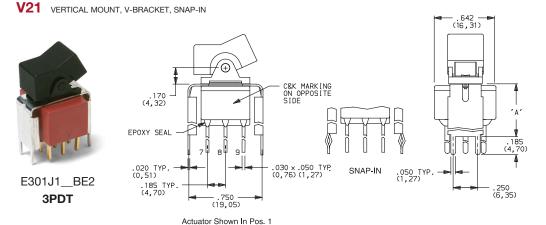




OPTION CODE	DIM 'A'
V21	.555 (14, 10)
V 6	.460 (11, 68)
V7	.630 (16, 00)
V 8	.953 (24, 21)

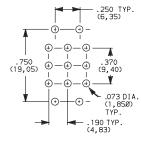
NOTE: Available actuators, see pages G-27 thru G-29.

V7, V8 VERTICAL MOUNT, V-BRACKET



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

PC MOUNTING



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



Third Angle

Dimensions are shown: Inches (mm)



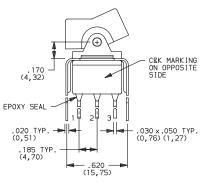
Specifications and dimensions subject to change

E Series Sealed Miniature Rocker and Lever Handle Switches

TERMINATIONS

V3, V4 VERTICAL MOUNT, V-BRACKET

V31 VERTICAL MOUNT, V-BRACKET, SNAP-IN



PC MOUNTING .125 TYP. .370 .185 (4,70) SNAP-IN .048 TYP (1,22) .125 (3,18) .320 (8,13)



E101J1__BE2 **SPDT**

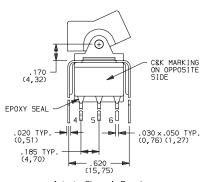
OPTION CODE	DIM 'A'
V3, V31	.460 (11,68)
V 4	.630 (16,00)

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

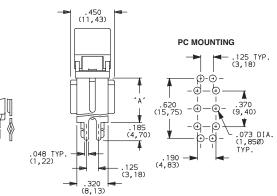
V3, V4 VERTICAL MOUNT, V-BRACKET

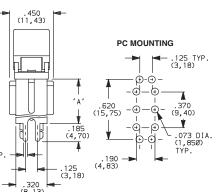
Actuator Shown In Pos. 1

V31 VERTICAL MOUNT, V-BRACKET, SNAP-IN



Actuator Shown In Pos. 1





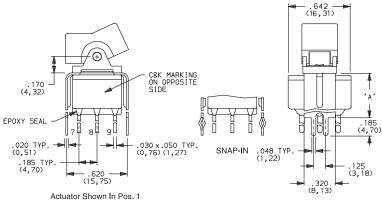


E201J1__BE2 **DPDT**

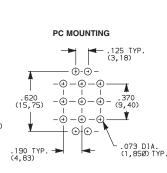
OPTION CODE	DIM 'A'
V3, V31	.460 (11,68)
V4	.630 (16,00)

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

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



SNAP-IN



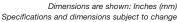


E301J1__BE2 3PDT

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

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







Sealed Miniature Rocker and Lever Handle Switches

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	0.4 VA WIPA. S 20 V AO ON DO WIPA.			
Q	SILVER 4,5	SILVER 5	DOMED	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.

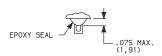
All models with all options when ordered with G, Q, S & R contact material. B contact material standard with all terminations.

PR&S contact materials not available with Z terminations.



E EPOXY SEAL

J2, J21 Actuators



AVAILABLE HARDWARE

PART NO.

760502263 BLACK
760503000 RED

Material: Nylon

J3 Actuator



PART NO. 766602263 BLACK 766603000 RED

Material: Nylon Finish: Matte J1, J11 Actuators



PART NO.

776A02263 BLACK
776A03000 RED

Material: Nylon

J50 Actuator



Other colors available, consult Customer Service Center.

PART NO. 775A02263 BLACK 775A03000 RED

Material: Nylon Finish: Matte J60 Actuator



PART NO. 613802263 BLACK 598103000 RED

Material: Nylon Finish: Matte

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

J90 Actuator



PART NO. 598002263 BLACK 598003000 RED

Material: Nylon Finish: Matte

n: Matte





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

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

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

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

⁵ CENTER CONTACT & ALL TERMINALS: Copper alloy, with gold flash over silver plate. Or copper alloy, silver plated.

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

E Series Sealed Miniature Rocker and Lever Handle Switches

AVAILABLE HARDWARE

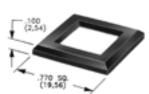
Fits Z3 Termination



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



MATTE

PART NO.

486702000

Material: Nylon Finish: Matte or Gloss

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.

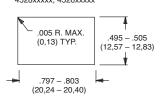
432602263 432603000 PART NO. 432702263

432703000

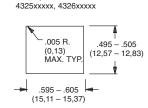
PART NO.

432802263 BLACK 432803000 RED

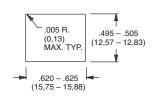
For part numbers 4529xxxxx, 4527xxxxx, 4528xxxxx, 4526xxxxx



PANEL MOUNTING For part numbers



For part numbers 4327xxxxx, 4328xxxxx





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



15 Jan 21



E Series

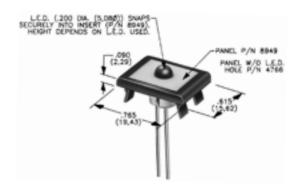
Sealed Miniature Rocker and Lever Handle Switches

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.

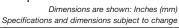
894902000 894903000 PART NO.

476602000 BLACK 476603000 RED

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

G-39







ET Series Sealed Subminiature Rocker Switches

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.

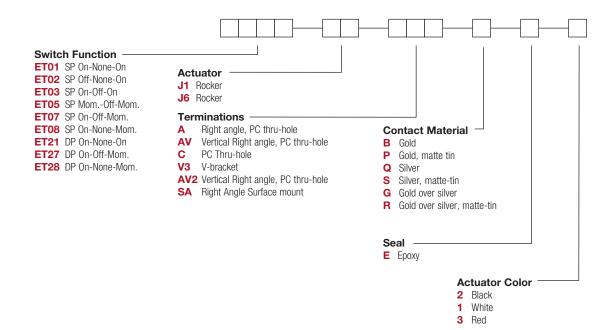
TERMINAL SEAL: Epoxy.

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 Center.

Build-A-Switch

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







ET Series

Sealed Subminiature Rocker Switches

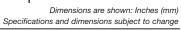
SWITCH FUNCTION

	SWITCH FUNCTION		CON	NECTED TERMI	INALS			
		POS. 1	POS. 2	POS. 3	POS. 1	POS. 2	POS. 3	
NO. POLES	MODEL NO.		4	4		4	4	SCHEMATIC
	ET01	ON	NONE	ON		N/A		
	ET03	ON	OFF	ON				● 2 (COMM)
SP	ET05	мом.	OFF	мом.	2-3	OPEN	2-1	1 ♦ \ •3
	ET07	ON	OFF	мом.				
	ET08	ON	NONE	мом.		N/A		SPDT
	ET02	OFF	NONE	ON	OPEN	N/A	3-1	spst 1 ● 3
SPDT 25° POS.3 POS. 3 POS. 2 POS. 1 POS. 1 POS. 3 POS. 2 POS. 3 POS. 2 POS. 3 POS. 2 POS. 1 POS. 3 POS. 2 POS. 3 POS. 3 POS. 2 POS. 3 POS. 3 POS. 2 POS. 3 POS. 3 POS. 2 POS. 3 POS. 3 POS.					200 - 5,08)			
	ET21	ON	NONE	ON		N/A		
DP	ET27	ON	OFF	мом.	2-3,5-6	OPEN	2-1,5-4	1 • 2 (COMM) 5 • 6
	ET28	ON	NONE	мом.		N/A		DPDT
DPDT C8K MARKING ON OPPOSITE SIDE POS. 2 POS. 1 POS. 3 POS. 2 POS. 3 POS. 3 POS. 2 POS. 3 POS. 2 POS. 3 POS. 2 POS. 3 POS. 2 POS. 3 POS. 3 POS. 2 POS. 3 POS. 2 POS. 3 POS. 2 POS. 3 POS. 2 POS. 3 POS. 3 POS. 2 POS. 3 POS. 2 POS. 3 POS. 2 POS. 3 POS. 2 POS. 3 POS. 3 POS. 2 POS. 3 POS. 3 POS. 2 POS. 3 POS. 2 POS. 3 POS. 2 POS. 3 POS. 2 POS. 3 POS. 3 POS. 2 POS. 3 POS. 2 POS. 3 POS. 2 POS. 3 POS. 2 POS. 3 POS. 3 POS. 2 POS. 3 PO							.030 TYP. (0,76) TERM. WIDTH	

MOM. = Momentary

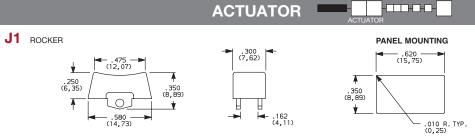
All models c N with all options when ordered with G, S, R or Q contact material.







Sealed Subminiature Rocker Switches

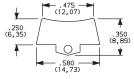


OPTION ACTUATOR CODE COLOR 2 **BLACK** 1 WHITE 3 RED

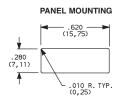
Actuators available separately, see page G-45. Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

NOTE: Internal o-ring actuator seal standard.

Available	with all models except ET0X with A & SA & SA1 termination	s.
J6	ROCKER	_



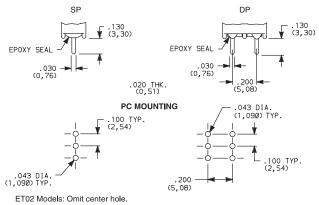




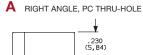
Standard with ET0X model with A & SA & SA1 terminations

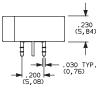
TERMINATIONS





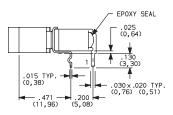
SP & DP

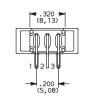


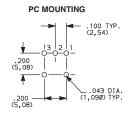


Actuator Shown In Pos. 1

Not available with FT02 model







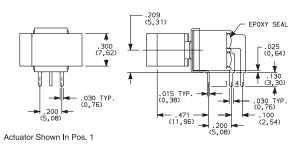


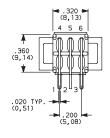
ET01J6ABE2 Horizontal Actuation

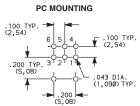
SPDT

A RIGHT ANGLE, PC THRU-HOLE

J6 actuator std. only on ET0X models with A terminations.









ET21J1ABE2 Horizontal Actuation **DPDT**





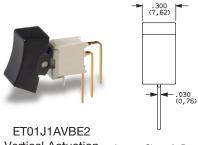


ET Series

Sealed Subminiature Rocker Switches

TERMINATIONS

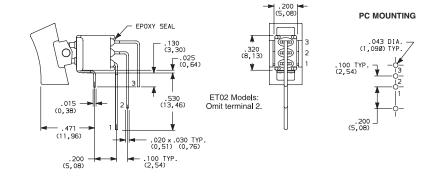
AV VERTICAL RIGHT ANGLE, PC THRU-HOLE



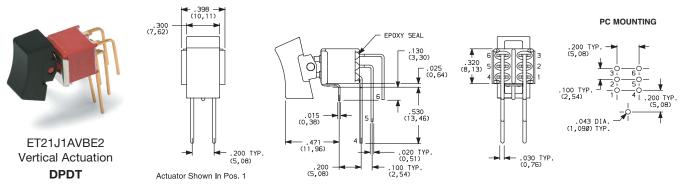
Vertical Actuation

Actuator Shown In Pos. 1

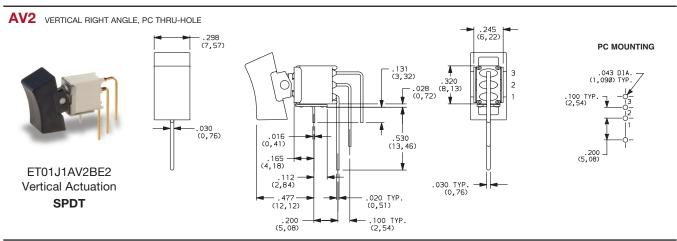
NOTE: Terminal bend radii and lead-in manufacturing option.



AV VERTICAL RIGHT ANGLE, PC THRU-HOLE

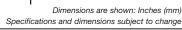


NOTE: Terminal bend radii and lead-in manufacturing option.



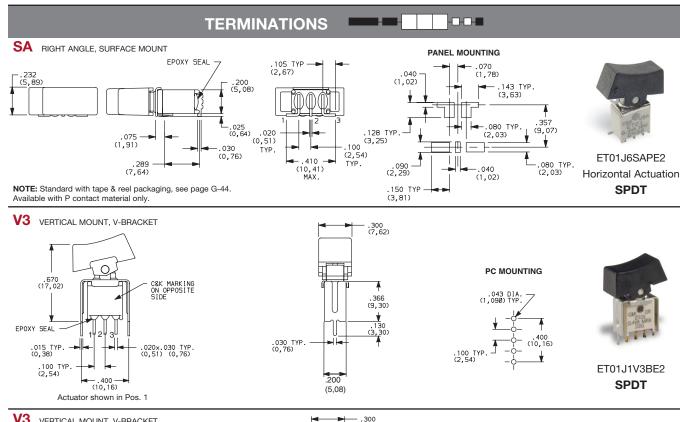
G-43

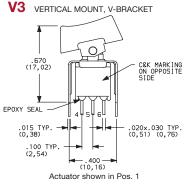


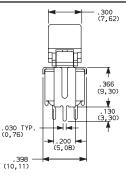


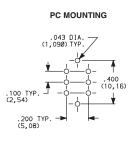


ET Series Sealed Subminiature Rocker Switches











DPDT

CONTACT MATERIAL

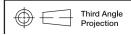
OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS		
В	GOLD ¹	GOLD ¹	LOW LEVEL/	O 4 VA MAY & CO V AO OD DO MAY	
Р	DRY CI	DRY CIRCUIT	0.4 VA MAX. @ 20 V AC OR DC MAX.		
Q	SILVER ^{4,5}	SILVER ⁵	POWER	ETX1 MODELS: 3 AMPS @ 120 V AC OR 28 V DC. ALL OTHER MODELS: 2 AMPS @ 120 V AC OR 28 V DC.	
S		MATTE-TIN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

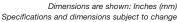
- * Note: See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.
- ¹ CONTACTS & TERMINALS: Copper alloy, with gold plate over nickel plate. ² END CONTACTS: Coin silver, with gold plate over nickel plate.
- $^{\mbox{\footnotesize 3}}$ CENTER CONTACTS & 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.

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.





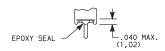


ET Series

Sealed Subminiature Rocker Switches







AVAILABLE HARDWARE

J1 Actuator



PART NO.

261A01000 WHITE 261A02263 BLACK 261A03000 RED

Material: Nylon Finish: Matte

NOT AVAILABLE WITH A, SA, SA1

J6 Actuator



PART NO.

621C01000 WHITE 621C02263 BLACK 621C03000 RED

Material: Nylon Finish: Matte

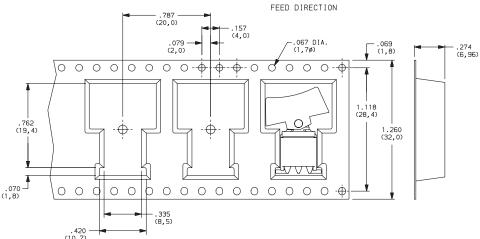
For Hi Temp, Consult Factory

NOTE: Other colors available, consult Customer Service Center.

TAPE & REEL SA TERMINATION

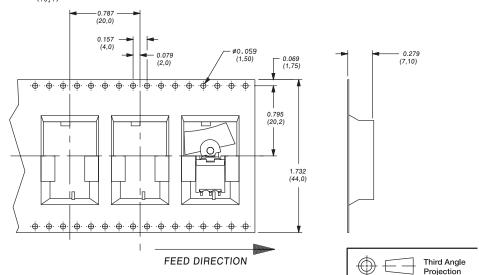
ET01J6SABE (SHOWN)

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				





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







Models Available

Specifications

CONTACT RATING: Q contact material (TX01 models): 3 AMPS @ 120 V AC or 28 V DC. All other models: 2 AMPS @ 120 V AC or 28 V DC. See page G-49 for additional ratings.

ELECTRICAL LIFE: TX01 models: 60.000 make-and-break cycles at full load. All other models: 30,000 cycles.

CONTACT RESISTANCE: Below 20 m Ω typ. initial @

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

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

DIELECTRIC STRENGTH: 1000 Vrms min. @ sea level.

OPERATING TEMPERATURE: -30°C to 85°C.

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

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

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

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.

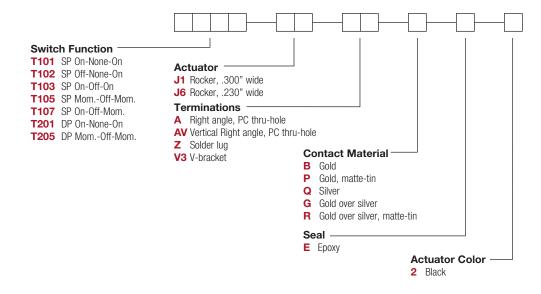
TERMINAL SEAL: Epoxy.

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.







T Series

Subminiature Rocker Switches

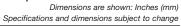
SWITCH FUNCTION

		SWITCH FUNCTION						
		POS. 1	POS. 2	POS. 3	POS. 1	POS. 2	POS. 3	
			100.12		1 35.1			
NO.	MODEL	4						
NO. POLES	NO.	C&K m	arking on opp	osite side	C&K	marking on oppo	site side	SCHEMATIC
	T101	ON	NONE	ON		N/A		
	T103	ON	OFF	ON	2-3		2-1	•2 (COMM)
SP	T105	мом.	OFF	мом.		OPEN	2-1	1 ● \ ●3
	T107	ON	OFF	мом.				SPST
	T102	OFF	NONE	ON	OPEN	N/A	3-1	1 • 3
SPDT Part numb	POS. 2 POS. 1 POS. 2	.016 (0,41)	(0,5 3 1 (2	TYP. 1) 00 TYP. 2,54) TYP. 3) dels:	Term		.250 (6,35)	PANEL MOUNTING .620 (15,75) .010 R. (0,25) TYP095 DIA. (2,410) TYP.
DP	T201	ON MOM.	NONE	ON MOM.	2-3,5-6	N/A OPEN	2-1,5-4	1 • 2 (COMM) 5 • 6 DPDT
DPDT	POS. 3 POS. 2 POS. 1 POS. 3 POS. 2 POS. 1 POS. 2 POS. 1 POS. 2 POS. 1 POS. 2 POS. 1 POS. 3 POS. 2 POS. 3 POS. 3 POS. 2 POS. 3 PO					093 01 (2, 360) (2, 360) (2, 360) (2, 360) (2, 360) (2, 360) (2, 360) (2, 360) (2, 360) (2, 360) (3, 360) (4, 360) (4, 360) (5, 360)	A. TYP. .320 (8,13) ↓	PANEL MOUNTING (15,75) (15,7
Part numb	ber shown: T201J1ZBE				Termin For Refere			

MOM. = Momentary

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

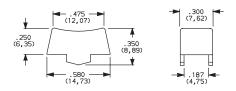


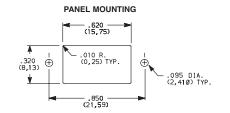




ACTUATOR

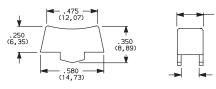
J1 ROCKER, .300 WIDE

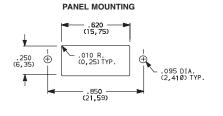




Standard with all models except T10X with A terminations.

J6 ROCKER, .230 WIDE





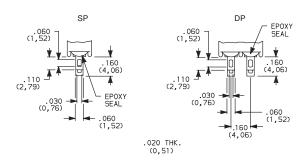
Standard with T10X model with A terminations.

OPTION **ACTUATOR BLACK**

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

TERMINATIONS

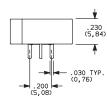
Z SOLDER LUG

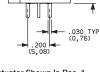


SP and DP

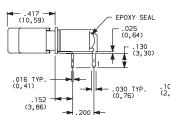
Not available with P or R contact material.

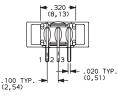
A RIGHT ANGLE, PC THRU-HOLE

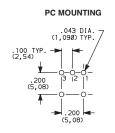




Actuator Shown In Pos. 1









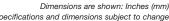
T101J6ABE2 Horizontal Actuation **SPDT**

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



Specifications and dimensions subject to change



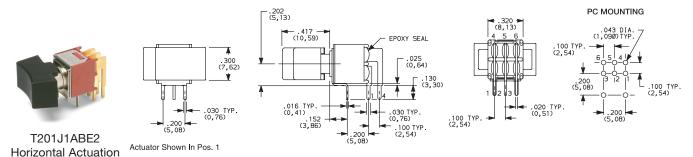




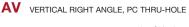
T Series Subminiature Rocker Switches

TERMINATIONS

A RIGHT ANGLE, PC THRU-HOLE

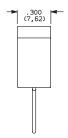


DPDT

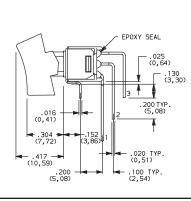


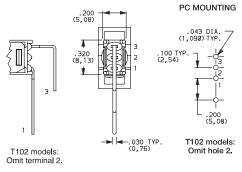


T101J1AVBE2 Vertical Actuation **SPDT**



Actuator Shown In Pos. 1



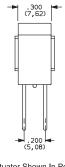


NOTE: Terminal bend radii and lead-in manufacturing option.

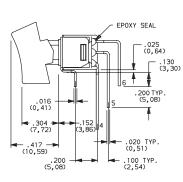
AV VERTICAL RIGHT ANGLE, PC THRU-HOLE

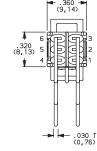


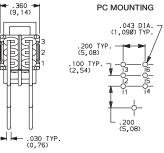
T201J1AVBE2 Vertical Actuation **DPDT**



Actuator Shown In Pos. 1





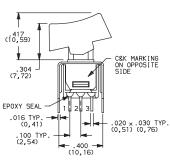


NOTE: Terminal bend radii and lead-in manufacturing option.

V3 VERTICAL MOUNT, V-BRACKET

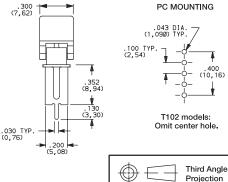


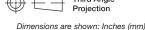
T101J1V3BE2 **SPDT**



Actuator Shown In Pos. 1





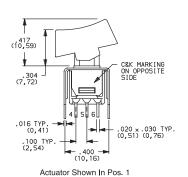


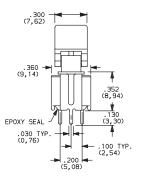
Specifications and dimensions subject to change

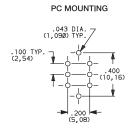


TERMINATIONS

V3 VERTICAL MOUNT, V-BRACKET









DPDT

CONTACT MATERIAL

OPTION CODE			RATINGS		
В		GOLD ¹	LOW LEVEL/	0.4 VA MAX. @ 20 V AC OR DC MAX.	
Р	GOLD ³	MATTE-TIN 6	DRY CIRCUIT	S.4 VANDOL & 20 V AC ON DO WINA.	
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	LOW LEVEL/DRY	TX01 MODELS: 0.4 VA MAX @ 20 V AC OR DC MAX. OR 3 AMPS @ 120 V AC OR 28 V DC.	
R	SILVER 2,3 CIRCUIT OR POWER		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.

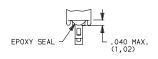
All models with all options when ordered with G, Q, or R contact material.

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





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 over nickel plate.

⁴ END CONTACTS: Coin silver, silver plated.

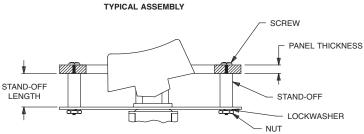
 $^{^{5}}$ CENTER CONTACT & ALL TERMINALS: Copper alloy, silver plated.

 $^{^{\}mbox{\scriptsize 6}}$ TERMINALS: Copper alloy, with matte-tin over nickel plate.

T Series Subminiature Rocker 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.



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

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

J6 Actuator



PART NO. 468102263 BLACK

Material: Nylon Finish: Matte





Features/Benefits

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

Typical Applications

- Small equipment
- Shut-off switch







Specifications

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.

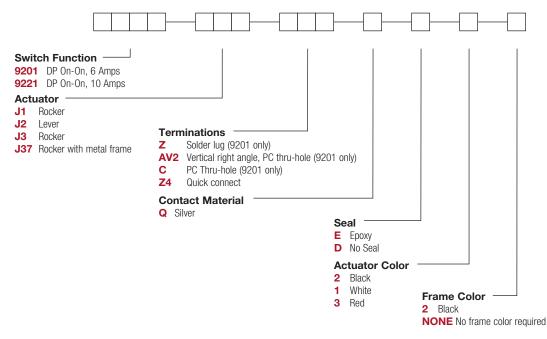
*Cadmium used in electrical contacts is acceptable for RoHS.

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.

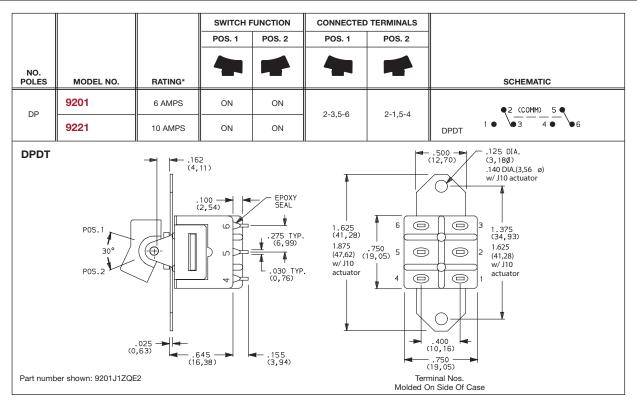


G-52



Power Rocker and Lever Handle Switches

SWITCH FUNCTION



All 9000 Series models meet international dimensional and electrical requirements.





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

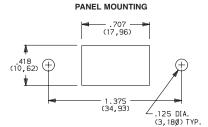
9221 model must be ordered with Z4 terminations and D seal option.

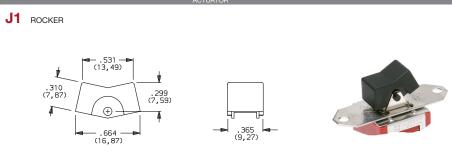
ACTUATOR-PANEL MOUNT

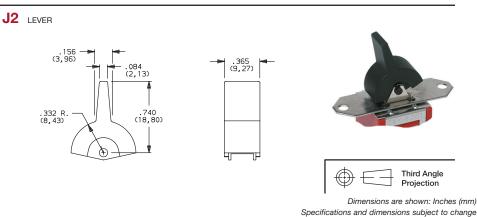
OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE
3	RED

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.

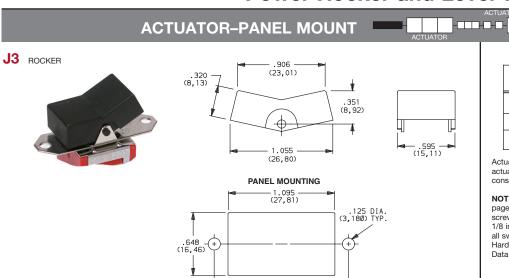












OPTION CODE	ACTUATOR COLOR		
2	BLACK		
1	WHITE		
3	RED		

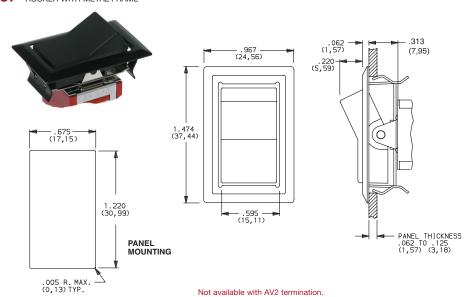
Actuator finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

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.

ACTUATOR-REAR MOUNT



J37 ROCKER WITH METAL FRAME



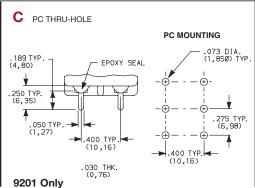
OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE
3	RED

OPTION CODE	FRAME COLOR
2	BLACK

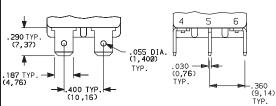
Actuator finish: Matte. Frame finish: Gloss. Other colors, custom actuator markings and legends available, consult Customer

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







9201 and 9221

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



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



Z SOLDER LUG

.080 TYP.

9201 Only

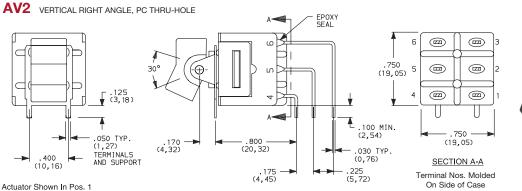
.400 TYP. (10,16)

.030 THK.

9000 Series

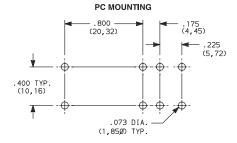
Power Rocker and Lever Handle Switches

TERMINATIONS





9201J1AV2QE2 Vertical Actuation **DPDT**



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.
 - 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

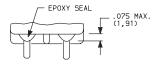














Not available with 9221 model or Z4 terminations

Must be ordered with 9221 model and Z4 termination.

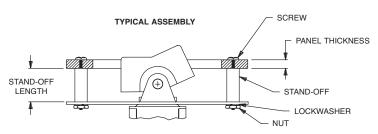




9000 Series Power Rocker and Lever Handle Switches

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 **760502263** BLACK **760503000** RED

Material: Nylon Finish: Matte J3, J37 Actuators



PART NO.

766601000 WHITE **766602263** 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.







DA Series Miniature Single Pole Rocker Switches

Features/Benefits

- Nice actuator styling with multiple options
- Guards to prevent accidental actuation
- Momentary and maintained functions
- IP54 splash proof rubber boot option
- RoHS compliant

c **Fl**us 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.

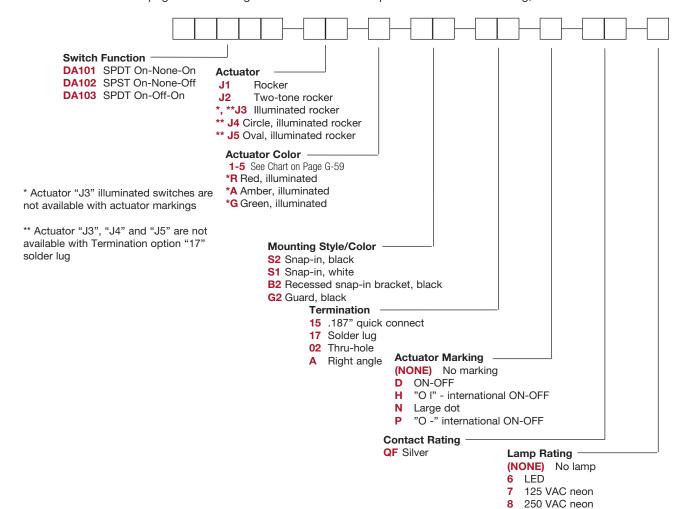
CENTER CONTACTS: Silver plated, copper alloy.

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-60. For additional options not shown in catalog, consult Customer Service Center.



G-57

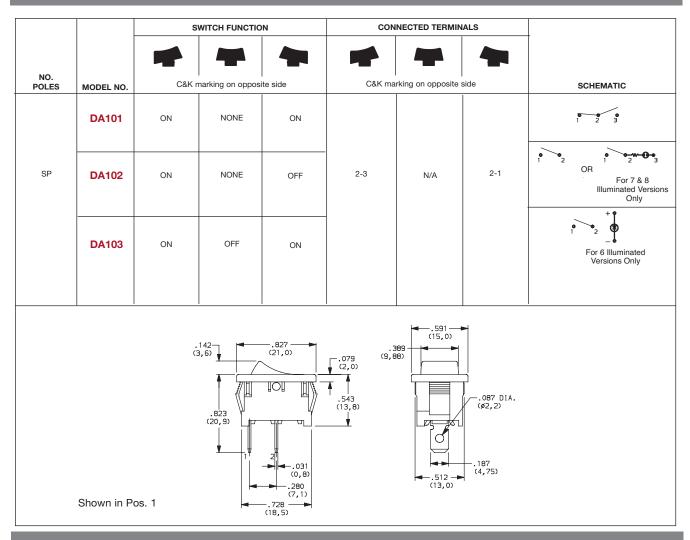


Dimensions are shown: Inches (mm)

15 May 20

DA Series Miniature Single Pole Rocker Switches

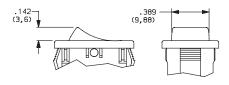
SWITCH FUNCTION -----



ACTUATOR -0-00-00-0-00-0

J1 ROCKER

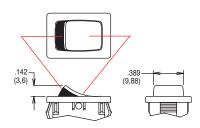
*J3 ILLUMINATED ROCKER



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





NOTE:

G-58

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



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

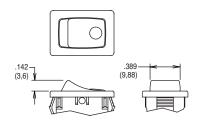


15 May 20

DA Series Miniature Single Pole Rocker Switches

ACTUATOR -0-00-00-0-0

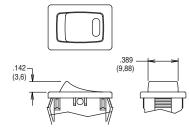
J4 CIRCLE, ILLUMINATED ROCKER



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

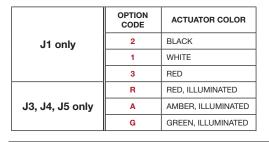
J5 OVAL, ILLUMINATED ROCKER



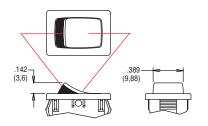
NOTE: Available with DA102 switch function and

- 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



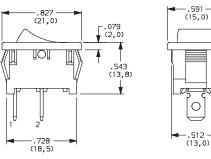
	OPTION CODE	ACTU	JATOR COLOR
		TOP	воттом
	1	WHITE	RED
J2	2	WHITE	BLACK
only	3	RED	WHITE
	4	BLACK	WHTE
	5	BLACK	RED



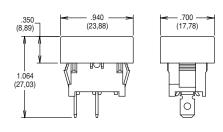
MOUNTING STYLE/COLOR

\$2 SNAP-IN, BLACK

\$1 SNAP-IN, WHITE







NOTE: Available with DA10X switch functions only.

G-59

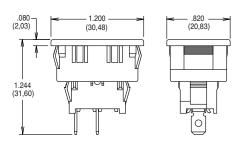
S2, S1 & G2 PANEL MOUNTING



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



0

NOTE: Available with DA10X switch functions only.

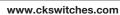
B2 PANEL MOUNTING



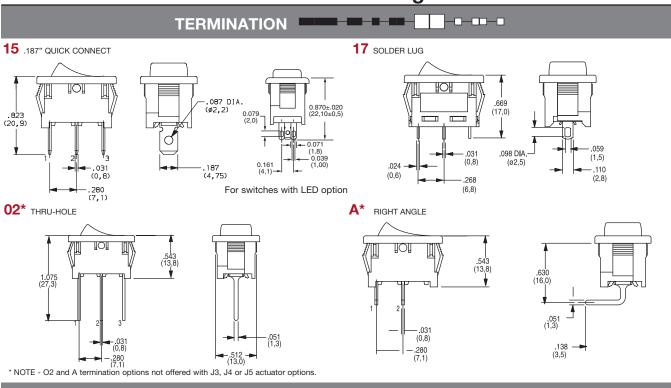
PANEL THICKNESS	"Y"
0.030-0.049 (0,75-0,25)	1.068 (27,13)
0.049-0.079 (1,25-2,0)	1.076 (27,33)
0.079-0.118 (2.0-3.0)	1.092 (27.74)







KOCK



ACTUATOR MARKING

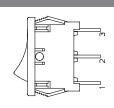












All models shown in Pos. 1 Markings not available with J3 actuator

NOTE: Orientation of actuator marking and terminals.

CONTACT MATERIAL

OPTION CODE	CONTACT AND TERMINAL MATERIAL	RATINGS	
QF	SILVER	POWER	16 AMPS @ 125 VAC; 1/3 HP; 10 AMPS @ 250 VAC; 1/2 10 AMPS @ 125 VAC, 6 AMPS @ 250 VAC

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

LAMP RATING

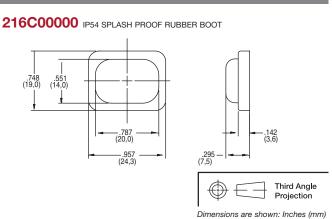
ACCESSORIES

(NONE) NO LAMP

6 LED RATING @ 10 mA V_f=1.85V

7 125 VAC 33kΩ NEON

8 250 VAC 150kΩ NEON



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



15 May 20

D Series

Miniature Snap-in Power Rocker Switches

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.

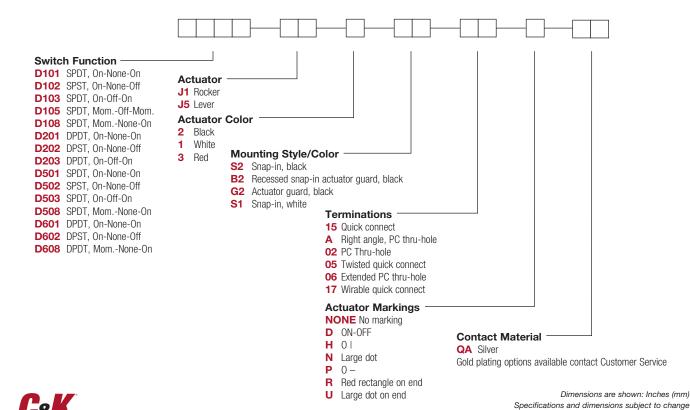
STATIONARY CONTACTS AND TERMINALS: Copper or brass, silver plated. Gold plating available.

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-65. For additional options not shown in catalog, consult Customer Service Center.







D Series Miniature Snap-in Power Rocker Switches

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	<i>.</i>
	D105	4	мом.	OFF	мом.				SPDT ^{1A} ^{1B}
	D108 D508	4 10	мом.	NONE	ON		N/A		
SPDT	er shown: D101J12S2		actuator sho	.031 x . (0,79) (4,75)	. 220 (20, 8 . 218 (5, 54	1A TYP	05.	
	D202 D602	4 10	ON	NONE	OFF		N/A	OPEN	DPST 1A 2A
DP	D201 D601	4 10	ON	NONE	ON	1-1A, 2-2A		1-1B, 2-2B	
	D203 D608	10	MOM.	OFF NONE	_		OPEN N/A	_	1A 1B 2A 2B DPDT
DPDT		.080 — (2,03)	.715 (18,16	(2, .26 (7, .2 (1, .2 (20) 34	.820 (20,83) 2 (22,83) 2	.874 (22,20) .400 (10,16) .339 (23,85)	155 TYP (3,94) 18 1730 1(18,54) 11A 1,050 (1,27)	II.
Part num	ber shown: D201J12S	215QA					TERMINAL NOS. FOR REF. ONLY		

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

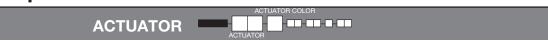




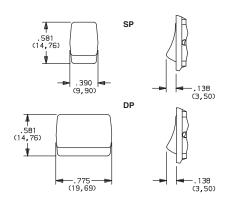
G

D Series

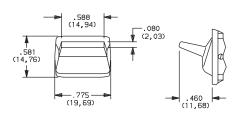
Miniature Snap-in Power Rocker Switches



J1 ROCKER



J5 LEVER



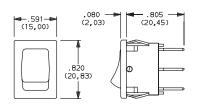
OPTION CODE	ACTUATOR COLOR	
2	BLACK	
1	WHITE	
3	RED	

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

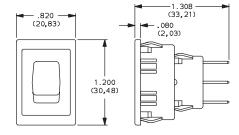
S SNAP-IN



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

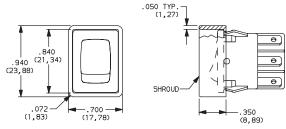
NOTE: Frame finish on housing: matte. Other colors available, consult Customer Service Center.

B2 RECESSED SNAP-IN ACTUATOR GUARD, BLACK



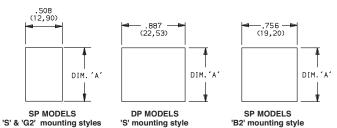
NOTE: Vertical mount, SP models only.

G2 ACTUATOR GUARD, BLACK



NOTE: Vertical mount, SP models only.

PANEL MOUNTING



PANEL THICKNESS	The state of the s		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.

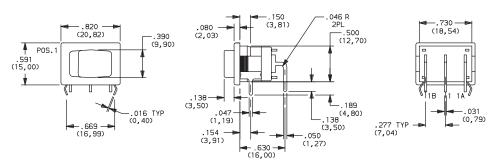


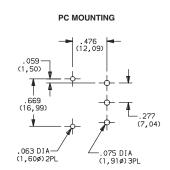


D Series Miniature Snap-in Power Rocker Switches

TERMINATIONS

A RIGHT ANGLE, PC THRU-HOLE

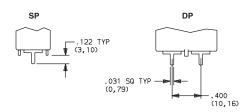




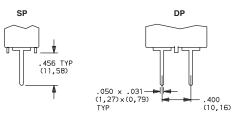
Available with D101, D102, D501, D502 SP models only.

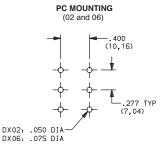


02 PC THRU-HOLE



06 EXTENDED PC THRU-HOLE

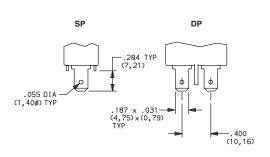




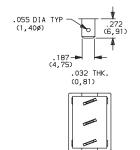
Available with DX01 and DX02 models only.

Available with DX01 and DX02 models only.

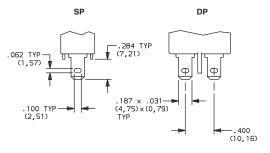
15 QUICK CONNECT



05 TWISTED QUICK CONNECT



17 WIRABLE QUICK CONNECT



Available with DX01 and DX02 models only.

NOTE: Terminals are twisted

Available with DX01 and DX02 models only.

ACTUATORS

NONE NO MARKING



N LARGE DOT



ON END









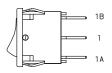
H ol











'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. NOTE: Orientation of actuator markings and terminals.





D Series

Miniature Snap-in Power Rocker Switches

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

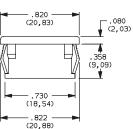


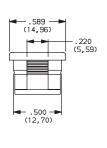
0.4VA @ 20V AC/DC Gold plated options avilable contact Customer Service.

AVAILABLE HARDWARE

SP Only







Recessed Actuator Guard, SP Only



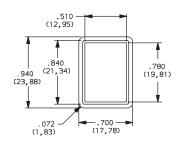
PART NO. 057190200 BLACK

Material: Nylon 6/6 Finish: Matte

599D02000 BLACK

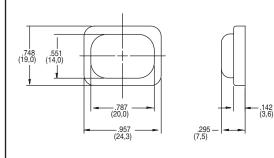
Material: 6/6 Nylon Finish: Matte

Actuator Guard



PART NO.

216C00000 IP54 SPLASH PROOF RUBBER BOOT

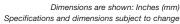


PART NO. 104C22000

Material: PBT thermoplastic

Finish: Matte











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

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

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.

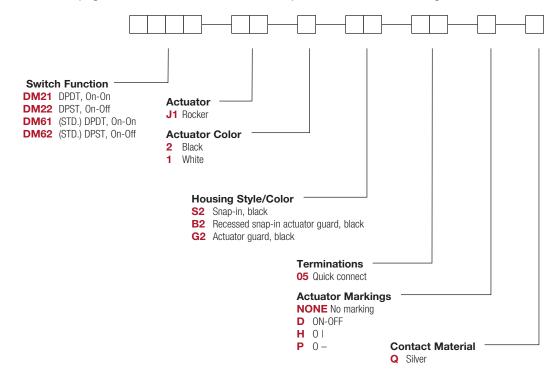
CONTACT SPRING: Music wire or stainless steel.

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

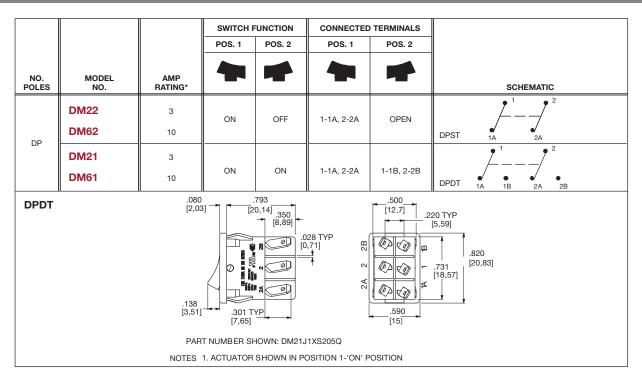
To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages G-66 and G-69. For additional options not shown in catalog, consult Customer Service Center.





Miniature 2 Pole Power Rocker Switches

SWITCH FUNCTION



RATINGS: See page G-65 for complete ratings.

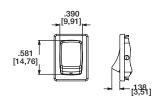


UL 61058-1 tested to 30C temperature rise @ 6,000 cycles.

ACTUATOR

G-67

J1 ROCKER

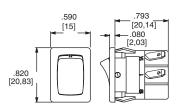


OPTION CODE	ACTUATOR COLOR			
2	BLACK			
1	WHITE			

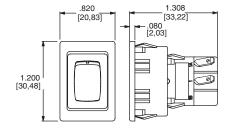
NOTE: Actuator finish: matte. Other colors available, consult Customer Service Center.

HOUSING STYLE/COLOR

\$2 SNAP-IN, BLACK



NOTE: Housing finish: matte. Other colors available, consult Customer Service Center. **B2** RECESSED SNAP-IN ACTUATOR GUARD, BLACK



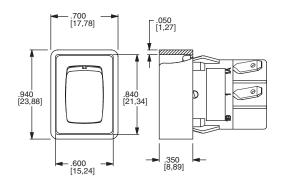




DM Series Miniature 2 Pole Power Rocker Switches

HOUSING STYLE/COLOR

G2 ACTUATOR GUARD, BLACK



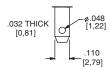
PANEL MOUNTING .508 (12,90) -.756 -(19,20) DIM A 'S2' & 'G2' housing styles 'B2' housing style

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



ACTUATOR MARKINGS NONE NO MARKING **H** 01 D ON-OFF **P** 0-OFF

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			
Q	OILVEIT .			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		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.
- $^2\ \mbox{STATIONARY}$ CONTACTS & TERMINALS: Copper or brass, silver plated.

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





Dimensions are shown: Inches (mm)



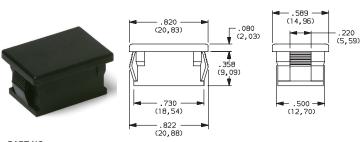
Specifications and dimensions subject to change

DM Series

Miniature 2 Pole Power Rocker Switches

AVAILABLE HARDWARE

Insert



Recessed Actuator Guard

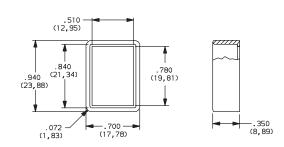


PART NO. 057190200

Material: Nylon 6/6 Finish: Matte PART NO. 599D02000

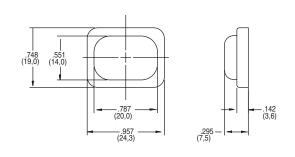
Material: 6/6 Nylon Finish: Matte

Actuator Guard



PART NO.

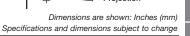
216C00000 IP54 SPLASH PROOF RUBBER BOOT



PART NO.

104C22000 Material: PBT thermoplastic

Finish: Matte









Features/Benefits

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

Typical Applications

- Instrumentation
- Industrial
- Office machines

Specifications

CONTACT RATING:

DM14 and DM24 Models:

GP (general purpose)

3 AMPS @ 125 V AC; 2 AMPS @ 250 V AC.

R (resistive)

3 AMPS 30 VDC 10,000 cycles

DM54 and DM64 Models:

GP (general purpose)

10 AMPS @ 125 V AC; 5 AMPS @ 250 V AC (UL).

R (resistive)

10 AMPS 30 VDC 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.

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.

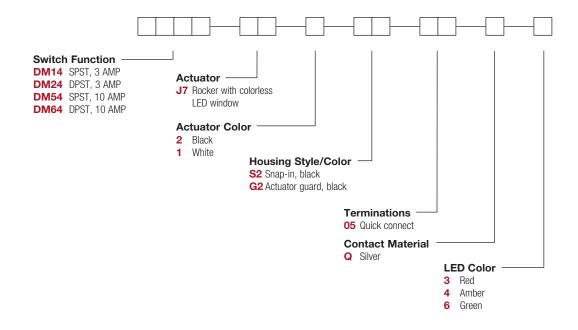
CONTACT SPRING: Music wire or stainless steel. OPERATING TEMPERATURE: -20°C to +65°C

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.

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-73. For additional options not shown in catalog, consult Customer Service Center.



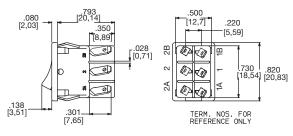


Miniature Illuminated Power Rocker Switches

SWITCH FUNCTION

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

DPDT



Actuator shown in pos. 1 - 'ON' position. SPST MODELS (D M14 & DM54) OMIT TERM INALS 2 & 2A.

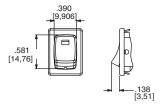
Part number shown: DM24J72S205Q3

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



ACTUATOR

J7 ROCKER WITH COLORLESS LED WINDOW

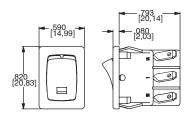


OPTION CODE	ACTUATOR COLOR			
2	BLACK			
1	WHITE			

NOTE: Other colors available, consult Customer Service Center.

HOUSING STYLE/COLOR

\$2 SNAP-IN, BLACK



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

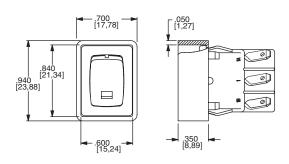


Dimensions are shown: Inches (mm)

Miniature Illuminated Power Rocker Switches

HOUSING STYLE/COLOR

G2 ACTUATOR GUARD, BLACK





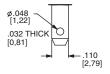
'S2' & 'G2' housing style

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

TERMINATIONS

05 QUICK CONNECT



CONTACT MATERIAL

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

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

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

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



LED COLOR

				RECOMMENDED RESISTOR @ VOLTA				
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



Dimensions are shown: Inches (mm)



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

DM Series

057190200

Finish: Matte

Material: Zinc nylon 6/6

Miniature Illuminated Power Rocker Switches

AVAILABLE HARDWARE

-.589 -(14,96) - .820 -(20,83) .080 -.220 (5,59) .358 (9,09) 730 - .500 **-**(12**,**70) (18,54) - .822 -(20,88) PART NO.

Recessed Bracket

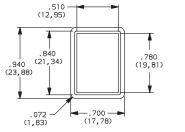


PART NO.

599D02000

Material: 6/6 Nylon Finish: Matte

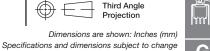
Actuator Guard



PART NO. 104C22000

Material: PBT thermoplastic Finish: Matte

-.350 (8,89)









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.

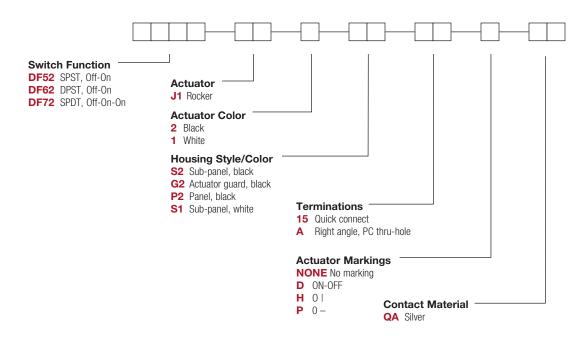
CONTACTS: Fine silver, silver plated. TERMINALS: Copper, silver plated.

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.





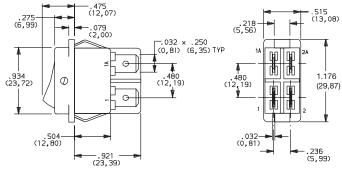


DF Series Power Rocker Switches

SWITCH FUNCTION

		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

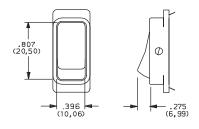
NO. POLES	MODEL NO.	POS. 1	POS. 2	POS. 3	POS. 1	POS. 2	POS. 3	SCHEMATIC
SP	DF72	OFF	ON	ON	OPEN	1 / 2-2A	1 / 2-1A 1 / 2-2A	POS. 1 POS. 2 POS. 3 1a 2a 1a 2a 1a 2a 1 2 1 2 1 2

All models



ACTUATOR ACTUATOR ACTUATOR

J1 ROCKER

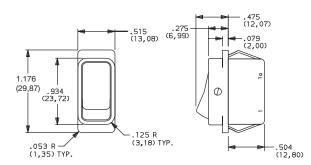


OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE

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







NOTE: DF52 & DF62 models only.

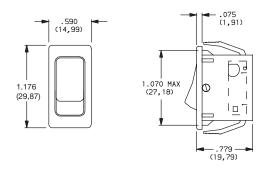
.050 TYP. (1,27) 1.285 (32.64) SHROUD SHROUD 1.090 (27,69)

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

(18.08)

G2 ACTUATOR GUARD

PANEL



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

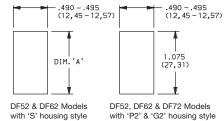
OPTION CODE HOUSING COLOR 2 (STD.) BLACK WHITE

R .082 (2,08) TYP.

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

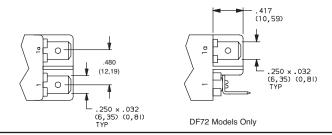
PANEL MOUNTING

PANEL THICKNESS	DIM 'A'
.029048	1.021
(0,74) (1,22)	(25,93)
.048–.078	1.029
(1,22) (1,98)	(26,14)
.078–.117	1.045
(1,98) (2,97)	(26,54)
.075–.140	1.075
(1,91) (3,56)	(27,31)

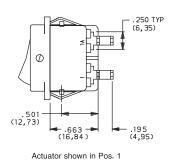


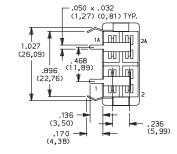
-**TERMINATIONS**

15 QUICK CONNECT



A RIGHT ANGLE, PC THRU-HOLE





.896 (22,76)

.501 (12,73)

PC MOUNTING

NOTE: DF52 and DF62 Models Only

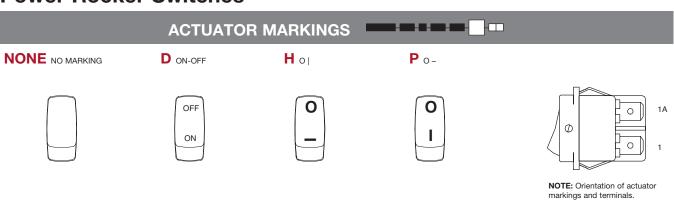


.195 (4**,**95)





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

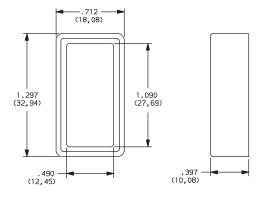
OPTION CODE	CONTACT AND TERMINAL MATERIAL		RATINGS
QA	SILVER 1,2	POWER	16 AMPS @ 125, 250 V AC; 1/4 HP @ 125 V AC; 1/2 HP @ 250 V AC; 6 AMPS @ 48 V DC (UL), 2 AMPS @ 60 V DC, 11 AMPS @ 30 V DC
			16 AMPS @ 125, 250 V AC; 1/4 HP @ 125 V AC; 1/2 HP @ 250 V AC (UL)

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

All models CTUS

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



ռ**ԳԱ**սո UL 61058-1

Specifications

CONTACT RATING:

16 AMPS @ 125 VAC, 10 AMPS @ 250 VAC. 16 AMPS @ 125 VAC, 10 AMPS @ 250 VAC.

ELECTRICAL LIFE: 10,000 make and break cycles at full load.

INSULATION RESISTANCE: $10^8 \Omega$ min.

DIELECTRIC STRENGTH: 1.500 VRMS @ sea level. OPERATING TEMPERATURE: -20°C to + 85°C

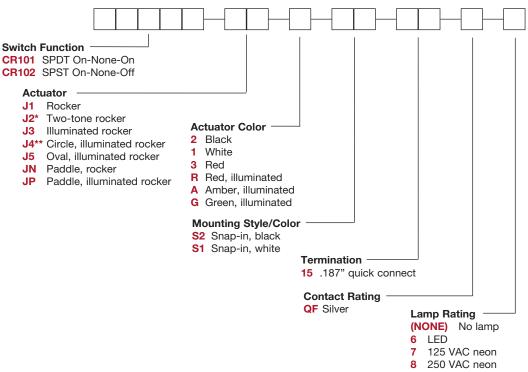
Materials

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.



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





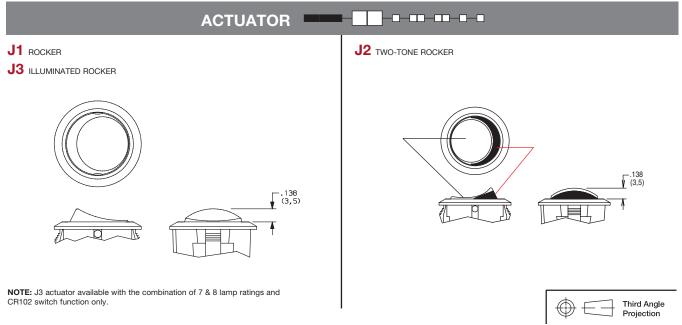
Rocker

CR Series

Round Single Pole Specialty Rocker Switches

SWITCH FUNCTION

		S	WITCH FUNCTIO	N	со	NNECTED TERMIN	ALS	
		Pos. 1	Pos. 2	Pos. 3	Pos. 1	Pos. 2	Pos. 3	
				4			4	
NO. POLES	MODEL NO.	C&K	narking on opposi	te side	C&K m	narking on opposite :	side	SCHEMATIC
	CR101	ON	NONE	ON	2-3		2-1	1 2 3
					-	N/A		OR For 7 & 8 Illuminated Versions
SP	CR102	ON	NONE	OFF				marminated versions
Si								1 2 0
			.906 DIA. (Ø23,0) .079————————————————————————————————————	.030 (0,8) (7,1)	13	.187	.138 (3,5)	

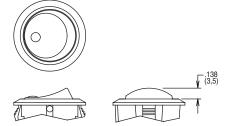




CR Series Round Single Pole Specialty Rocker Switches

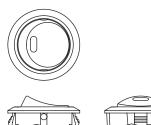
ACTUATOR -0-00-00-0

J4 CIRCLE, ILLUMINATED ROCKER



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

J5 OVAL, ILLUMINATED ROCKER

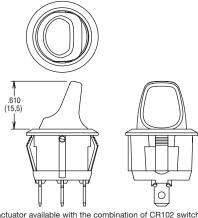


NOTE: Available with the combination of CR102 switch function and 6 lamp rating only.

(3,5)

JN PADDLE, ROCKER

JP PADDLE, ILLUMINATED ROCKER

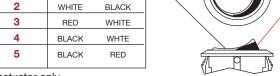


NOTE: JP actuator available with the combination of CR102 switch function and 7 & 8 lamp ratings only.

ACTUATOR COLOR

ACTUATOR	OPTION CODE	ACTUATOR COLOR	
2		BLACK	
J1	1	WHITE	
	3	RED	
12 14	R	RED, ILLUMINATED	
J3, J4 J5, JP	Α	AMBER, ILLUMINATED	
Jo, JP	G	GREEN, ILLUMINATED	

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

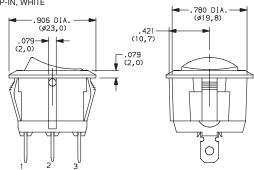


J2 actuator only

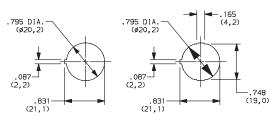
MOUNTING STYLE/COLOR ----

\$2 SNAP-IN, BLACK

\$1 SNAP-IN, WHITE



PANEL MOUNTING



Panel thickness: 2.0 - 3.0 mm

Panel thickness: 0.7 - 3.0 mm





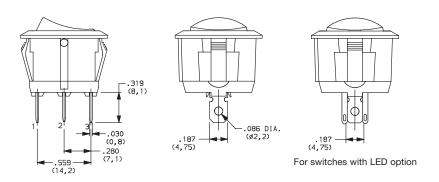
Rocker

CR Series

Round Single Pole Specialty Rocker Switches

TERMINATION

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 '91 °us	

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

LAMP RATING

(NONE) NO LAMP

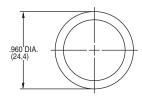
6 LED RATING @ 10 mA V_f=1.85V

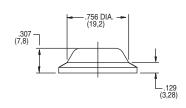
7 125 VAC 33kΩ NEON

8 250 VAC 150kΩ NEON

ACCESSORIES

377C00000 IP65 SPLASH PROOF RUBBER BOOT









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 ± 100 gf

OFF ON: 700 ± 250 qf

PACKAGING: 300 pieces per bag (5 trays)

2,400 pieces per box

Materials

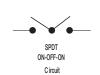
HOUSING: PA (UL 94V-2). KNOB: PA (UL 94V-2). CONTACTS: Silver plated.

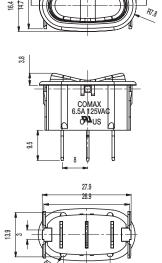
NOTE: Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

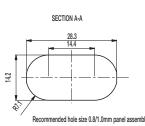
Environmental

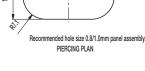
OPERATING TEMPERATURE: 0°C to 65°C

PART NUMBER	HOUSING COLOR
SW-13A65N-A01	White
SW-13A65N-A01 BK	Black
SW-11A06N-A02	Black
SW-11A06N-A03 AP	Black
SW-11A06N-B02	Black
SW-11A06N-B02 AP	Black
SW-11A06N-CR02	Black
SW-12A06N-B02	Black
SW-12A06N-F01	Black
SW-12B03N	Black
SW-13A65N-A01 AK	Almond
SW-13A65N-A01 BI	Biscuit











CG Series Single Pole Power Rocker Switches

Features/Benefits

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

Typical Applications

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



c Nus UL 61058-1

Specifications

CONTACT RATING:

16 AMPS @ 125 VAC, 10 AMPS @ 250 VAC. 10 AMPS @ 250 VAC, 6 AMPS @ 250 VAC.

ELECTRICAL LIFE: 10,000 make and break cycles at full load.

INSULATION RESISTANCE: $10^8 \Omega$ min.

DIELECTRIC STRENGTH: 1,500 VRMS @ sea level. OPERATING TEMPERATURE: -20°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.

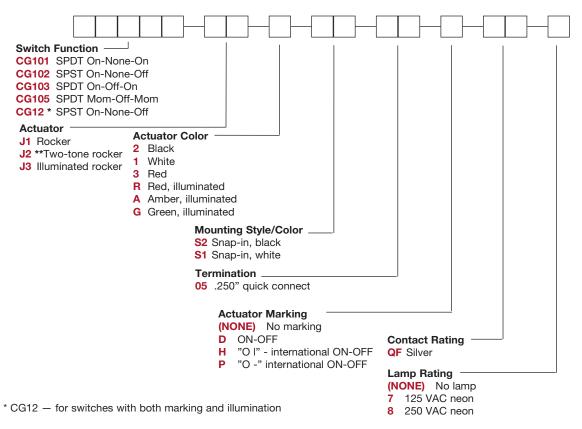
END CONTACTS: Silver plated.

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–87 through G–89. For additional options not shown in catalog, consult Customer Service Center.



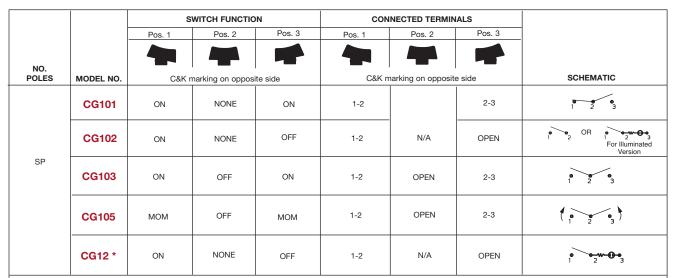




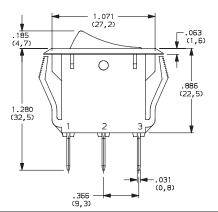


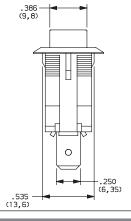
CG Series Single Pole Power Rocker Switches

SWITCH FUNCTION



* CG12 - for switches with both marking and illumination



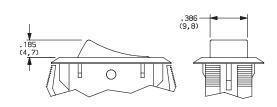


ACTUATOR

J1 ROCKER

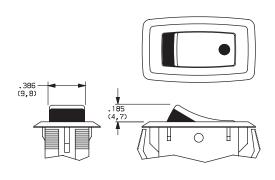
J3 ILLUMINATED ROCKER

Shown in Pos. 1



NOTE: J3 actuator available with CG102 switch function only.





NOTE: Available with CG102 switch function only.





CG Series Single Pole Power Rocker Switches

ACTUATOR COLOR -----

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

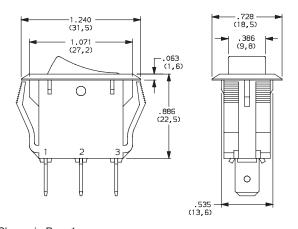
OPTION CODE	ACTUATOR COLOR		
	TOP	воттом	
1	WHITE	RED	
2	WHITE	BLACK	
3	RED	WHITE	
4	BLACK	WHTE	
5	BLACK	RED	

J2 actuator only

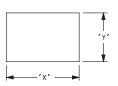
MOUNTING STYLE/COLOR

\$2 SNAP-IN, BLACK

\$1 SNAP-IN, WHITE



PANEL MOUNTING

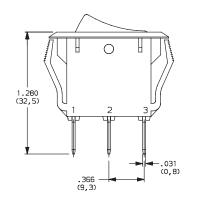


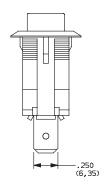
PANEL THICKNESS	"X"	"Y"
0.030-0.049 (0,75-1,25)	1.087004 (27,6-0,1)	0.543+.004 (13,8+0,1)
0.049-0.079 (1,25-2,0)	1.094004 (27,8-0,1)	0.543+.004 (13,8+0,1)
0.079-0.118 (2,0-3,0)	1.102004 (28,0-0,1)	0.543+.004 (13,8+0,1)

Shown in Pos. 1

TERMINATION

05 .250" QUICK CONNECT





Shown in Pos. 1



Shown in Pos. 1

CONTACT MATERIAL

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

 $^{\star}\,\text{Note: See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications}.$



LAMP RATING

(NONE) NO LAMP

7 125 VAC 33kΩ NEON

8 250 VAC 150kΩ NEON

NOTE: Lamp rating for J3 actuator option.







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CL Series Single Pole Power Rocker Switches

Features/Benefits

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

Typical Applications

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





Specifications

CONTACT RATING:

16 AMPS @ 125 VAC, 1/3 HP; 10 AMPS @ 250 VAC, 1/2 HP.

ELECTRICAL LIFE: 10,000 make and break cycles at full load.

INSULATION RESISTANCE: $10^8 \Omega$ min.

DIELECTRIC STRENGTH: 1,500 VRMS @ sea level. OPERATING TEMPERATURE: -20°C to +80°C

Materials

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

CENTER CONTACTS: Silver plated, copper alloy.

END CONTACTS: Silver plated.

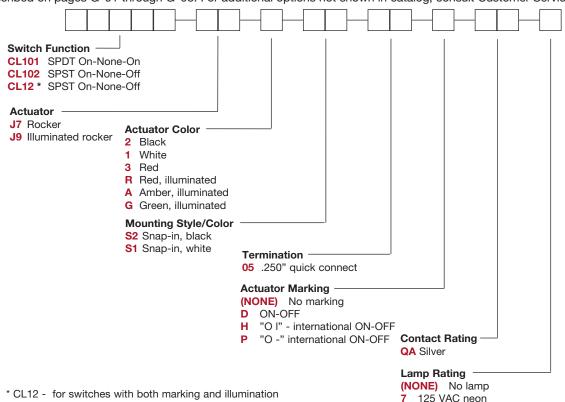
ALL TERMINALS: Silver plated, copper alloy.

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

8 250 VAC neon

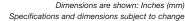
Build-A-Switch

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



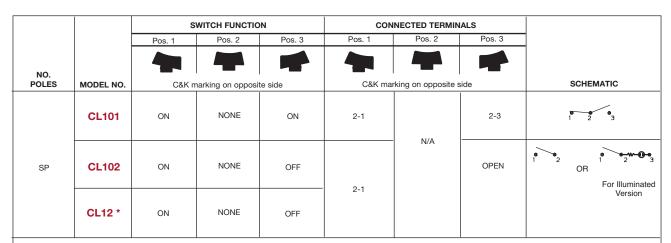




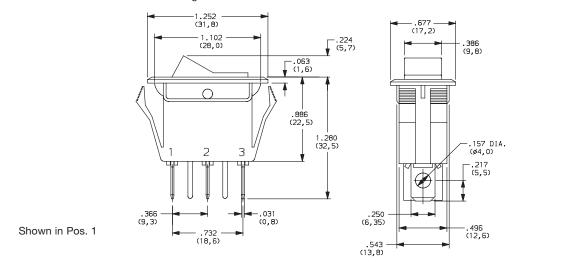


CL Series Single Pole Power Rocker Switches

SWITCH FUNCTION



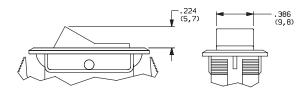
* CL12 - for switches with both marking and illumination



0-00-00-0-0 **ACTUATOR**

J7 ROCKER

J9 ILLUMINATED ROCKER



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

ACTUATOR COLOR ------

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



www.ckswitches.com

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



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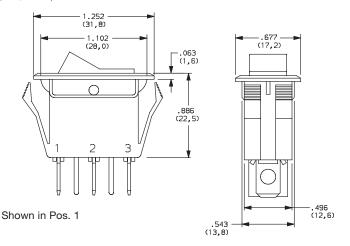
CL Series

Single Pole Power Rocker Switches

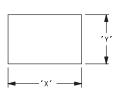


\$2 SNAP-IN, BLACK

\$1 SNAP-IN, WHITE



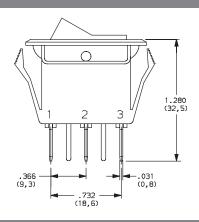
PANEL MOUNTING

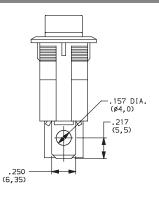


PANEL THICKNESS	"X"	"Y"
0.030-0.049 (0,75-1,25)	1.126004 (28,6-0,1)	0.551+.004 (14,0+0,1)
0.049-0.079 (1,25-2,0)	1.134004 (28,8-0,1)	0.551+.004 (14,0+0,1)
0.079-0.118 (2,0-3,0)	1.150004 (29,2-0,1)	0.551+.004 (14,0+0,1)

TERMINATION -----

05 .250" QUICK CONNECT





Shown in Pos. 1

ACTUATOR MARKING

NONE NO MARKING





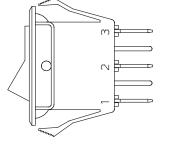


H 01









NOTE: Orientation of actuator marking and terminals.

Shown in Pos. 1





CL Series Single Pole Power Rocker Switches

OPTION CODE	CONTACT AND TERMINAL MATERIAL	RATINGS	
QA	SILVER	POWER	16 AMPS @ 125 VAC; 1/3 HP;
Q/A	J SIEVEIT	l i owen	10 AMPS @ 250 VAC, 1/2 HP

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

CONTACT MATERIAL



LAMP RATING

(NONE) NO LAMP

7 125 VAC 33kΩ NEON

8 250 VAC 150kΩ NEON

NOTE: Lamp rating for J9 actuator option.

CM Series Single Pole Power Rocker Switches

Features/Benefits

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

Typical Applications

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



FL[®]118

Specifications

CONTACT RATING:

16 AMPS @ 125 VAC. 1/8 HP: 10 AMPS @ 250 VAC, 1/3 HP.

ELECTRICAL LIFE: 10,000 make and break cycles at full load. INSULATION RESISTANCE: $10^8 \Omega$ min.

DIELECTRIC STRENGTH: 1,500 VRMS @ sea level. OPERATING TEMPERATURE: -20°C to +80°C

Materials

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

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

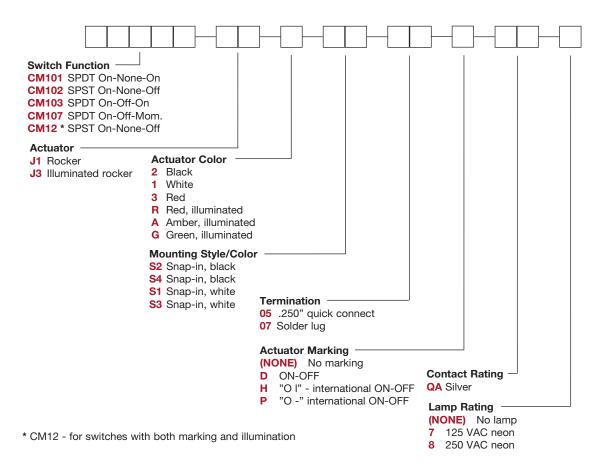
END CONTACTS: Silver plated.

ALL TERMINALS: Silver plated, copper alloy.

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

Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages G-95 through G-97. For additional options not shown in catalog, consult Customer Service Center.



Dimensions are shown: Inches (mm)

www.ckswitches.com



Specifications and dimensions subject to change

CM Series Single Pole Power Rocker Switches

7------**SWITCH FUNCTION**

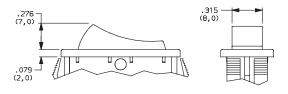
		s	WITCH FUNCTIO	N	CON	INECTED TERMIN	IALS	
		Pos. 1	Pos. 2	Pos. 3	Pos. 1	Pos. 2	Pos. 3	
		4						
NO. POLES	MODEL NO.	C&K	marking on opposi	ite side	C&K ma	arking on opposite	side	SCHEMATIC
	CM101	ON	NONE	ON			2-3	1 2 3
	CM102	ON	NONE	OFF		N/A	OPEN	OR For Illuminated Version
SP	CM103	ОИ	OFF	ON	2-1			1 2 3
	CM107	ON	OFF	мом.		OPEN	2-3	• 2 • 3)
	CM12 *	ON	NONE	OFF		N/A	OPEN	1 2 1 3
	* CM12 - for switches with both marking and illumination .255 (6,5) .709 (18,0) .709 (18,0) .709 (11,0							
Shown i	n Pos. 1		. 429	-1.071 (27,2)	31	.2 ¹ (6,3	◄ ►	118 DIA. (3,0) .421 (10,7)

ACTUATOR

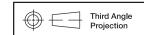
G-92

J1 ROCKER

J3 ILLUMINATED ROCKER



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





ACTUATOR COLOR

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

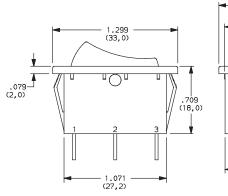
MOUNTING STYLE/COLOR

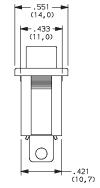
\$2 SNAP-IN, BLACK

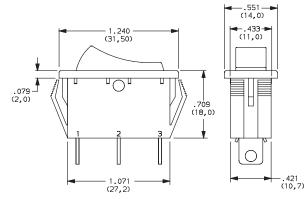
\$1 SNAP-IN, WHITE

\$4 SNAP-IN, BLACK (SHORT FRAME)

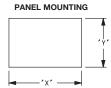
\$3 SNAP-IN, WHITE







Shown in Pos. 1

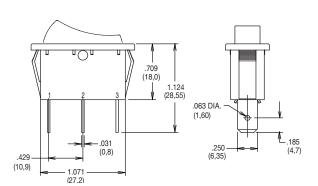


Shown	in	Pos.	1

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

TERMINATION

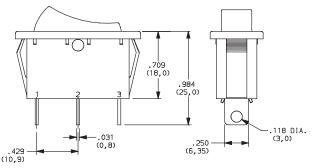
05 .250 QUICK CONNECT



Shown in Pos. 1



G-93



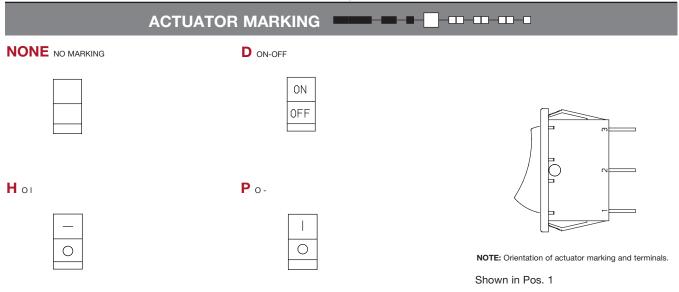
NOTE: Available with CM101 & CM102 switch functions only.





Specifications and dimensions subject to change

CM Series Single Pole Power Rocker Switches



CONTACT MATERIAL

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

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



LAMP RATING

(NONE) NO LAMP

7 125 VAC 33kΩ NEON

8 250 VAC 150kΩ NEON

NOTE: Lamp rating for J3 & J8 actuator option.





CN Series Double Pole Power Rocker Switches

Features/Benefits

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



Typical Applications

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





Specifications

CONTACT RATING:

See table for Q and QA ratings on the last page of this series. ELECTRICAL LIFE: 10,000 make and break cycles at full load.

INSULATION RESISTANCE: $10^8 \Omega$ min.

DIELECTRIC STRENGTH: 1,500 VRMS @ sea level. OPERATING TEMPERATURE: -20°C to +85°C

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

 ${\tt ILLUMINATED}\ {\tt ACTUATOR}.\ {\tt Polycarbonate},\ {\tt matte}\ {\tt finish}.$

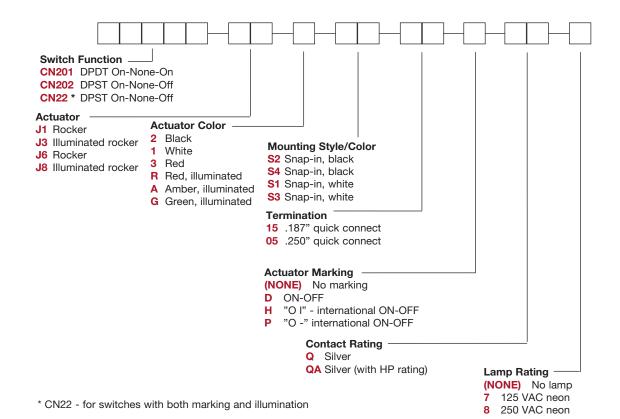
CENTER CONTACTS: Silver plated, copper alloy. END CONTACTS: Silver plated AgSu0₂ln0₃. ALL TERMINALS: Silver plated, copper alloy.

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

Materials

Build-A-Switch

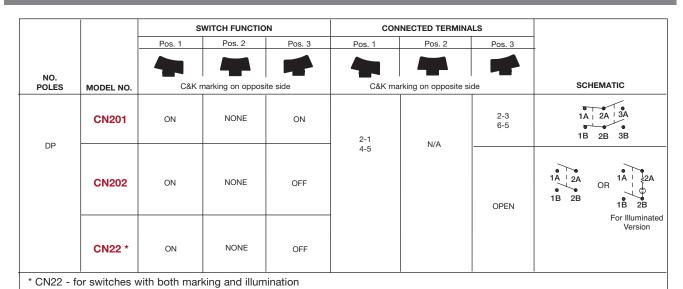
To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages G–99 through G–101. For additional options not shown in catalog, consult Customer Service Center.





CN Series Double Pole Power Rocker Switches

SWITCH FUNCTION



.992 (25,2) .079 (2,0).732 (18,6) .972 (24,7)

.280 (7,1)

1.071

(27, 2)

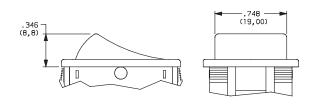
Shown in Pos. 1

ACTUATOR _____

.031 (0,8)

J1 ROCKER

J3 ILLUMINATED ROCKER



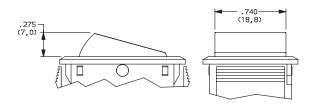
NOTE: J1 & J3 actuators available with Q contact rating only. J3 actuator available with CN202 & CN22 switch function



.394 (10,0)

J8 ILLUMINATED ROCKER

.858 (21,8)



.187 (4,7)

NOTE: J6 & J8 actuators available with QA contact rating only. J6 actuator available with CN201 & CN202 switch functions, J8 actuator available with CN202 & CN22 switch function only.



Dimensions are shown: Inches (mm)



G

CN Series

Double Pole Power Rocker Switches

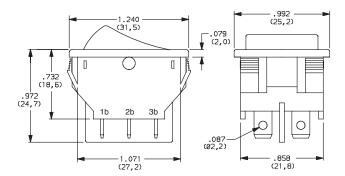
ACTUATOR COLOR _____

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

MOUNTING STYLE/COLOR

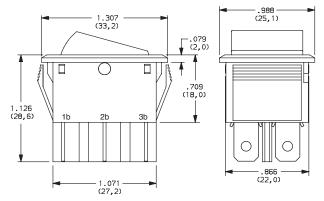
\$2 SNAP-IN, BLACK

S1 SNAP-IN, WHITE



\$4 SNAP-IN, BLACK

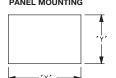
\$3 SNAP-IN, WHITE



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

Shown in Pos. 1

PANEL MOUNTING



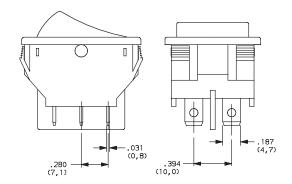
NOTE: Available with 05 termination and QA contact rating only.

Shown in Pos. 1

PANEL THICKNESS	"X"	"Y"
0.030-0.049 (0,75-1,25)	1.190004 (30,2-0,1)	0.874+.004 (22,2+0,1)
0.049-0.079 (1,25-2,0)	1.197004 (30,4-0,1)	0.874+.004 (22,2+0,1)
0.079-0.118 (2,0-3,0)	1.213004 (30,8-0,1)	0.874+.004 (22,2+0,1)

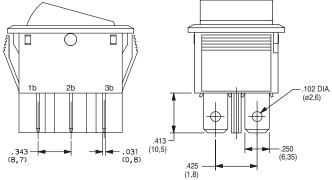
TERMINATION

15 .187" QUICK CONNECT



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

05 .250" QUICK CONNECT



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

Shown in Pos. 1





CN Series Double Pole Power Rocker Switches

ACTUATOR MARKING D ON-OFF ON 2b **P** o -

CONTACT MATERIAL

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

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



LAMP RATING

(NONE) NO LAMP

NONE NO MARKING

 \bigcirc

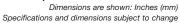
H 01

7 125 VAC 33kΩ NEON

8 250 VAC 150kΩ NEON

NOTE: Lamp rating for J3 & J8 actuator options.





NOTE: Orientation of actuator marking and terminals.

Shown in Pos. 1



CA Series Power Rocker Switches

Features/Benefits

- 15 AMPS @ 125 V AC
- Cosmetic slimline detail
- Positive detent

Typical Applications

- Hair dryers and other small appliances
- HVAC and other large appliances
- RoHS compliant





Specifications

CONTACT RATING: 15 AMPS @ 125 V AC;

10 AMPS @ 250 V AC:

1/4 HP @ 125 V AC or 250 V AC

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: -30°C to +65°C

Materials

HOUSING: 6/6 nylon (UL 94V-2), black.

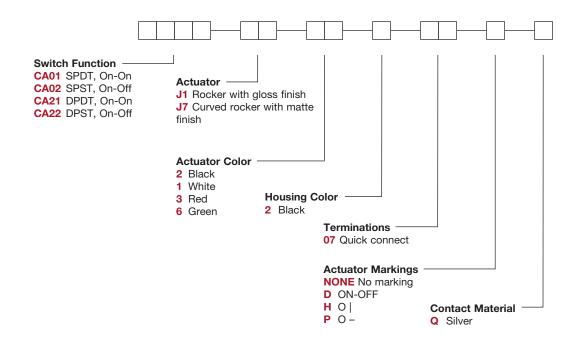
ACTUATOR: Polycarbonate (UL 94V-2), black.

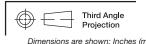
CONTACTS: Coin silver, silver plated. TERMINALS: Copper, silver plated. CONTACT SPRING: Music wire.

NOTE: Specifications and material 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–106 through G–108. For additional options not shown in catalog, consult Customer Service Center.



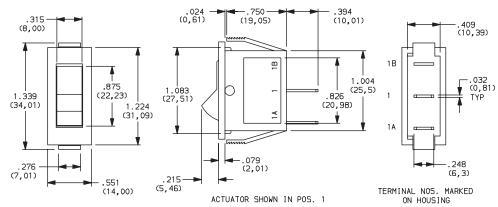




SWITCH FUNCTION

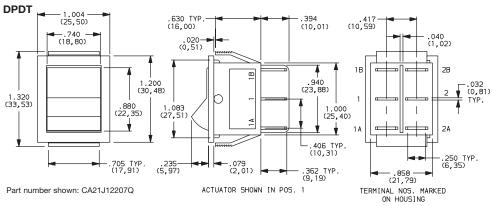
		SWITCH FUNCTION		CONNECTED TERMINALS		
		POS. 1	POS. 2	POS. 1	POS. 2	
NO. POLES	MODEL NO.		4		4	SCHEMATIC
SP	CA01	ON	ON	1-1A	1-1B	SPDT 1A 1B
	CA02	ON	OFF	1-1A	OPEN	SPST 1A 1

SPST



Part number shown: CA02J12207Q





For complete contact ratings and agency approvals, see CONTACT MATERIAL section, page G-108. Contacts make on side opposite actuator thrown.

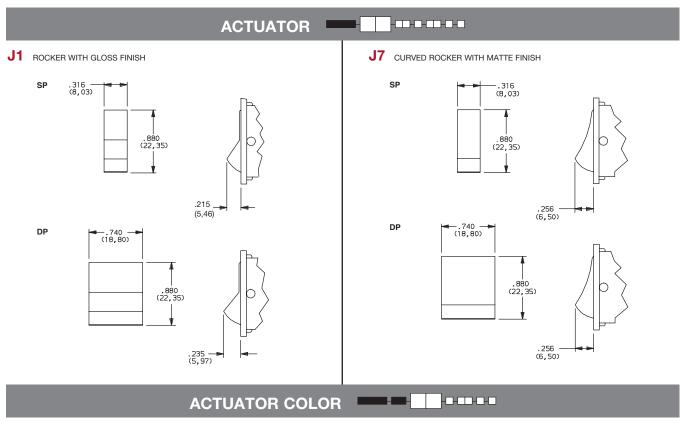
All models call with all options.





G

CA Series Power Rocker Switches



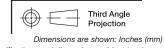
OPTION CODE	OPAQUE ACTUATOR COLOR	
1	WHITE	
2	BLACK	
3	RED	
6	GREEN	

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

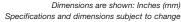
HOUSING COLOR

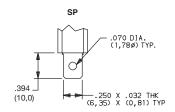
OPTION	HOUSING
CODE	COLOR
2	BLACK

NOTE: Housing frame finish: matte.

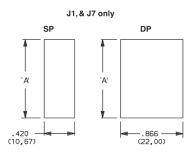








PANEL MOUNTING



PANEL THICKNESS	DIM 'A'
.059078	1.102
(1,50) (2,00)	(28,00)
.078118	1.110
(2,00) (3,00)	(28,20)
.118–.177	1.126
(3,00) (4,50)	(28,60)

ACTUATOR MARKINGS

NONE NO MARKING





P 0-

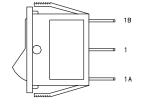




Marking color white, standard for all actuator colors except white and yellow. Marking color black, standard for white and yellow actuators. Consult Customer Service Center for other available markings and colors.







NOTE: Orientation of actuator markings and terminals

CONTACT MATERIAL

OPTION CODE	CONTACT AND TERMINAL MATERIAL		RATINGS	
_			10 AMPS @ 250 VAC	577°
Q	SILVER ¹	POWER	15 AMPS @ 125 VAC	c FL °us
			1/4 HP 125/250 VAC	

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

¹ CONTACTS: Coin silver, silver plated. TERMINALS: Copper, silver plated.

All models c N with all options.







CA Series Illuminated Power Rocker Switches

Features/Benefits

- 15 AMPS @ 125 V AC
- Illuminated actuator
- Various actuator styles

Typical Applications

- Power outlet strips
- Appliances
- Handling and packaging machines
- RoHS compliant





Specifications

CONTACT RATING: 15 AMPS @ 125 V AC; 10 AMPS @ 250 V AC; 1/4 HP @ 125 V AC or 250 V AC.

ELECTRICAL LIFE: 10,000 make-and-break cycles at full load.

LAMP LIFE: 20,000 hours typ.

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

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

Materials

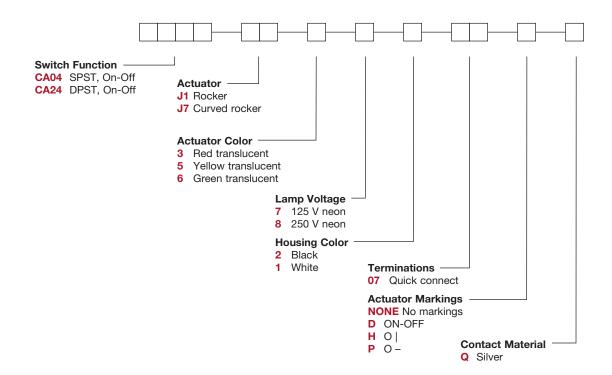
HOUSING: 6/6 nylon (UL 94V-2), black. ACTUATOR: Polycarbonate (UL 94V-2), red. CONTACTS: Coin silver, silver plated.

OPERATING TEMPERATURE: -30°C to +65°C

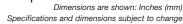
NOTE: Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

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–103 through G–105. For additional options not shown in catalog, consult Customer Service Center.



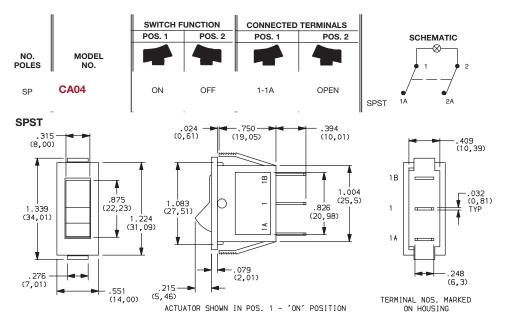






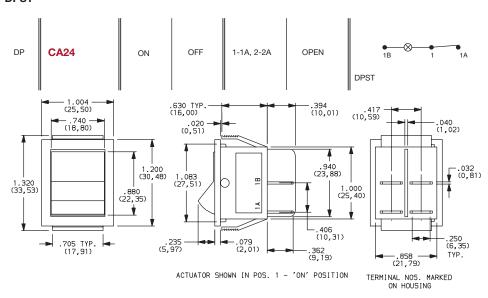
CA Series Illuminated Power Rocker Switches

SWITCH FUNCTION



Part number shown: CA04J137207Q

DPST



Part number shown: CA24J137207Q

See CONTACT MATERIAL section, page G-105, for complete contact ratings and agency approvals. Contacts make on side opposite actuator thrown.

All models c us with all options.



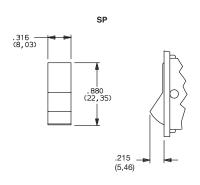


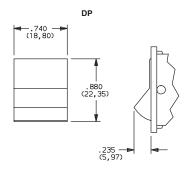
Rocker

CA Series Illuminated Power Rocker Switches

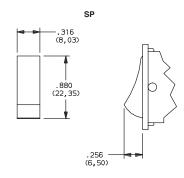
ACTUATOR -----

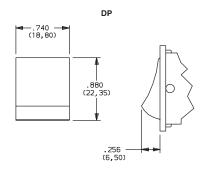
J1 ROCKER





J7 CURVED ROCKER





ACTUATOR COLOR

NEON LAMP VOLTAGE

7 125 V NEON

8 250 V NEON

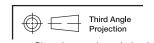
OPTION CODE	ACTUATOR COLOR		
3	RED TRANSLUCENT		
5 YELLOW			
6	GREEN		

NOTE: Special colors available, consult Customer Service Center.

HOUSING COLOR

OPTION CODE	HOUSING COLOR
2	BLACK
1	WHITE

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

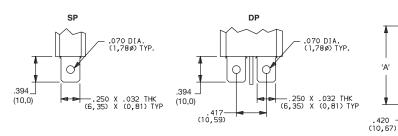




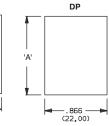
TERMINATIONS

'A'

07 QUICK CONNECT







PANEL THICKNESS	DIM 'A'
.059–.078	1.102
(1,50) (2,00)	(28,00)
.078118	1.110
(2,00) (3,00)	(28,20)
.118177	1.126
(3,00) (4,50)	(28,60)

ACTUATOR MARKINGS

NONE NO MARKING





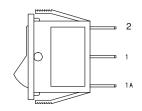








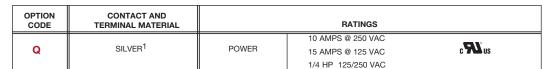




NOTE: Orientation of actuator markings and terminals

Marking color white, standard for all actuator colors except yellow. Marking color black, standard for yellow actuators. Consult Customer Service Center for other available markings and colors.

CONTACT MATERIAL



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

All models call with all options.

¹ CONTACTS: Coin silver, silver plated. TERMINALS: Copper, silver plated.

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