Slide	1		Tels				*
Series	ES	TS	1000	GS	L	LP	s
Switch Type	Tiny	Tiny	Miniature	Ultra- miniature	Miniature	Miniature	Power
Poles	1 & 2	1	1 & 2	1	1 & 2	1 & 2	1 & 2
Momentary			•		•		•
Process Sealed	•			•			
Splashproof	•				•		
Screwdriver Slot					•		•
Housing Marking						•	•
Tape & Reel	•			•			
Max. Current	0.4 VA	3 A	6 A	0.4 VA	4 A	11A	15 A
Terminations							
Wire Wrap		•	•		•		
Quick Connect			•				•
Wire Lead					•	•	•
Solder Lug			•		•	•	•
PC	•	•	•	•	•		•
PCB Mount Options							
Thru-hole	•	•	•	•	•	•	•
Vertical	•	•	•	•	•	•	•
Right Angle	•	•	•	•			•
Surface Mount	•			•			
Panel Mount Options	3				1	ı	
Snap-in						•	•
Mounting Ears			•		•		•
Right Angle	•	•	•	•			•
Page No.	J-4	J-8	J-11	J-17	J-19	J-25	J-28



- Variety of actuators and terminations
- Panel mount tabs available
- Epoxy terminal seal—compatible with bottom-wash cleaning
- RoHS compliant



Typical Applications

- Test & measurement equipment
- **Telecommunications**
- Computer & peripherals



Specifications

CONTACT RATING: B contact material: 0.4 VA max. @ 20 V AC or DC max. Q contact material: 6 AMPS @ 120 V AC or 28 V DC, 3 AMPS @ 250 V AC. See page J-15 for additional ratings.

ELECTRICAL LIFE: 100,000 make-and-break cycles at full load on models with B. K or P contact material: 40.000 cycles on models with G, Q, L, M, S or R contact material.

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: 1,000 Vrms min. @ sea level.

OPERATING TEMPERATURE: -30°C to 65°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.

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 I-16 for additional contact materials.

CENTER CONTACT & ALL TERMINALS: B contact material: Copper alloy, with gold plate over nickel plate. Q contact material: Copper alloy, silver plated. See page J-16 for additional contact materials.

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

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

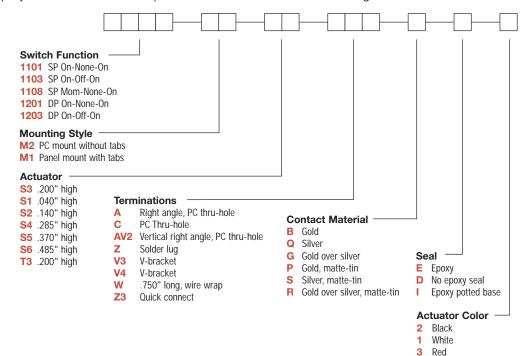
NOTE: Specifications and materials listed above are for switches with standard options.

For information on specific and custom switches, consult Customer Service Center.

7 Blue

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 J-12 through J-16. 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.





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

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SWITCH FUNCTION -----

	SWITCH FUNCTION CONNECTED TERMINALS		ALS						
		POS. 1	POS. 2	POS. 3	POS. 1	POS. 2	POS. 3		
NO. POLES	MODEL NO.	•	4	_	4	4		SCHEMATIC	
	1101	ON	NONE	ON		N/A			
SP	1103	ON	OFF	ON	1-2	OPEN	2-3	0 2 (COMM) 1	
	1108	мом.	NONE	ON		N/A		SPDT	
SPD1	mber shown: 1101M	ir	tuator shown	.200 - (5,08) 085 2,16) RAVEL .152 SQ (3,86)		.030 1 (0,76) .185 TYP. (4,70) .185 TYP. (4,70) .185 TYP. (4,70) .185 TYP. (4,70) .185 TYP.	,500 (12,70) 2 (12,70) 2 (1,27) TERM. WIDTH	.260 (6,60)	
DP	1201	ON	NONE	ON	0.45.4	OPEN	2-3,5-6	1 0 2 (COMM) 5 0 4 0 6	
DP	1203	ON	OFF	ON	2-1,5-4			DPDT 1 • / • 3 4 • / • 6	
DPD	г	,	Actuator shown in position 1	(5,08 (2,16) TRAVEL .152 5 (3,86)		.060 (1,52) EPOXY SE .0 (0, .185 TYP. (4,70) .185 TYP. (4,70) .185 TYP. (4,70)	30 TYP. ,76) 6 ,500 (12,70) 5 ,4 ARKING 6IDE .190 TYP. (4,83) .050 TYP. (1,27) TERM. W	P.—	

All models with all options when ordered with G, L, M, S or R contact material.



M2 PC MOUNTING WITHOUT TABS

Part number shown: 1201M2S3CQE2



NOTE: Available with A, AV2, C, V3, V4, W terminations only.

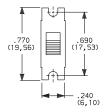
PANEL MOUNTING WITH TABS



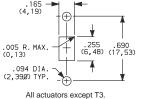
Terminal Nos.

For Reference Only

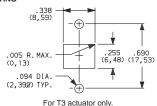
NOTE: Available with C, W, Z, Z3 terminations only. No mounting hardware supplied.







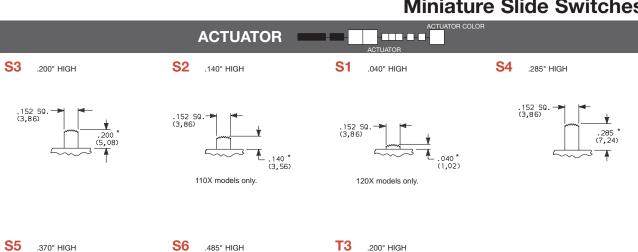
All actuators except T3. Single pole

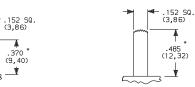


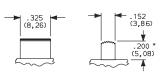
For T3 actuator only. Double pole









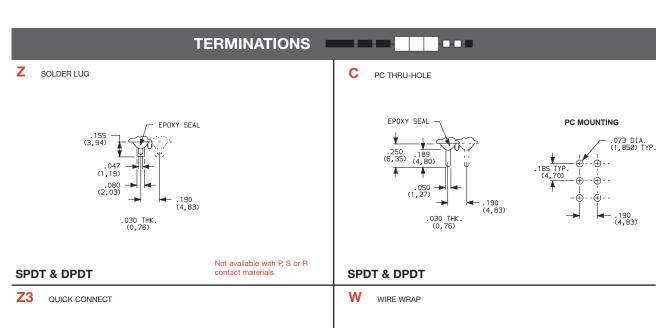


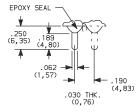
120X models only.

OPTION CODE	ACTUATOR COLOR		
2	BLACK		
1	WHITE		
3	RED		
7	BLUE		
9	GRAY		

Other colors available, consult Customer Service Center.

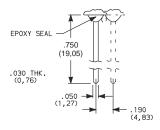
* Subtract .014 (0,36) from actuator height, all mod	dels with A, AV2, V3, V4 terminations.
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SPDT & DPDT

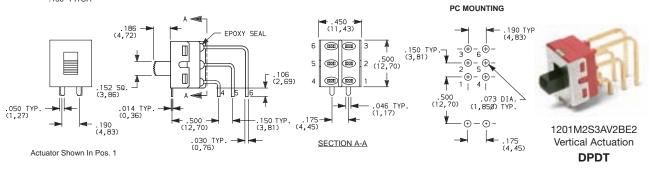
Not available with P, S or R contact materials. Mating quick connector available; order part number 530100000, page J-15.



SPDT & DPDT

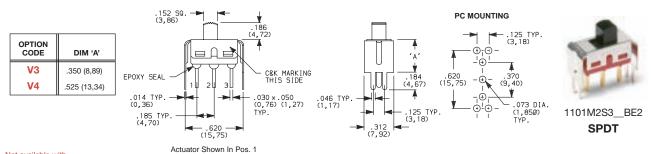






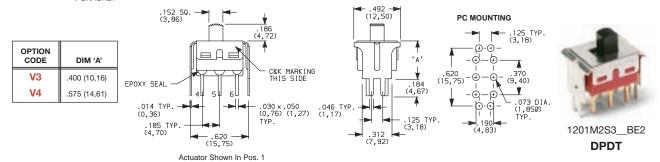
Not available with M1 mounting style, I seal option. Terminal bend radii and lead-in manufacturing option.

V3, V4 VERTICAL MOUNT. V-BRACKET



Not available with M1 mounting style and I seal.

V3, V4 VERTICAL MOUNT, V-BRACKET

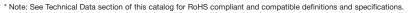


Not available with M1 mounting style and I seal.



CONTACT MATERIAL

OPTION CODE	CONTACT MATERIAL	TERMINAL PLATING	RATINGS		
В	GOLD ¹	GOLD ³	LOW LEVEL/		
Р	GOLD .	MATTE-TIN ⁶		0.4 VA MAX. @ 20 V AC OR DC MAX.	
Q	SILVER ^{4,5}	GOLD ³	POWER	6 AMPS @ 120 V AC OR 28 V DC: 3 AMPS @ 250 V AC.	
S	SILVEN "	MATTE-TIN ⁶	FOWER	0 ANI 0 @ 120 V AO 011 20 V BO, 0 ANI 0 @ 230 V AO.	
G	GOLD OVER SILVER ^{2,3}	GOLD ³ MATTE-TIN ⁶	LOW LEVEL/DRY CIRCUIT OR POWER	0 4 VA MAX @ 20 V AC OR DC MAX OR 6 AMPS @ 120 V AC OR 0.4 MAX. 28 V DC; 3 AMPS @ 250 V AC.	



- ¹ CONTACTS & TERMINALS: Copper alloy, with gold plate over nickel plate.
- $^{2}\ \mbox{END}$ CONTACTS: Coin silver, with gold plate over nickel plate.
- ³ CENTER CONTACTS & ALL TERMINALS: Copper alloy, with gold plate over nickel plate.
- ⁴ END CONTACTS: Coin silver, silver plated.
- ⁵ CENTER CONTACT & ALL TERMINALS: Copper alloy, silver plated.
- $^{\rm 6}$ TERMINALS: Copper alloy, with matte-tin over nickel plate.

 $\mbox{NOTE:}$ Any models supplied with Q, B, G, P, S or R contact material are RoHS compliant.

All models $_{\odot}$ With all options when ordered with G, L, M, Q, S or 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 or R contact materials not available with Z, Z3 terminations.

K, L and M options represent Non RoHS tin lead product and are not recommended for new designs. For additional information please contact Customer Service.

E EPOXY SEAL D NO EPOXY SEAL EPOXY SEAL EPOXY SEAL EPOXY SEAL OF MAX. (1,91) NOTE: Available with C, W, W3, Z, Z3 terminations only.

AVAILABLE HARDWARE

Fits Z3 Termination female connector



PART NO.

530100000

Available in loose pieces.



