

10,11,12 Series

Standard Dip Switches

SPECIFICATIONS

MECHANICAL

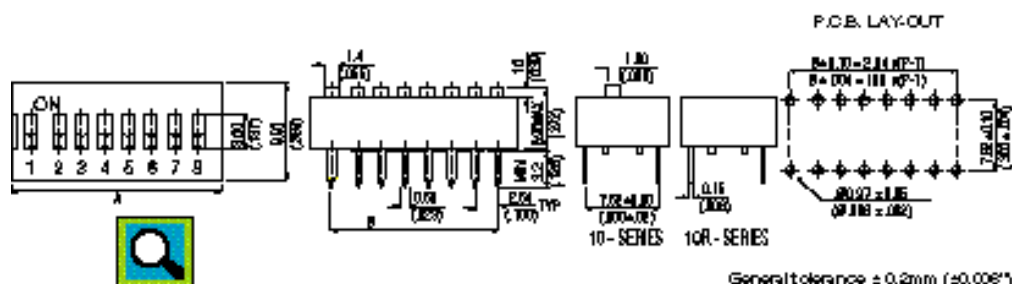
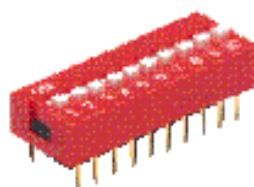
Mechanical life: 2000 operations per switch.
 Operation force: 400gf max. (12 series).
 1000gf max. (10 & 11 series).
 Stroke: 2.0mm.
 Operation temp: -20 °C to 70 °C.
 Storage temp: -40 °C to 85 °C.
 Vibration test: MIL-STD-202F method 201A.
 Frequency: 10-55-10Hz/1 min.
 Directions: X, Y, Z, three mutually perpendicular directions.
 Time: 2 hours each direction.
 High reliability.
 Shock test: MIL-STD-202F method 213B. Condition A.
 Gravity: 50G (peak value), 11 m/sec.
 Direction and times: 6 sides and 3 times in each direction. High reliability.

ELECTRICAL

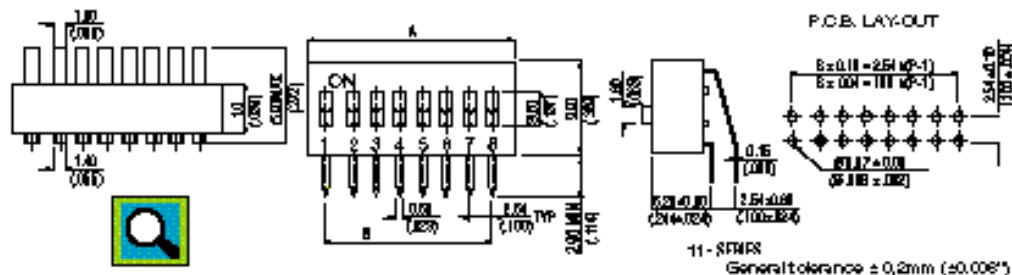
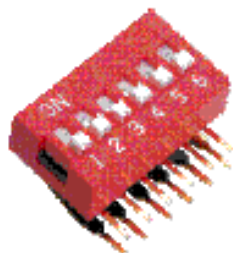
Electrical life: 2000 operations per switch 24VDC, 25mA.
 Non-switching rating: 100mA, 50VDC.
 Switching rating: 25mA, 24VDC.
 Contact resistance: 50mΩ max. at initial.
 Insulation resistance: (at 500VDC) 100MΩ min.
 Dielectric strength: 500VAC/1 minute.
 Capacitance: 5pF max.
 Circuit: single pole single throw.
 Marking: special side or top marking optional.
MATERIALS
 Base: UL94V-0 PBT thermoplastic, black.
 Cover: UL94V-0 PBT thermoplastic, red, black, blue.
 Actuators: UL94V-0 PBT thermoplastic, white.
 Contact: phosphor bronze with gold plating over nickel.
 Top seal: polyester film.
 Potting material: epoxy.

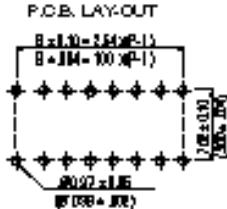
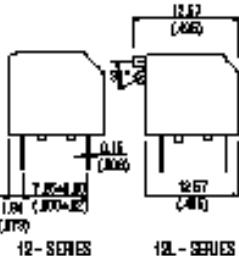
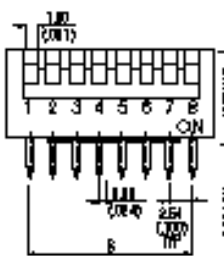
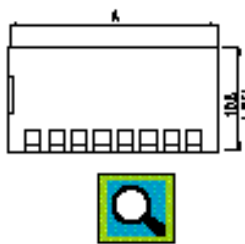
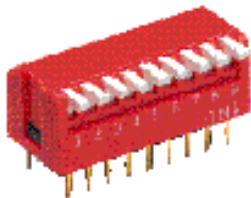
- ◆ LOW CONTACT RESISTANCE
- ◆ HIGH RELIABILITY
- ◆ SELF-CLEANING CONTACTS

MODEL 10



MODEL 11





General tolerance $\pm 0,2mm (\pm 0,008")$

SWITCHES

10,11,12 Series

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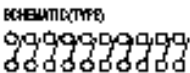
SOLDERING AND CLEANING PROCESSES

For best results, please follow these recommendations:
Keep all switch contacts in their“OFF” position for all operations.
Wave soldering: recommended solder temperature at 500 F (260 °C) max. 5 seconds.
Hand soldering: use a soldering iron of 30 Watts or less, controlled at 608 °F (320 °C) approximately 2 seconds while applying solder.
Cleaning process: flux clean using force rinse, high agitation or triple bath cleaning method.
Freon TF or TE give excellent results. When vapor methods are used, do not subject the switch to solvents at temperature above 125 °F (51 °C).

Care should be exercised so that flux from the upper part of the printed circuit board does not adhere to the switch.
Do not clean the switch body except with top tape sealed type, which can only spray of cleaning method from top s/w.

DIMENSIONS

MODEL			NO. OF POS.	DIM L2	DIM L1
10	11	12			
10 -12	11-12	12 -12	12	32.04 (1.254)	31.84 (1.254)
10R-12		12L-12			
10 -10	11-10	12 -10	10	26.96 (1.061)	26.76 (1.054)
10R-10		12L-10			
10 -09	11-09	12 -09	9	24.42 (.961)	24.22 (.954)
10R-09		12L-09			
10 -08	11-08	12 -08	8	21.88 (.861)	21.68 (.854)
10R-08		12L-08			
10 -07	11-07	12 -07	7	19.34 (.761)	19.14 (.754)
10R-07		12L-07			
10 -06	11-06	12 -06	6	16.80 (.661)	16.60 (.654)
10R-06		12L-06			
10 -05	11-05	12 -05	5	14.26 (.561)	14.06 (.554)
10R-05		12L-05			
10 -04	11-04	12 -04	4	11.72 (.461)	11.52 (.454)
10R-04		12L-04			
10 -03	11-03	12 -03	3	9.18 (.361)	8.98 (.354)
10R-03		12L-03			
10 -02	11-02	12 -02	2	6.64 (.261)	6.44 (.254)
10R-02		12L-02			



HOW TO ORDER

Model	Actuator	Number of pos	Color of cover	On/Off Position	Seal
10 = Slide Type Dip Switch 11 = Right Angle Type Dip Switch 12 = Piano Type Dip Switch	Type 10 X = Raised Actuator R = Recessed Actuator Type 11 X = Raised Actuator Type 12 X = Short Key L = Long Key	02 = 2 positions 03 = 3 positions 04 = 4 positions 05 = 5 positions 06 = 6 positions 07 = 7 positions 08 = 8 positions 09 = 9 positions 10 = 10 positions 11 = 11 positions 12 = 12 positions	X = RED B = BLUE K = BLACK	X = Push Down On U = Push Down Off <i>U Only For 12(L)</i>	X = Regular S = Top Tape Seal

Specifications are subject to change without notice

