## DIP Switches

Machine Insertable Type DIP Switches


## How to order:

| RSNT |  | 1 | 2 |
| :---: | :---: | :---: | :---: |
|  |  |  |
| $\begin{aligned} & 1 \\ & \text { RA } \\ & \text { RC } \end{aligned}$ | ACTUATOR TYPE: Raised Actuator Recessed Actuator |  |  |
| 2 | NO. OF POSITIONS: |  |  |
| CODE | NO. of POS |  | DIM.A | DIM.B |
| 01 | 1 Pos. | 3.84(0.151) | - |
| 02 | 2 Pos. | 6.08(0.239) | $2.54(0.100)$ |
| 03 | 3 Pos. | 8.92(0.351) | 5.08(0.200) |
| 04 | 4 Pos. | 11.16(0.439) | $7.62(0.300)$ |
| 05 | 5 Pos. | 13.70(0.539) | 10.16(0.400) |
| 06 | 6 Pos. | 16.24(0.639) | 12.700(0.500) |
| 07 | 7 Pos. | 19.08(0.751) | 15.24(0.600) |
| 08 | 8 Pos. | 21.32(0.839) | 17.78(0.700) |
| 09 | 9 Pos. | 24.16(0.951) | 20.32(0.800) |
| 10 | 10 Pos. | 26.40(1.039) | $22.86(0.900)$ |
| 12 | 12 Pos. | 31.48(1.239) | 27.94(1.100) |

## Material:



CONSTRUCTION

| ITEM | DES | MATERIALS | TREATMENT |
| :---: | :---: | :---: | :---: |
| 1 | ACTUATOR | UL.94V-0 PBT <br> THERMOPLASTIC | WHITE |
| 2 | COVER | UL94V-0 PBT <br> THERMOPLASTIC | BLUE, RED.BLACK |
| 3 | BASE | UL94V-0 PBT <br> THERMOPLASTIC | BT.ACK |
| 4 | TERMINAL | PHOSPHOR BRONZE | GOLD PLATING |
| 5 | POTTING | EXPOXY | BLACK |

## SPECIFICATIONS

1. SPECIFICATIONS.

1-1. External appearance: Ref. Attached print.
1-2. Material \& treatment of parts: Ref. Attached print.
1-3. All materials are UL 94V-0 grade fire retardant plastics.
1-4. RoHS compliant.

## 2. FEATURES

2-1. This switch is slide switch of one body type that each pole is parallel and it is constituted by one moving contact and two terminals.
2.2 Terminal plating by gold give excellent results when soldering.

2-3. DX1819RA series (raised actuator) and DX1819RC series (recessed actuator) available for different purposes.
2-4. Low contact resistance, and self-clean on contact area.
2-5. High reliability.

## 3. ELECTRICAL

3-1. Electrical Life: 2000 operation cycles per switch- 24VDC, 25 mA .
3-2. Non-switching Rating: 100mA, 50VDC.
3-3. Switching Rating: 25mA, 24VDC.
3-4. Contact Resistance: (a) $50 \mathrm{~m} \Omega$ max. at initial.
(b) $100 \mathrm{~m} \Omega$ max. after life test.

3-5. Insulation Resistance: $100 \mathrm{M} \Omega \mathrm{min}$. at 500 VDC .
3-6. Dielectric Strength: 500VAC/1 minute.
3-7. Capacitance: 5pF max.
3-8. Circuit: Single pole single throw.

## 4. MECHANICAL

4-1. Mechanical life: 2000 operations per switch.
4-2. Operation Force: 800gf max.
4-3. Stroke: 2.0 mm .
4-4. Operation Temp: $-25^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$
4-5. Storage Temp: $-40^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}$
4-6. Vibration Test: MIL-STD-202F METHOD 201A
Frequency: $10-55-10 \mathrm{~Hz} / 1 \mathrm{~min}$
Directions: X, Y, Z, three mutually perpendicular directions.
Time: 2 hours each direction.
High reliability.
4-7. Shock Test: MIL-STD-202F METHOD 213B CONDITION A.
4-8. Gravity: 50 G (peak value), 11 msec.
4-9.Direction and times: 6 sides and 3 times in each direction. High reliability.
5. SOLDERING PROCESSES.

5-1. Keep all switch contacts in their "OFF" position for all operation.
$5-2$. Wave soldering: Recommended solder temperature at $500^{\circ} \mathrm{F}\left(260^{\circ} \mathrm{C}\right)$ max. 5 seconds.
5-3. Hand soldering: Use a soldering iron of 30 watts or less,
controlled at $608^{\circ} \mathrm{F}\left(320^{\circ} \mathrm{C}\right)$, approximately 2
seconds while applying solder.
6. FLUX CLEANING :

6-1. Solvent: Fluorine or Alcohol type.
6-2. Cleaning shall be made when terminal temperature falls to $90^{\circ} \mathrm{C}$ or lower, or leave the switch at normal temperature for 5 minutes or longer, before cleaning.
6-3. Do not apply ultrasonic cleaning.
6-4. "LE" type are not washable.
6-5. Do not operate the switch during soldering and cleaning.
7. WEATHER-PROFF

7-1. Resistance Low Temperature:
(1) Temperature: $-40^{\circ} \mathrm{C} \pm 3^{\circ} \mathrm{C}$
(2) Time: 96 hours.

7-2. Resistance High Temperature:
(1) Temperature: $-85^{\circ} \mathrm{C} \pm 2^{\circ} \mathrm{C}$
(2)Time: 96 hours.

7-3. Resistance Humidity:
(1)Temperature: $40^{\circ} \mathrm{C} \pm 2^{\circ} \mathrm{C}$
(2)Relative Humidity: 90-95\%
(3)Time: 96 hours.

