multicomppro


## Specifications

| Contact Rating | $: 0.4$ Volt-Amps (VA) Max. at 20V AC or DC Max. |
| :--- | :--- |
| Mechanical Life | $: 40,000$ make-and-break cycles. |
| Contact Resistance | $:$ Below $100 \mathrm{~m} \Omega$ typical at 2 to 4 V DC, 100 mA |
| Min. Insulation Resistance | $: 500 \mathrm{M} \Omega$ |
| Dielectric Strength | $: 500 \mathrm{~V}$ RMS at sea level |
| Operating Temperature | $:-30^{\circ} \mathrm{C}$ to $85^{\circ} \mathrm{C}$ |
| Materials: |  |
| Actuator | $:$ Glass filled nylon $6 / 6$, heat stabilized, |
| with standard internal o-ring seal. |  |
| Housing and base | $:$ Glass filled nylon 66 or $4 / 6$, heat stabilized. |
| Switch Support | $:$ Brass or steel, tin plated. |

Switch Function

| Number of Poles | Model Number | Switch Function |  |  | Connected Terminals / Schematic |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Position 1 | Position 2 | Position 3 | Position 1 | Position 2 | Position 3 |
|  |  | 1 | d | 1 | 1. | d | d |
| SP | 2US1 | On | None | On | $\stackrel{5}{4}-6_{6}^{6}$ |  | $\begin{gathered} 5-4 \\ 4^{5} \cdot 6 \end{gathered}$ |
|  | 2US2 |  |  | Mom |  | N/A |  |
|  | 2US3 |  | Off | On |  | Open |  |
| DP | 2UD1 | On | None |  |  | N/A | $2\left(\begin{array}{c} 2-1,5-4 \\ 1 \end{array} \frac{5}{4}\right.$ |
|  | 2UD2 |  |  | Mom |  |  |  |
|  | 2UD3 | On | Off | On |  | Open |  |

MOM = Momentary

## Pole Options

M2RE


SPDT


PCB Mounting


# Toggle Switches <br> Ultra-Minature - Sealed 

multicomp pro

M2RE
DPDT


M6RE
SPDT


M6RE
DPDT


M7RE
SPDT


PCB Mounting


Dimensions : Millimetres (Inches)

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M7RE



PCB Mounting


Dimensions: Millimetres (Inches)

## Soldering Process

Manual Soldering : Use soldering iron of 30 watts, controlled at $350^{\circ} \mathrm{C}$ approximately 5 seconds while applying solder. Wave Soldering
Recommended soldering temperature $: 260 \pm 5^{\circ} \mathrm{C}$.
Duration of solder immersion: Max. 5 s (PCB is 1.6 mm in thickness).
Soldering
: Vapour phase

| Temperature Profile |  |  |
| :---: | :---: | :---: |
| Zone | Room Temperature <br> $\left({ }^{\circ} \mathrm{C}\right)$ | Time <br> (Seconds) |
| Pre-heat (A) | $150^{\circ} \mathrm{C}$ | Minimum 120 |
| Soak (B) | $180^{\circ} \mathrm{C}$ to $200^{\circ} \mathrm{C}$ | Minimum 150 |
| Peak (C) | $200^{\circ} \mathrm{C}$ to $235^{\circ} \mathrm{C}$ | Minimum 30 |
| Peak (D) | $235^{\circ} \mathrm{C}$ to $260^{\circ} \mathrm{C}$ | Minimum 40 |
| Peak (E) | $260^{\circ} \mathrm{C}$ | Maximum 10 |



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## Part Number Explanation

| 2MS4 | T2 | B2 | M2 | R | E |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  | I |
| Model <br> Number | Actuator | Bushing | Terminations | Contact Material | Seal | RoHS Compliant |


| Model Number | : 2US1 = SP On-None-On, 2US2 = SP On-None-Mom, 2 US3 = SP On-Off-On, 2UD1 = DP On-None-On, 2UD2 = DP On-None-Mom and 2UD3 = DP On-Off-On. |
| :---: | :---: |
| Actuator | : T1 = 3.80 High (std). |
| Bushing | : A1 = 1.60 High (std). |
| Terminations | : M2 = PVC Through Hole, M6 = Right Angle, PVC Through Hole and M7 = Vertical Right Angle, PVC Through Hole. |
| Contact Material | : $\mathrm{R}=$ Gold. |
| Seal | : E = Epoxy (std). |

Part Number Table

| Description | Part Number |
| :---: | :---: |
| Switch, Ultraminiature, SPDT, On-Mom | 2US2T1A1M2RE |
| Switch, Ultraminiature, SPDT, On-On | 2US1T1A1M2RE |
| Switch, Ultraminiature, SPDT, On-Off-On | 2US3T1A1M2RE |
| Switch, Ultraminiature, DPDT, On-Mom | 2UD2T1A1M2RE |
| Switch, Ultraminiature, DPDT, On-On | 2UD1T1A1M2RE |
| Switch, Ultraminiature, DPDT, On-Off-On | 2UD3T1A1M2RE |
| Switch, Ultraminiature, Horizontal R/A, SPDT, On-Mom | 2US2T1A1M6RE |
| Switch, Ultraminiature, Horizontal R/A, SPDT, On-On | 2US1T1A1M6RE |
| Switch, Ultraminiature, Horizontal R/A, SPDT, On-Off-On | 2US3T1A1M6RE |
| Switch, Ultraminiature, Horizontal R/A, DPDT, On-Mom | 2UD2T1A1M6RE |
| Switch, Ultraminiature, Horizontal R/A, DPDT, On-On | 2UD1T1A1M6RE |
| Switch, Ultraminiature, Horizontal R/A, DPDT, On-Off-On | 2UD3T1A1M6RE |
| Switch, Ultraminiature, Vertical R/A, SPDT, On-Mom | 2US2T1A1M7RE |
| Switch, Ultraminiature, Vertical R/A, SPDT, On-On | 2US1T1A1M7RE |
| Switch, Ultraminiature, Vertical R/A, SPDT, On-Off-On | 2US3T1A1M7RE |
| Switch, Ultraminiature, Vertical R/A, DPDT, On-Mom | 2UD2T1A1M7RE |
| Switch, Ultraminiature, Vertical R/A, DPDT, On-On | 2UD1T1A1M7RE |
| Switch, Ultraminiature, Vertical R/A, DPDT, On-Off-On | 2UD3T1A1M7RE |

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