

# ULTRA-MINIATURE MICRO-SWITCH

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1. Switch Name : Miniature Micro Switch.
  2. Part No. : SSM-001R-1.
  3. Rating : 30 VDC 500 mA
  4. Operating temperature :  $-40^{\circ}\text{C} \sim +70^{\circ}\text{C}$ .
  5. Mechanical performance :
    - 5.1 Dimension : Please see the drawing.
    - 5.2 Operating force : 50gf (MAX).
    - 5.3 Soldering iron :  
Soldering Temperature :  $240^{\circ}\text{C} \pm 5^{\circ}\text{C}$ , about 3 seconds.
  6. Electronical performance :
    - 6.1 Contact resistance :  $100\text{m}\Omega$  (MAX).
    - 6.2 Insulation resistance : more than  $100\text{M}\Omega$ , at 500VDC.
    - 6.3 Withstanding voltage : AC 250V , 1 minute.
  7. Environmental test :
    - 7.1 Resistibility to head :  
Placed in a chamber at  $75 \pm 2^{\circ}\text{C}$  for 96 hours and then cooled in normal temperature and humidity for an hour.
    - 7.2 Resistibility to cold :  
Placed in a chamber at  $-40 \pm 2^{\circ}\text{C}$  for 96 hours and then cooled in normal temperature and humidity for an hour.
    - 7.3 Resistibility to humidity :  
Placed in a chamber at  $40 \pm 2^{\circ}\text{C}$  and 90~95% RH for 96 hours and then cooled in normal temperature and humidity for an hour.
  8. Durability :
    - 8.1 Endurance with load :  
300,000 cycles operations at a rate of 15~20 cycle per 1 minute with rating.
    - 8.2 Vibration proof :  
Measured after the switch is fixed in a chamber under below condition.
      - 8.2.1 Vibration frequency range : 10~55Hz.
      - 8.2.2 Total amplitude : 1.5mm.
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8.2.3 Sweep ratio : 10~55~10(Hz) approx.1min

8.2.4 Method of changing the sweep vibration of frequency :  
Logical or straight line.

8.2.5 Direction of vibration :  
Three vertical directions including the control shaft.

8.2.6 Test time : each 2 hours (total 6 hours).

9. Notes :

9.1 Following the soldering process, do not try to clean the switch with a solvent or the like.

9.2 Safeguard the switch assembly against flux penetration.

9.3 The lowest operating position is 6.2mm, do not push the lever under the lowest OP.

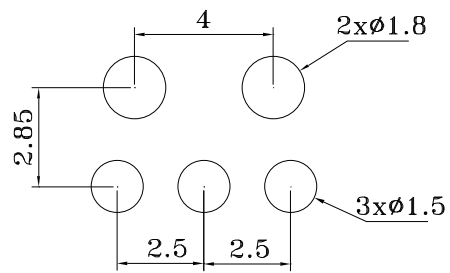
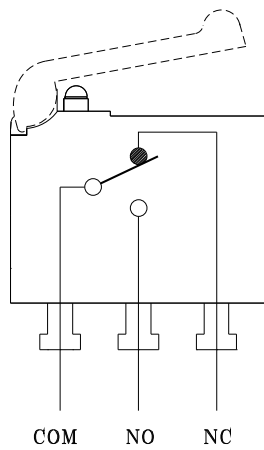
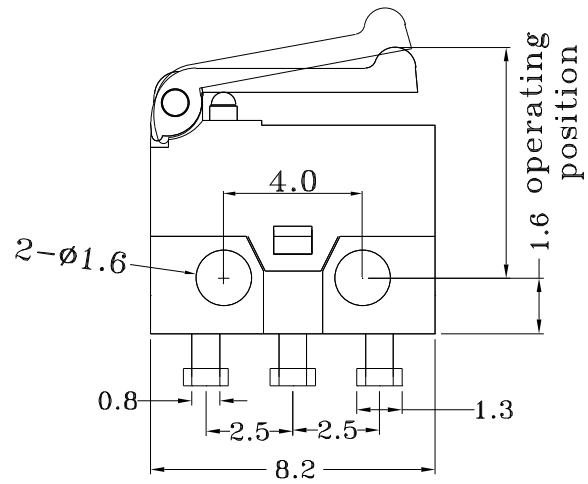
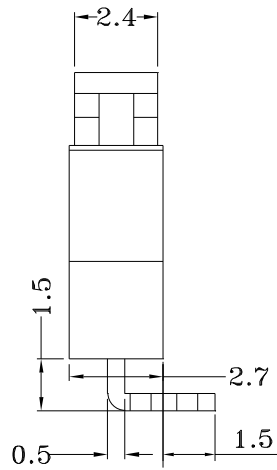
9.4 This switch is RoHS compliant.

11. Materials :

Part Name	Material	Description
Terminals	Brass	Ag-plated
Body	PBT	
Cover	POM	
Lever	POM	
Button	POM	
Contact	BeCu with Ag	

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11.Drawing :



Mounting Pattern

**Free Position : 8.0 mm**

**Operating Position : 6.2~7.2 mm**

**Release Position : 7.2 mm (Max)**