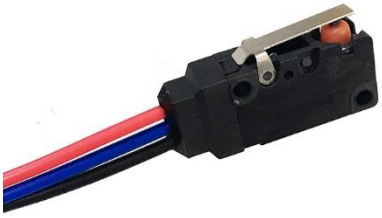
Products for Dust Handling



SPLV-04 Micro switch

3.DETAIL SPECIFICATIONS

Type:WS2-05DSW1-W200-300

Construction category:D type

Operation method:Snap Action

Configuration:Single-Pole Single -Through (SPST)

Terminal form:Wire type

Mounting:via side mounting holes

Protection:IP67

3.1OPERATING CHARACTERISTICS

Characteristics	Units	Standards	Note
Actuating Force	N	2.0 Max	Original 2.0 Max.
Stretching resistance of case	N	35 min	150±5℃ 3hrs
Operating Position	mm	14.7± 0.4	Original 14.7± 0.4

Note:

Actuating Force:

The force required to move the actuator from the free to the operation position

Release Force

The force allowed the mechanism to reset actuator after operation

Free Position

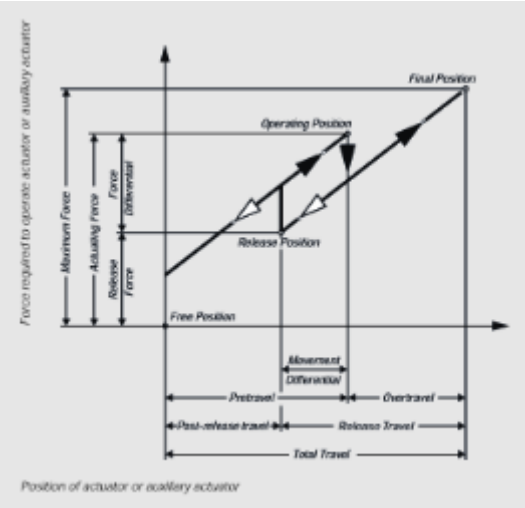
The position of the actuator when no external force is applied

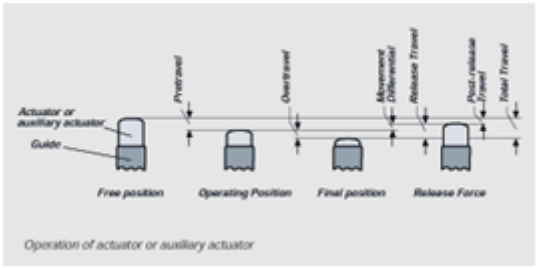
Operating Position

The position of the actuator when contact change-over take place

Movement Differential

The distance between operation and release position





3.2 General

3.2.1 Application This specification is applied to WS2 Micro Switch used for electronic equipment.

3.2.2 Operating Temperature range -40℃ ～ +85℃

3.2.3 Test condition Unless otherwise specified. The atmospheric conditions for making measurements And tests are as follows:

Ambient temperature: 15~35℃

Relative humidity: 45~85%

Air pressure: 86~106kPa (860~1060 mbar)

Should any doubt arise in judgment. It shall be conducted at the following conditions.

Ambient Temperature: 20±2℃

Relative humidity: 60~70%

Air pressure: 86~106kPa (860~1060 mbar)

3.3 Appearance Construction and Dimension

3.3.1 Appearance Switch shall have good finishing, and no rust crack or plating failures.

3.3.2construction and dimensions Refer to individual product drawing.

3.4. Electrical Specifications

NO.	Item	Test Condition	Criteria
3.4.1	Contact Resistance	Shall be measured at 1A, 5V DC by voltage drop method after some operations without load. Applied position: Between terminal “C” and terminal “NO”.	50mΩ MAX
3.4.2	Insulation Resistance	Test voltage:500VDC, measured after 1 min ±5s Applied Position: applied position: 1)Between terminal “C” and terminal “NO” 2)Between terminal and ground	100MΩ MIN
3.4.3	Voltage proof	Following test voltages shall be applied for 1 min. 1)Between terminal “C” and terminal “NO”: 1000VAC (50~60Hz) 2)Between terminal and g round: 1500V AC(50~60Hz)	No dielectric breakdown shall occur

3.5. Durability

NO.	Item	Test Condition	Criteria
3.5.1	Cold	After testing at -40±2℃ for 96 h, the switch shall be allowed to stand under normal room temperature and humidity condition for 1h, and then measurement shall be made within 1 h. water drops shall be removed.	Contact resistance (item 4.1): 100mΩ MAX Insulation resistance (item 4.2): 50MΩ MIN Voltage proof: (item 4.3) No dielectric breakdown shall occur. Within 10%
3.5.2	Dry heat	After testing at 85±2℃ for 96 h, the switch shall be allowed to stand under normal room temperature and humidity condition for 1h, and then measurement shall be made within 1 h.	
3.5.3	Damp Heat	After testing at 40±2℃ and 90-95%RH for 96 h, the switch shall	

		be allowed to stand under normal room temperature and humidity condition for 1h, and then measurement shall be made within 1 h. water drops shall be removed.	of specified value . No abnormalities shall be recognized in appearance and construction
3.5.4	Change of Temperature	After 5 cycles of following conditions the switch shall be allowed to stand under normal room temperature and humidity condition for 1h, and then measurement shall be made within 1 h. water drops shall be removed.	
3.5.5	Salt Mist	Switch shall be checked after following lest. 1) Temperature: 35±2℃ 2) Salt solution: 5±1% (solids by mass) 3) Duration: 24±1h After test, salt deposit shall be removed in running water	No remarkable corrosion shall be recognized in metal part

No	Item	Test conditions	Criterion
3.6.1	Actuator strength	In the direction of motion perpendicular to the actuator, applies a static pressure to the actuator for 1 minutes.	10N, no damage
3.6.2	Terminal strength	The terminal Applied static axial thrust and pulling force to the terminal for 1 minutes	25N, no damage
3.6.3	Vibration	1) Vibration frequency range：10-55Hz； 2) The total amplitude：1.5mm； 3) Sweep frequency ratio：10-55-10Hz for 1 min； 4) Sweep frequency change：Changes in logarithmic or linear； 5) The vibration direction：the three mutually	Contact resistance(4.1)：100m? MAX； Insulation resistance(4.2)：50M? MIN； Test voltage (4.3)：Without occur the phenomenon of dielectric breakdown; Operating characteristics(5.1)：change in regulations within the value of 10% ; No damage.

		perpendicular directions, one direction and the driving part is parallel to the direction of movement； 6) The duration time：every direction for 2h（totally 6h）。	
3.6.4	Impact properties	1) Acceleration：30g； 2) The duration time：11ms； 3)Test direction：6 directions； 4) The impact number：every direction 3 times（ Total for18 times）。	

3.7 Durability

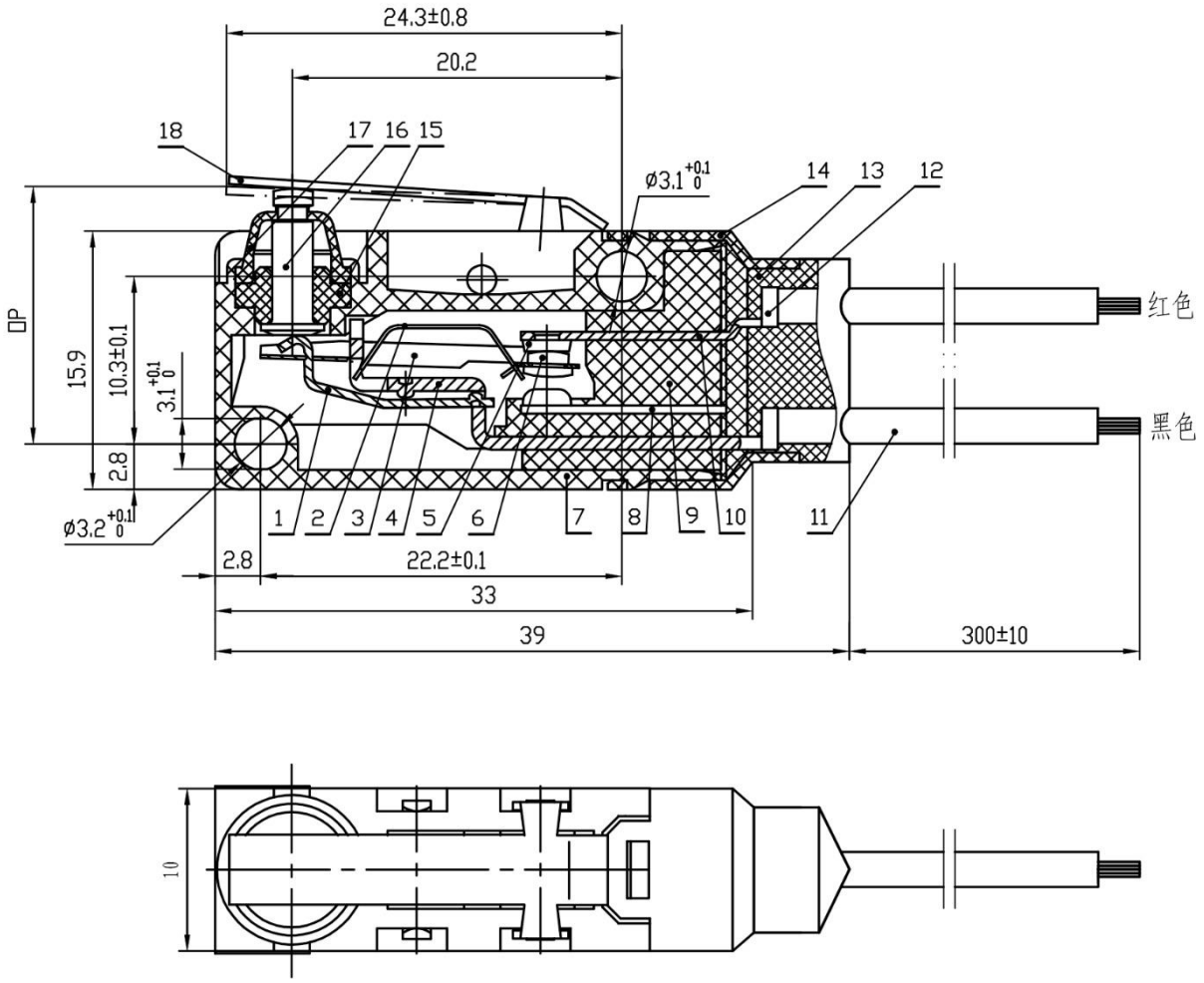
<table>
<tr><th>NO.</th><th>Item</th><th>Test condition</th><th>Criteria</th></tr>
<tr><td>3.7.1</td><td>Endurance (According to UL1054)</td><td>5A 125V AC
Switch shall be operated according to following sequence (Test1~Test2)
<table>
<tr><td></td><td>Voltage</td><td>Current</td><td>Power factor</td><td>Operation rate</td><td>Number of operation</td></tr>
<tr><td>Test1</td><td>125V</td><td>7.5A</td><td>0.75-0.8</td><td>6-10 cycles/min</td><td>50cycles</td></tr>
<tr><td>Test2</td><td>125V</td><td>5A</td><td>0.75-0.8</td><td>6-10 cycles/min</td><td>50000 cycles</td></tr>
</table>
Voltage proof(Cut-off current:0.5mA)
5GPA 125/250VAC; 4A 30VDC; 1/4hp 250VAC
Test voltages shall be applied for 1 min</td><td>Insulation resistance (item 4.2): 50MΩ MIN；
Voltage proof: Terminal and terminal: 1000VAC No dielectric breakdown shall occur.

Operating characteristic (item 5.1): Within 20% of specified value .

6000 cycles</td></tr>
</table>

			temperature rise: 30℃ MAX； 50000cycles temperature rise: 55℃ MAX； No abnormalities shall be recognized in appearance and construction.
3.7.2	Endurance (According to EN61058-1 /IEC61058-1)	5(2)A 250VAC Switch shall be operated 50,000 cycles at 15~20 cycles/min Voltage proof(Cut-off current:0.5mA) Test voltages shall be applied for 1 min	Insulation resistance (item 4.2): 50MΩ MIN Voltage proof: Terminal and terminal:750 VAC Terminal and ground:1500 VAC No dielectric breakdown shall occur. Operating characteristic (item 5.1): Within ±20% of specified value . Temperature rise:55℃ MAX No abnormalities shall be recognized in appearance and construction

4. DRAWING & DIMENSION



5. CIRCUIT DIAGRAM