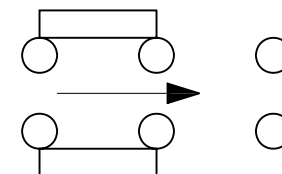
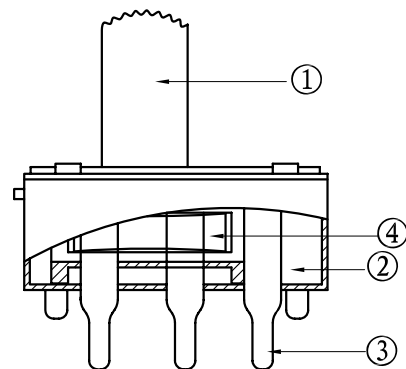
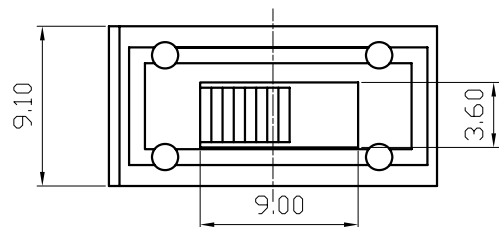
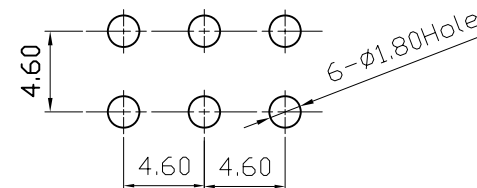


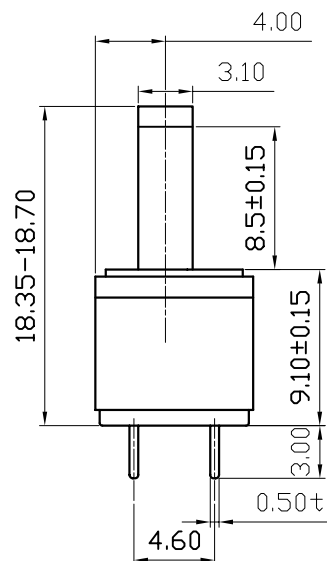
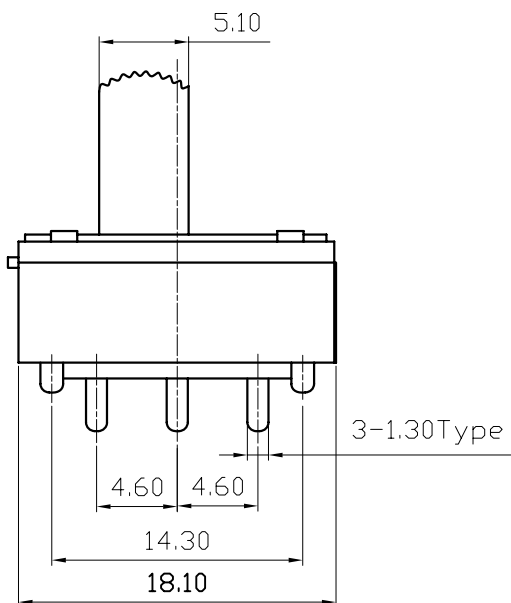
ABIDE BY WEEE & ROHS



Circuit Diagram



P.C.B layout Pattern Side



|                |             |         |               |                                                                                                                                 |                |                                                                                             |
|----------------|-------------|---------|---------------|---------------------------------------------------------------------------------------------------------------------------------|----------------|---------------------------------------------------------------------------------------------|
| 4              | Shrapnel    | —       | 1             | Brass                                                                                                                           | Plating silver |                                                                                             |
| 3              | Terminal    | —       | 3             | Brass                                                                                                                           | Plating silver |                                                                                             |
| 2              | Base        | —       | 1             | Nylon                                                                                                                           | Black          |                                                                                             |
| 1              | Keystoke    | —       | 1             | Nylon                                                                                                                           | Black          |                                                                                             |
| ITEM           | PART NAME   | TER'NO. | QTY.          | MATERIAL                                                                                                                        | FINISHING      | REMARK                                                                                      |
| APPROVALS      |             |         | DATE          |  东莞市凯华电子有限公司<br>KAIHUA ELECTRONICS CO.,LTD |                |                                                                                             |
| DRAWN          | WanWensheng |         | 2007/01/29    |                                                                                                                                 |                |                                                                                             |
| CHECKED        | WanWenxue   |         | 2007/01/29    | TITLE:                                                                                                                          | 滑动开关           |                                                                                             |
| APPROVALS      | WanWenxue   |         | 2007/01/29    | PART NO.                                                                                                                        | SL189109D01    |                                                                                             |
| TOLERANCES ARE |             |         | 30<L ±0.30    | ANGLE                                                                                                                           | UNIT: mm       | SCALE: 1:1                                                                                  |
|                |             |         | 10<L≤30 ±0.20 |                                                                                                                                 |                | PROJ:  |
|                |             |         | 5<L≤10 ±0.15  | ±2°                                                                                                                             | DRAWING NO.    | SHEET 1 OF 1                                                                                |
|                |             |         | L≤5 ±0.10     |                                                                                                                                 |                |                                                                                             |

|         |      |       |              |         |        |        |
|---------|------|-------|--------------|---------|--------|--------|
| ECN NO. | REV. | DATE. | DESCRIPTION. | CHANGE. | CHECK. | APPRO. |
|         | AO   |       | NEW          |         |        |        |

## 1. 一般特性 General Characteristics

- 1.1 额定值(Rating Value): DC30V/0.5A
- 1.2 工作温度(Work Temperature Range):  $-10^{\circ}\text{C} \sim 70^{\circ}\text{C}$
- 1.3 存储温度(Store Temperature Range):  $-20^{\circ}\text{C} \sim 80^{\circ}\text{C}$
- 1.4 正常测试条件(未有特殊说明量测在以下条件进行):

General test condition (Tests and measurements shall be made under the following standard conditions unless otherwise specified):

正常温度:  $5^{\circ}\text{C} \sim 35^{\circ}\text{C}$       相对湿度: 45%~85% RH      气压: 8,600~10,600 帕  
Temperature:  $5^{\circ}\text{C} \sim 35^{\circ}\text{C}$       Relative humidity: 45%~85%      Air pressure: 8,600~10,600 pa

## 2. 产品外观及尺寸要求 Appearance & Dimension Requirement

- 2.1 产品外形结构紧凑, 无配合不良.  
The structure of product is compact, and assembly of parts has no badness.
- 2.2 产品塑胶部件无严重缩水、披锋、欠注、斑点、破损或变形现象.  
The plastic parts of product have no serious defects such as very serious shrink, scarcity, fleck, disrepair, transmutation, etc.
- 2.3 产品引脚和外壳无严重氧化、脏污、变形、毛刺或电镀不良.  
Lead feet and shell have no serious defects such as oxidation, smudge, disrepair, burr, defects on plating.
- 2.4 开关操作顺畅, 节奏感强, 无明显卡塞现象.  
Operating switch is unhindered, rhythmmed, and there is not palpable clag.
- 2.5 产品结构及尺寸参见产品规格图纸.  
Construction and dimensions: Refer to individual product drawing.

## 3. 电气特性 Electronic Characteristics

| No. | 项 目<br>Item                          | 测 试 方 法<br>Test Method                                                                                                                                                                 | 测试设备<br>Equipment                     | 特 性 要 求<br>Requirements                                             |
|-----|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|---------------------------------------------------------------------|
| 3.1 | 接触电阻<br>Contact Resistance           | 在低电流 ( $\leq 100\text{mA}$ ) 条件下测试.<br>Measured at low current (100mA or less).                                                                                                        | 低电阻测试仪<br>Low Resistance Meter        | $100\text{m}\Omega \text{ max}$                                     |
| 3.2 | 绝缘阻抗<br>Insulation Resistance        | 测试相邻引脚之间, 引脚与外壳之间的绝缘阻抗(DC 250V).<br>Measurement shall be made between adjacent terminals, between terminal and shell(DC 250V).                                                         | 绝缘测试机<br>Insulation Resistance Tester | $100\text{M}\Omega \text{ min}$                                     |
| 3.3 | 耐压测试<br>Dielectric Withstand Voltage | 输入一定电压(50~60Hz, 电压值 AC250V) 1 分钟, 漏电流为 2mA, 测试邻近端子间.<br>Apply certain voltage (50~60Hz, AC 250V) for 1 minute between adjacent contacts of the connector with 2mA leakage sensitivity. | 耐压测试机<br>Puncture Tester              | 没有绝缘破坏.<br>电弧等异常.<br>No arcing, break down and damaging insulation. |

#### 4. 机械特性 Mechanical Characteristics

| No. | 项 目<br>Item                 | 测试方法<br>Test Method                                                                                                                                                                            | 测试设备<br>Equipment              | 特性要求<br>Requirements  |
|-----|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|-----------------------|
| 4.1 | 操 作 力<br>Operation<br>Force | 逐渐施力操作开关按键，测量开关到达全部工作行程时所需的最大操作力度。<br>Operate the keystroke of the switch and then increase press strength gradually, Measured maximum operation force while the travel of the switch is full. | 测力计<br><br>Force Gauge         | $200 \pm 80\text{gf}$ |
| 4.2 | 行 程<br>Full travel          | 垂直操作开关按键，量测开关顶端最大移动距离。<br>Operate the keystroke of the switch vertically, the travel distance of keystroke moving from its free position to maximum moving distance shall be measurement.      | 游标卡尺<br><br>Vernier<br>Caliper | $2.4 \pm 0.2$         |

#### 5. 可靠性测试 Reliability trial

| No. | 项 目<br>Item                     | 测试方法<br>Test Method                                                                                                                                                           | 测试设备<br>Equipment        | 特性要求<br>Requirements                                                                                                                                                                                                                                                                                                                      |
|-----|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5.1 | 可焊性试验<br>Solder ability<br>Test | 端子顶部被浸入焊锡炉中，温度为 $230 \pm 5^\circ\text{C}$ ，时间 $5 \pm 1$ 秒。<br>The top of the terminals shall be dipped in the solder bath at $230 \pm 5^\circ\text{C}$ for $5 \pm 1$ seconds. | 控温锡炉<br><br>Solder Stove | 引脚至少 95% 上锡。<br><br>Ninety-five percent of terminals shall be dipped.                                                                                                                                                                                                                                                                     |
| 5.2 | 寿命试验<br>Operation Life          | 开关在寿命试验设备上以约 90 次 / 分的速度连续被操作，具体次数见规格图示。<br>Switch shall be operated continuously at about 90 cycles /min without load.                                                       | 寿命试验机<br><br>Life Tester | 寿命：10,000 次<br>实验后：<br>绝缘电阻： $10\text{M}\Omega$ Min<br>操作力：变化在 $\pm 50\%$ 内<br>开关外观及结构无损坏。<br>Life test: 10,000 cycles<br>After test:<br>Insulation resistance: $10\text{M}\Omega$ Min<br>Operating force: Change should be within $\pm 50\%$ of specified value.<br>No abnormalities shall be recognized in appearance and construction. |

## 5. 可靠性测试 Reliability trial

| No. | 项 目<br>Item                                   | 测试方法<br>Test Method                                                                                                                                                                                                                                                                                                                                                              | 测试设备<br>Equipment                                           | 特 性 要求<br>Requirements                                                                                                |
|-----|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| 5.3 | 耐焊接热<br>Resistance<br>to<br>Soldering<br>heat | 端子焊接部分浸入焊炉，焊炉温度 $260 \pm 5^{\circ}\text{C}$ ，焊接时间 $5 \pm 1$ 秒。（焊接时不可于端子施加外力）。<br>Terminals shall be dipped in the solder bath at $260 \pm 5^{\circ}\text{C}$ for $5 \pm 1$ seconds without additional force for terminals.                                                                                                                                                       | 控温锡炉<br><br>Solder Stove                                    | 本体无变形，能满足于机械、电气性能。<br>Appearance should be not damaged, electrical and mechanical characteristics shall be satisfied. |
| 5.4 | 耐高温测试<br>Resistance to<br>Heat Test           | 放置在温度 $80 \pm 2^{\circ}\text{C}$ 环境中 96 小时后，再置于正常条件下 1 小时后测定。<br>The switch shall be stored at a temperature of $80 \pm 2^{\circ}\text{C}$ for 96 hours, Measurements shall be made after it be subjected to the standard conditions for 1 hour.                                                                                                                                 | 高低温<br>试验机<br><br>High & Low<br>Temperature<br>Tester       | 外观，机械及电气性能均符合要求。<br>Appearance, electrical and mechanical characteristics shall be satisfied.                         |
| 5.5 | 耐低温测试<br>Resistance to<br>Cold Test           | 放置在温度 $-25 \pm 2^{\circ}\text{C}$ 环境中 96 小时后，再置于正常条件下 1 小时后测定。<br>The switch shall be stored at a temperature of $-25 \pm 2^{\circ}\text{C}$ for 96 hours, Measurements shall be made after it be subjected to the standard conditions for 1 hour.                                                                                                                               | 高低温<br>试验机<br><br>High & Low<br>Temperature<br>Tester       | 外观，机械及电气性能均符合要求。<br>Appearance, electrical and mechanical characteristics shall be satisfied.                         |
| 5.6 | 耐湿性测试<br>Resistance to<br>Humidity Test       | 放置于温度 $40 \pm 2^{\circ}\text{C}$ ，相对湿度为 90~96% 环境中 96 小时后，再置于正常条件下 1 小时后测定（注意要擦去水滴）。<br>The switch shall be stored at a temperature of $40 \pm 2^{\circ}\text{C}$ , relative humidity 90~96% for 96 hours, Measurements shall be made after it be subjected to the standard conditions for 1 hour (Wipe out water drip).                                                         | 恒温恒湿箱<br><br>Temperature<br>& Humidity<br>Tester<br>Chamber | 外观，机械及电气性能均符合要求。<br>Appearance, electrical and mechanical characteristics shall be satisfied.                         |
| 5.7 | 盐雾实验<br>Salt Mist<br>Test                     | 试件在下述实验后测量：<br>1. 温度： $35 \pm 5^{\circ}\text{C}$<br>2. 盐溶液浓度： $5 \pm 1\%$ （质量百分比），<br>3. 试验时间： 24 小时，<br>4. 试验后，将盐沉积物用水冲掉。<br>The switch shall be checked after following test:<br>1. Temperature: $35 \pm 5^{\circ}\text{C}$<br>2. Salt solution: $5 \pm 1\%$ (Solids by mass)<br>3. Duration: 24 hours,<br>4. After immersing, salt deposit shall be removed by running water. | 盐雾<br>试验机<br><br>Salt Spray<br>Tester                       | 在金属件上没有严重腐蚀斑点。<br><br>No remarkable corrosion shall be recognized in metal parts.                                     |