

|     |        |     |                 |
|-----|--------|-----|-----------------|
| 类 型 | 小型微动开关 | 品 名 | SDS130-00D-70-4 |
|-----|--------|-----|-----------------|

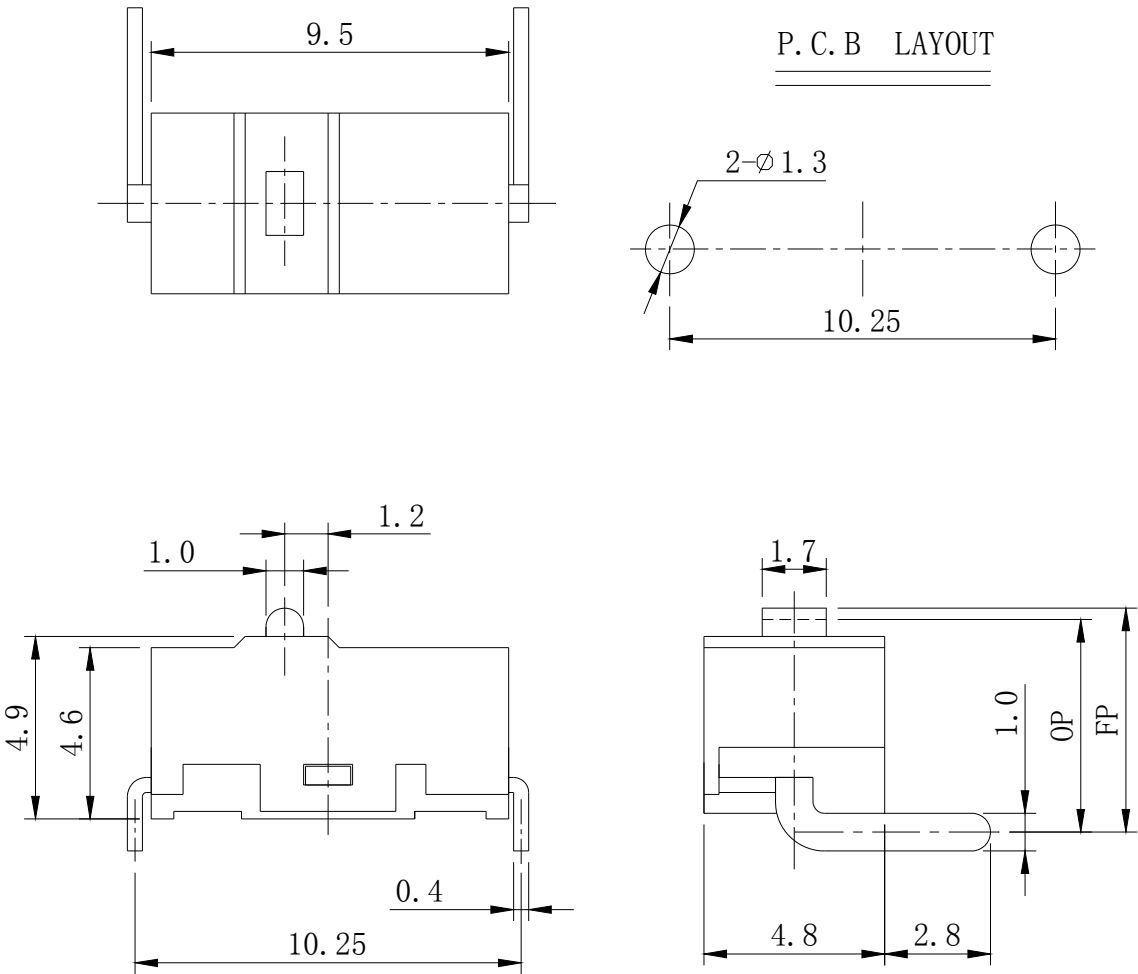
1. 功能规格

|              |                |              |            |
|--------------|----------------|--------------|------------|
| 1.1额定电压      | DC48V ； AC125V | 1.6自由位置 (FP) | 5.95±0.2mm |
| 1.2额定电流      | 0.1A           | 1.7动作位置 (OP) | 5.55±0.2mm |
| 1.3接触电阻 (CR) | ≤300mΩ         | 1.8行程 (PT)   |            |
| 1.4操作力 (OF)  | 50~100gf       | 1.9回弹力 (RF)  |            |
| 1.5灵敏度 (BT)  | 5ms max        | 1.10         |            |

2. 可靠度参数

|          |                  |         |             |
|----------|------------------|---------|-------------|
| 2.1机械寿命  | 1,000,000 cycles | 2.5焊接工艺 | 手工焊         |
| 2.2电器寿命  | 1,000,000 cycles | 2.6适用温度 | -25℃ - +80℃ |
| 2.3绝缘电阻  | ≥100MΩ           | 2.7适用湿度 | <85%RH      |
| 2.4绝缘耐电压 | AC250V 1 minute  | 2.8     |             |

3 尺寸规格图



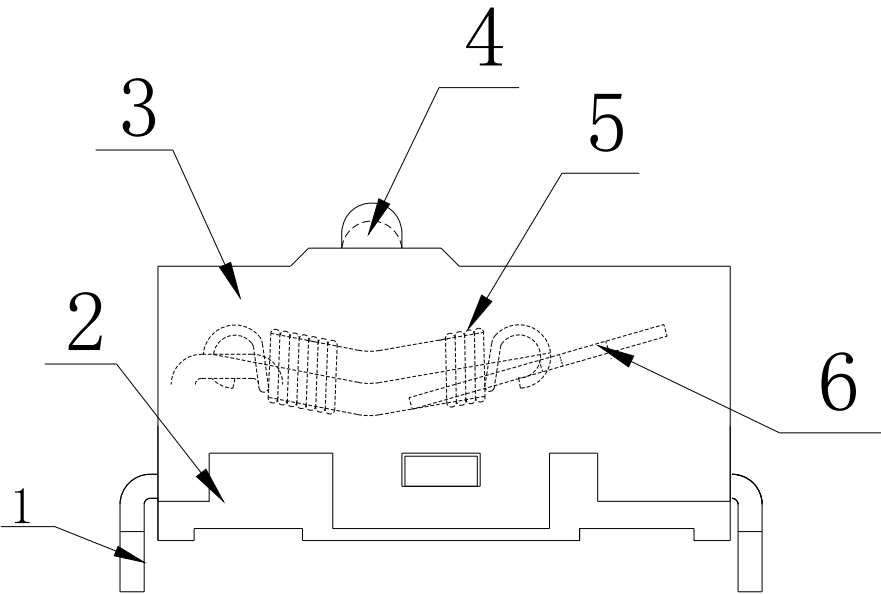
|      |       |          |        |
|------|-------|----------|--------|
| 文件编号 |       | 第A版第0次修订 | 共1页第1页 |
| 文件名称 | 产品规格书 | 未注公差     | ±0.1   |
| 拟 制  | 审 核   | 批 准      | 生效日期   |

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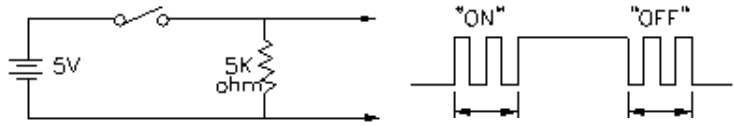
|                    |                        |                   |                  |          |           |
|--------------------|------------------------|-------------------|------------------|----------|-----------|
| SERIES 系列          | MICRO SWITCHES(SDS130) | Issuance date 日期: |                  | 20060801 |           |
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| Material list 材料清单 |                        |                   |                  |          |           |
| NO.                | Part Name 品名           | Q'TY 数量           | Generic Class 材质 |          | Remark 备注 |
| 1                  | Terminal<br>端 子        | 2                 | C2680            |          |           |
| 2                  | Base<br>底 座            | 1                 | Nylon            |          |           |
| 3                  | Case<br>盖 片            | 1                 | PBT              |          |           |
| 4                  | Button<br>按 钮          | 1                 | PBT              |          |           |
| 5                  | Spring<br>弹 簧          | 1                 | SUS304           |          |           |
| 6                  | Change Plate<br>切换片    | 1                 | C5210            |          |           |
|                    |                        |                   |                  |          |           |

Structure chart:  
结构示意图:



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| 1、General(一般特性)：                     |   |  |  |                   |  |   |             |
| 1.1 Switch rating:                   |   | DC48V 0.1A/AC125V 0.1A（规格：DC48V 0.1A/AC125V 0.1A）  |  |                   |  |   |             |
| 1.2 Operating temperature range      |   | -10℃~60℃（操作温度范围: -10℃~60℃）   |  |                   |  |   |             |
| 1.3 Preservative temperature range   |   | -25℃~80℃（储存温度: -25℃~80℃）   |  |                   |  |   |             |
| 1.4 Storage humidity range           |   | <85%RH（储存湿度: <85%RH）   |  |                   |  |   |             |
| 2.Performance 功能参数                   |   |  |  |                   |  |   |             |
| 2.1 Electrical characteristics(电气特性) |   |  |  |                   |  |   |             |
| Items 项目                             |   | Test conditions 测试条件   |  |                   |  | Criteria 标准                                   |             |
| 2.1.1                                | Contact resistance<br>接触电阻              | Applying a static load twice the operating force to the button, measurements shall be made between the terminals.<br>Measurement shall be made with a stabilization contact resistance meter for 2 mΩ precision under the condition which a voltage of DC5V and a current of 0.1A shall be applied between the terminals.<br>在按钮上施加两倍操作力的静负荷值，采用精度为 2 mΩ 高稳定度线性毫欧表，在 DC5V，0.1A 的条件下测量端子两端接触电阻。               |  |                   |  | Refer to individual product drawing<br>参考规格图纸 |             |
| 2.1.2                                | Insulation resistance<br>绝缘电阻           | Spec. voltage (Refer to 2.3 item of spec. drawing) is applied between each pair of terminals and between the terminal and the metal frame for one minute.<br>Measurement shall be made with a test instrument of insulation resistance under the condition voltage which a voltage of spec. is applied between the terminals.<br>采用绝缘电阻测试仪，分别在相互绝缘的所有端子之间及各接线端子与外露的非金属零件之间加载规格电压（参见规格图 2.3 项），持续 1 分钟测试绝缘电阻。 |  |                   |  | Refer to individual product drawing<br>参考规格图纸 |             |
| 2.1.3                                | Dielectric withstand in voltage<br>耐压强度 | Spec. voltage (Refer to 2.4 item of individual product drawing) shall be applied across terminals and frame for one minute.<br>在端子两端之间加载规格电压（参见规格图 2.4 项），持续时间为 1 分钟。  |  |                   |  | There shall be no breakdown<br>无电击穿等异常。       |             |
| 2.1.4                                | Bounce<br>灵敏度                           | <p>Lightly striking the center of the button at a rate encountered in normal use (3 to 4 operating per sec.) bounce shall be tested at “ON” and “OFF”.</p> <p>以 3-4 次/秒的频率施加正常力于按钮上，操作之动作则可测出“ON”、“OFF”之功能。</p> <div></div>  |  |                   |  | 5ms max                                       |             |

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| Items 项目                          |                            | Test conditions 测试条件  |                   |  | Criteria 标准   |     |
| 3.Mechanical characteristics 机械特性 |                            |   |                   |  |   |     |
| 3.1                               | Free Position<br>自由位置      | Position of switch plunger or actuation when on external force is applied.<br>开关不受外力时之位置。   |                   |  | Refer to individual product drawing<br>参考规格图纸   |     |
| 3.2                               | Operating Position<br>动作位置 | Position of switch plunge or actuator at which point contacts snap from normal to operated position. Note that the case of flexible of adjustable actuators.<br>开关操动件受到外力后，由自由状态切换到动作状态的动作位置。<br>(注意防止盖片变形或按钮倾斜现象。)   |                   |  | Refer to individual product drawing<br>参考规格图纸   |     |
| 3.3                               | Operating Force<br>操作力     | Placing the switch such that the direction of switch operation is vertical, and then gradually increasing the load applied to the button, the maximum load for the button to come to operating position shall be measured.<br>置开关于垂直状态，渐增力度使按钮至动作位置为最大值之力度。   |                   |  | Refer to individual product drawing<br>参考规格图纸   |     |
| 3.4                               | Terminal Strength<br>端子强度  | Placing the switch such that the direction of switch operation is vertical, a static load of 1kgf Max shall be applied to the tip of the terminal in the direction of operation for one minute.<br>置开关于垂直状态，动作端子顶端接线端强度 1kgf Max，时间为 1 分钟。  |                   |  | There shall be no sign of damage mechanically and electrically.<br>机械性能、电气性能无损害现象。  |     |
| 3.5                               | Button Strength<br>按钮强度    | Placing the switch such that the direction of switch operation is vertical, a static load of 1kgf Max shall be applied to the center of the button in the direction of button operation for one minute.<br>置开关于垂直状态，直接动作按钮,驱动强度 1kgf Max,时间为 1 分钟。 <div></div> |                   |  |   |     |
| 4. Soldering characteristics 焊接性能 |                            |   |                   |  |   |     |
| 4.1                               | Hand soldering<br>手工焊      | Use a soldering iron of 30 watts , controlled at 350-360 °C approximately 3 seconds 1 time while applying solder.<br>焊接时需在 30 瓦烙铁，控制于 350-360℃，大约 3 秒钟一次的条件下进行。   |                   |  | (1)A new uniform coating of solder shall cover a minimum of 90% of the surface being immersed.<br>(2)There shall be no defects in appearance or in the mechanical functions.<br>(1)覆锡性能达到浸入表面的 90%以上<br>(2)没有出现任何外观和机械功能上的损伤。 |     |

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| 5. Durability characteristic:耐久性能   |                         |  |                   |   |  |     |
| 5.1   | Mechanical life<br>机械寿命 | (1) Without loading 无负载<br>(2) Operating speed : 120 cycles/minute<br>操作频率: 120 次/分钟<br>(3) Push force : maximum value of operating force twice<br>推动力: 操作力的最大规格值的两倍<br>(4) Life: 1,000,000 cycles<br>寿命: 1,000,000 次                |                   |   | After test:<br>(1)Contact resistance:1 ohm Max.<br>(2)Insulation resistance: 10M ohm Min.<br>(3)Bounce: 5m sec. Max.<br>(4)Withstand voltage: AC250V, 1 minute<br>(5)Operating force: 30% of initial value<br>(6)There shall be no defects in appearance or in the mechanical functions. |     |
| 5.2   | Electrical life<br>电气寿命 | (1) Operating speed : 10 cycles/minute<br>操作频率: 10 次/分钟<br>(2) Push force : maximum value of operating force twice<br>推动力: 操作力的最大规格值的两倍<br>(3) which the load of DC48V 0.1A 负载为 DC48V 0.1A<br>Life: 1,000,000 cycles 寿命: 1,000,000 次 |                   |   | 试验后:<br>(1) 接触电阻:1 欧姆以下<br>(2) 绝缘电阻:10 兆欧姆以上<br>(3) 灵敏度: 5 毫秒以下<br>(4) 耐压强度: AC250V, 1 分钟<br>(5) 操作力度:测试初始值 30%以内<br>(6) 没有出现任何外观和机械功能上的损伤。  |     |
| 6. Special Requirements 特别要求  |                         |  |                   |   |  |     |
| 6.1 Hazardous Substance Management: Follow environmental requirements: Hazardous Substance, DIC/WI/G506.<br>危害物质管理: 遵循环境物质规范: 危害物质 DIC/WI/G506。                 |                         |  |                   |   |  |     |
| 7. Marks explanation 标志说明   |                         |  |                   |   |  |     |
| 7.1 There should be trademark on case.<br>每个产品盖片上应有商标。  |                         |  |                   |   |  |     |
| 8. Packing explaintion 包装说明   |                         |  |                   |   |  |     |
| 8.1 1000 pcs for one bag,4 bags for one small box,6 small boxes for one big box.<br>1000 pcs 为 1 袋, 4 袋为 1 小盒, 6 小盒为一箱。   |                         |  |                   |   |  |     |
| 9.Quanlity records of delivered goods 出货证明记录  |                         |  |                   |   |  |     |
| 9.1 Package boxes or package bags should be attached labels or identifiers of Model No., Quantity and Quality Pursuing No.<br>成品包装箱或包装袋上应附有产品型号、数量及质量追踪号的标签或标识。 |                         |  |                   |   |  |     |
| 9.2 There shall be quality records of inspection and test in package boxed.<br>出货产品包装批、出货批应附有产品检验、试验之质量证明记录。  |                         |  |                   |   |  |     |

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| 10. Application Notes: 注意事项   |                      |                   |   |          |     |
| 10.1 All parts of the switch can not be dissolved before soldering.<br>开关焊接前各零件不能被熔化。   |                      |                   |   |          |     |
| 10.2 Switches can not be blown with air gun or cleaned with a solvent after soldering.<br>开关焊接后不能用气枪吹干或用溶剂去清洗开关。  |                      |                   |   |          |     |
| 11. Incoming inspection declaring: 验收注意事项   |                      |                   |   |          |     |
| 11.1 You must comply with the following principles in the process of the incoming inspecting and using our products, if not, we won't be liable for any damages from it.<br>我司交付贵公司产品，在验收、使用进程中必须遵循以下原则，否则造成一切损失，我司概不负责。  |                      |                   |   |          |     |
| 11.2 The requirement of the incoming inspection must meet the product's specification that have been affirmed and signed by you. If the following things appear in the process of the incoming inspection, the use is restricted, please feed back us in time ,we will take back of all.<br>必须依据我司事先送贵司经贵司签认承认书相关规格要求验收，验收有以下情况请不予使用，退回我司。  |                      |                   |   |          |     |
| 11.3 The products that are attached or stucked by the unqualified labels;<br>附有或粘贴有检验不合格标识的产品；  |                      |                   |   |          |     |
| 11.4 In the process of the incoming inspection, he following main function parameters must be checked and they must meet the specification. If the sum of the badness rate is more than 1% in the process, the use is restricted, please feedback us in time, we will take back of all.<br>依承认书规格要求检验下列主要功能参数，必须符合要求，如在贵司验收过程有下述不良超过 1%，请贵司不要使用，及时知会我司并退回。<br>①Operating Force: (Refer to individual product drawing)<br>操作力：（参照规格图纸）<br>②Pre-travel: (Refer to individual product drawing)<br>行程范围：（参照规格图纸）<br>③Initial Contact Resistance: (Refer to individual product drawing)<br>初始状态接触电阻：（参照规格图纸）<br>④Soldering ability: 235±5℃/3S,the covering rate of tin is more than 90%;<br>可焊性(235±5℃ 3S, 覆锡率 90%以上)<br>⑤Function and action: the operation that the direction of switch operation is vertical with the up-surface of button isn't disabled;<br>功能动作:产品正压无动作失效； |                      |                   |   |          |     |
| 11.5 If the serious packaging disrepair of products appears in the process of the incoming inspection, please refuse accepting them and return them to us directly.<br>贵司在验收过程发现外包装严重破损, 请不予收货, 直接退还我司。   |                      |                   |   |          |     |
| 11.6 Operating requirement: the direction of switch operating is vertical with the up-surface of button;<br>使用压动方向：必须正压。  |                      |                   |   |          |     |
| 11.7 If your incoming inspection is careless and it arose that the badness rate of your producing process is more than 1%,we won't be liable for the damage.<br>因贵司进料验收漏失，导致超过 1%以上制程不良损失，我司不負責任。   |                      |                   |   |          |     |