

DSHP series DIP Switch

STANDARD SPECIFICATION

1. Ratings (标准规格)

1.1 Mechanical Life机械寿命: 3000cycles minimum 最低1000次

1.2 Electrical Life电器寿命 :1000 cycles/1000次

1.3 Contact Rating 接触电压:

100mA at 50V DC Non-switching, 100毫安, 在50伏的非交流

25mA at 24V DC, 10mA at 50Vdc Switching25毫安在24伏, 10毫安50伏开关

1.4 Contact Resistance 接触电阻:

50mohms maximum (initial) 50mohms最高(初次)

100mohms maximum (after life) 100mohms 最高(寿命后)

1.5 Insulation Resistance绝缘电阻:

Minimum at 100V DC between adjacent closed最少在100伏关闭状态

Contacts and also across open switch contacts.接触也是导通时接触

Initially最初: 200megaohms

After life最后寿命: 100megaohms

1.6 Dielectric Strength绝缘强度:

300V AC, RMS, minimum voltage measured between adjacent closed contacts

and also across open switch contacts (300伏.有效值的.最低限度的电压

测量之间毗邻的封闭接触, 也导通接触)

1.7 Switch Capacitance开关电容: 5pf at 1 megahertz.5pf在1兆赫.

1.8 Operating Temperature操作温度: -40°C to+ 85°C

1.9 Storage Temperature储存温度: -40°C to +85°C

2.0 Test Condition试验条件: The standard test shall be 5~35°C temperature

and 45~85%relative humidity 860~1060Hpa atmospheric pressure unless otherwise specified in case of any question happen retest condition shall specify by

temperature 20±2°C,65±5%RH and 860~1060Hpa(标准测试应为5-35°C的温度和45-85%

相对湿度860-1060Hpa 大气压力除非另有注明。如有任何问题发生, 在试验条件, 应

明确规定由温度: 20±2°C, 湿度65±5%和860-1060Hpa)

2. Materials and Finishes 材料和包装:

2.1 Terminals Contact接触面: copper alloy, gold plated 3μ over nickel
铜合金, 底镍镀金3 μ

2.2. Terminals端子: Copper alloy, gold plated 1μ, over nickel 铜合金
底镍镀金1 μ

2.3 Base 本体

2.4 Cover上盖: : PPS grade thermoplastic/black color 黑色PPS塑胶

2.5 Actuator推钮: NY46 grade thermoplastic/white color白色尼龙46塑胶

3. Processing配置操作:

DSHP series DIP Switch

STANDARD SPECIFICATION

3.1: Switch operation and taping 开关操作及贴防水胶

3.1-1 Use tweezers or ball point pen for operation (使用镊子或圆珠笔操作)

3.1-2 Flux cleaning should be done without removing the tape 用焊剂时应不除去防水胶.

3.1-3 If the tape is removed, it adhered less than before when it is placed back on, possibly causing flux inflow. (如果除去防水胶, 他的持久性比之前更少, 且可能引起焊剂的流入)

3.1-4 Sealed switches withstand aqueous, detergent and isopropyl alcohol washing (密封式开关侵入到水溶液中, 用洗调剂和异丙醇清洗)

4. Electrical characteristic 电器特性:

| ITEM 项目 | TEST DESCRIPTION 测试描述 | TEST CONDITIONSSPECIFICATION 测试条件说明 | SPECIFICATION 说明 |
|------------|---|--|-------------------------------------|
| 4.1 | Contact resistance 接触电阻 | To be measure with AC 1kHz±200Hz(Max20mV.Max50mA) or 10mA,5V DC 1 千赫±200Hz (在最大电压 20mV.最大电流 50mA) 或 10mA, 5V 直流测试 | Max50mΩ 最大 50 毫欧 |
| 4.2 | Insulation resistance 绝缘电阻 | To be measure with an insulation measuring device of 500V DC between all the terminals and between the terminals and the frame for 1minute ±5 seconds (在接触端子或排脚之间输入 500V 直流电压端分钟±5 秒) | Min 100MΩ 最小 100 兆欧 |
| 4.3 | Dielectric breakdown voltage (耐电压强度) | AC 500V(50-60Hz, 2mA current)being applied between all the adjacent terminals and between the terminal and frame for 1 minute(在接触端子或排脚之间输入AC 500V (50-60赫磁) 电压. 一分钟感应电流为2mA. 按以上方法进行测试) | No breakdown insulation 没有绝缘破损异常 |
| 4.4 | Switch capacitance 电容测量 | To be measured with frequency 1 Mhz±10kHz applied between adjacent terminal and circuit (频率为1Mhz±10kHz.适用于相邻排脚和电路) | Max 5pf 最大5pf |

DSHP series DIP Switch

STANDARD SPECIFICATION

5. Mechanical characteristic 机械特性:

| ITEM 项目 | TEST DESCRIPTION 测试描述 | TEST CONDITIONS 测试条件 | SPECIFICATION 说明 |
|------------|-------------------------------|--|---|
| 5.1 | Operation force 操作力 | Applied in the direction of operation (在同一方向) | Max 1000gf (最大1000gf可正常推动) |
| 5.2 | Terminal strength 端子强度 | Measurement in made with A static load applied to the foot of the control unit the operating direction a static force of 500gf being applied in one direction on the tip of the terminal for 1 minute one time each terminal (在同一个方向加上500gf的力度测试, 时间为一分钟) | No bending or deflection experienced the terminal may be bent. but shall not break or damage the insulation material (同一时间内, 每个端子没有经过弯曲或偏转, 等异常满足于机械电器性能) |
| 5.3 | Control unit strength 控制强度 | A load of 1kgf is applied in the operating direction and pulling direction of the control unit for 15 seconds (负重1kgf朝操作方向和牵引方向测试15秒) | Electrical characteristic of the (4) above shall be assured 电气特性符合上面(4)要求 |

DSHP series DIP Switch

STANDARD SPECIFICATION

6. Reliability

| ITEM 项目 | TEST DESCRIPTION 测试描述 | TEST CONDITIONS 测试条件 | SPECIFICATION 说明 |
|------------|-----------------------------|---|---|
| 6.1 | Cold resistance 耐寒性 | Switch for testing being kept in the conditions at $-40\pm 2^{\circ}\text{C}$ in temperature for 96 hours and in a normal ambient condition for one hour then to be measured within one hour (drops of water being taken away) (开关测试条件保持在 $-40\pm 2^{\circ}\text{C}$ 的温度下, 为96小时。放置在一个正常的环境条件下一小时后测试) | Contact resistance (4.1) Max 100m Ω insulation resistance (4.2) Min 100M Ω dielectric breakdown voltage ac 500V 1 minute no breakdown insulation operating force (5.1) $\pm 30\%$ gf before test there shall be no defects in appearance or in the mechanical functions 接触电阻: (4.1 max 100m Ω 绝缘电阻) 绝缘电阻: (4.2) Min100M Ω 电压, 交流500v) 一分钟无击穿绝缘控制力 (5.1) $\pm 30\%$ gf, 然后测试不得有任何缺陷, 在外部, 还是存在机械功能. |
| 6.2 | Dry heat resistance 耐热性 | Switch for testing being kept in the conditions at $85\pm 2^{\circ}\text{C}$ in temperature for 96 hours and in a normal ambient condition for one hour then to be measured within one hour (开关测试被放在条件为 $85\pm 2^{\circ}\text{C}$ 的温度下为96小时, 放置一个在正常的环境条件下一小时后测试. | |
| 6.3 | Humidity resistance 防潮湿度 | Switch for testing being kept in the conditions at $40\pm 2^{\circ}\text{C}$ in temperature and 90~95% RH for 96 hours and in a normal ambient condition for one hour then measured within one hour.(放置 $40\pm 2^{\circ}\text{C}$ 试验的相对湿度为90~95%环境中测试96小时后, 再将其放置正常环境1小时后在测.) | Contact resistance (4.1) Max 100m Ω insulation resistance (4.2) Min 100M Ω dielectric breakdown voltage AC 500V 1 minute no breakdown insulation operating force (5.1) $\pm 30\%$ gf before test there shall be no defects in appearance or in the mechanical functions (接触电阻: (4.1)Max 100m Ω 绝缘电阻: (4.2)Min 100M Ω 电压:AC 500v 1分钟无击穿绝缘.操作步骤应在 (5.1) $\pm 30\%$ gf 测试, 不应有任何缺陷, 在外部. 还是存在机械性能.) |

DSHP series DIP Switch

STANDARD SPECIFICATION

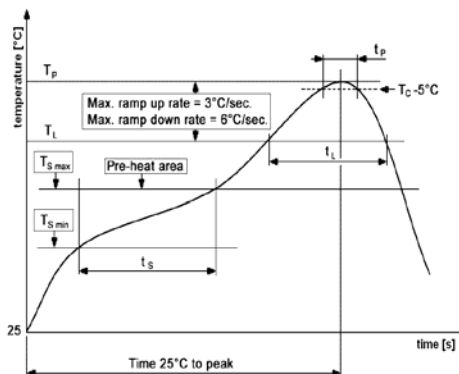
| | | | |
|-----|-------------------------|---|---|
| 6.4 | Salt-spray test 盐雾试验 | The sample is allowed to stand the test chamber controlled to $35\pm 2^{\circ}\text{C}$ in temperature and $5\pm 1\%$ (weight ratio)salt-water concentration for 24 ± 1 hour and is subjected to test then, salt deposits attached to the sample are washed away with water. 【样品经受在试验控制温度 $35\pm 2^{\circ}\text{C}$ ，在高温和 $5\pm 1\%$ (重量比)盐水浓度为 24 ± 1 小时，并因此而遭受的试验，然后，把试验品上的盐层冲洗。】 | Shall be free from functionally harmful fust (不影响功能) |
| 6.5 | Vibration test 振动试验 | The range of vibration: 10~55Hz total width Of vibration: 1.5mm the proportion of vibration: 10~55~10(Hz) Approx:1 Minute the variation Of the number of vibration: logarithmic or approx straight line He directions: 3 vertical directions including operation Direction duration: 2 hours each (total 6 hours) 射程振动: 10~55Hz 总宽度的振动: 1.5毫米 比例振动: 10-55-10 (赫兹) 大约: 1分钟变异 的数目振动: 对数或约数 直线方向: 顶点垂直方向包括操作方向 时间: 每2小时共计6小时. | Contact resistance (4.1) Max 50m Ω insulation resistance (4.2) Min 100M Ω dielectric breakdown voltage (4.3) AC 500V 1 minute no breakdown insulation operating force (5.1) $\pm 30\%$ gf before test as per individual specifications no apparent effect on physical appearance or mechanical functions 接触电阻: (4.1) Max 50m Ω 绝缘电阻: (4.2) Min 100M Ω 电压 (4.3) AC 500 V 1分钟无击穿绝缘 控制力 (5.1) $\pm 30\%$ gf然后测试, 规格没有明显的影响外表和机械性能 |

DSHP series DIP Switch

STANDARD SPECIFICATION

| | | | |
|-----|------------------------|---|---|
| 6.6 | Thermal shock 温度循环 | <p>After 5 cycle testing under the following conditions. the sample is allowed to stand under normal temperature and humidity condition for 2 hour. then measuring water drops should be eliminated 【无负荷时-25±2℃（15分钟） 常温常湿20±2℃（30分钟） 85±2℃（30分钟）循环放置重复做5次后，在常温常湿的室内，无负荷放置一小时以上.】</p> | <p>Contact resistance(4.1) Max 100mΩ insulation resistance(4.2) Min 100MΩ dielectric breakdown voltage: ac 500v 1 minute no breakdown insulation operating force(5.1)±30% gf before test there shall be no defects in appearance or in the mechanical functions 接触电阻: (4. 1)Max 100mΩ. 绝缘电阻: (4. 2)Min 100MΩ. 介电击穿电压: AC 500V. 1分钟无击穿绝缘控制力 (5. 1) ±30%gf 然 后测试，无论是外观还是机械性能上，都不得有任何缺陷.</p> |
| 6.7 | Solder ability 焊接能力 | <p>Reflow soldering: soldering temperature: 260±5℃, immersing time:3±0.5 second Iron tip: 30w iron/ceramic tip temp: 320±5℃/3 sec per pin 波峰焊，焊接温度：260±5℃，焊接时间：3±0.5，烙铁焊接温度：320±5℃，焊接时间：3±0.5</p> | <p>More than 75% of the part immersed can be covered with solder. 焊锡面积超过75%</p> |

- (1) Reflow soldering:
device: In-line or batch system
apply reflow soldering only once
(2) When soldering two or more terminals to the common land, use solder resist to solder them independently.
(1) 回流焊:
装置: 适用于回流焊只有一次。
(2) 当焊2个或2个以上的端子于同一个地方时，应分开焊接。



$T_p = 260^{\circ}\text{C}$
 $t_p = 10\text{sec. max.}$
 $T_l = 217^{\circ}\text{C}$
 $t_l = 90\text{sec. max.}$
 $T_{S\text{max}} = 200^{\circ}\text{C}$
 $T_{S\text{min}} = 150^{\circ}\text{C}$
 $t_s = 120\text{sec. max.}$

DSHP series DIP Switch

STANDARD SPECIFICATION

7. Durability 耐久性

| ITEM 项目 | TEST DESCRIPTION 测试描述 | TEST CONDITIONS 测试条件 | PECIFICATION 说明 |
|------------|--|---|---|
| 7.1 | Operation life with no load 无负荷下的运行 寿命 | 2000cycle operation at a rate of 15~20 cycle/minute 15-20回/分 钟寿命最小2000次 | Contact resistance: (4.1) Max 100mΩ. Insulation resistance: (4.2) Min 100MΩ dielectric breakdown voltage: ac 500v 1 minute no breakdown insulation operating force (5.1)±30%gf before test. there shall be no defects in appearance or in the mechanical functions. 接触电 阻: (4.1) Max 100mΩ 绝缘电阻: (4.2) Min100MΩ. 介电击穿电压: AC 500V. 1分钟无击穿绝缘控制力 (5.1) ±30%gf然后测试 无论是外观上, 还是在机械性能上都不得有任何 缺陷 |
| 7.2 | Operation life with load 载负荷下的运行 寿命 | DC 24V 25mA 1000 cycle operation at a rate of 15~20 cycle/minute 在DC 24V 25mA 的条件下, 以 15-20 回/分 钟, 寿命最小1000次. | |

8. Preservation condition 保存条件

Guarantee quality under condition of 23±2°C, 65%RH, preservation time > 1 year, validity 6 months can get the best result. (为保证品质, 在温度25±5°C, 相对湿度65%以下的环境保存可至少一年, 在6个月内使用, 效果更佳.)

9. Packing Specifications

| Package | Pole | 2 | 3 | 4 | 5 | 6 | 8 | 10 |
|-------------------|------|------|------|------|------|------|------|------|
| Tube管装 | Q'TY | 112 | 86 | 70 | 58 | 50 | 40 | 32 |
| Tape&Reel 编带卷装 | Q'TY | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 | 2000 |

单击下面可查看定价，库存，交付和生命周期等信息

[>>KINGTEK\(广督\)](#)