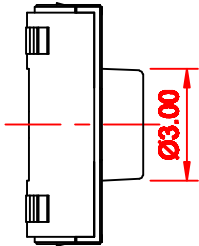
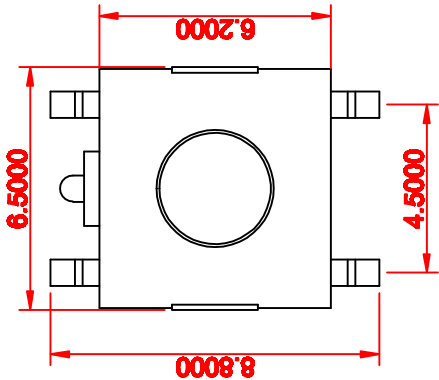
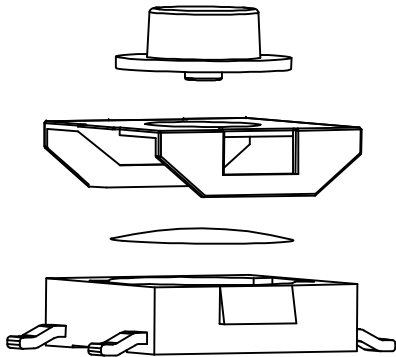
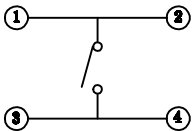


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H	H
2.5	2.7
3.1	3.4
3.7	3.8
4.3	4.8
5.0	5.2
5.5	



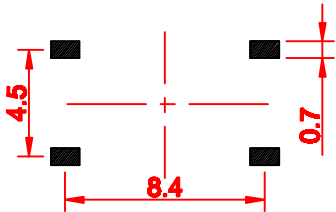
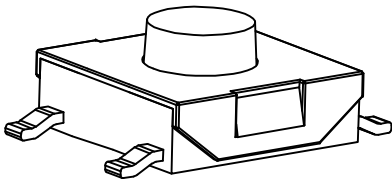
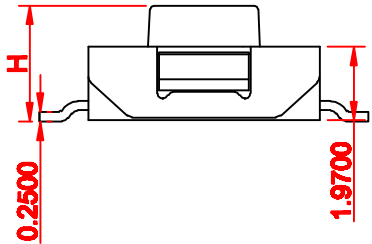
电路图

主要技术规格:

1. 额定值: 50mA DC12V
2. 接触电阻: 100mΩ
3. 操作力: 250±50gf
4. 行程: 0.25±0.1mm
5. 绝缘电阻: 100MΩ
6. 抗电强度: 250V 50HZ 1Min.
7. 寿命: 5万次

材料:

本体:PPA (黑色)
按钮:PPA (红色)
卡件: 黄铜 (镀银)
弹片: 磷铜 (复银)
盖板: 铁 (镀铜锡)



PCB. 焊接图

深圳市逸致电子有限公司 Shenzhen Yizhi Electronics Co., LTD					第一视角 			名称: 轻触开关
标记	处数	更改文件号	签名	日期	比例		一般公差	型号: YZA-064
设计					单位	mm	>0.5~2 ±0.10	
审核					重量		>2~5 ±0.25	
批准							>5~10 ±0.30	
							角度 ±0.5°	

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产 品 承 认 书

SPECIFICATION FOR APPROVAL

客户名称 Customer: _____	客户代码 Customer Code: _____
客户料号 Customer NO.: _____	本公司料号 Model NO.: 6.2X6.5XH
规格名称 Description: 6.2X6.5XH	日 期 Date: _____

☐ 新品承认 New Product Approve	☐ 规格变更承认 Description Change Approve	☐ 材料变更承认 Material Change Approve
设 计 Designed	审 核 Checked	批 准 Approved

客户确认栏 Customer approval

采 购 Purchase Dept.	品 质 QC Dept.	工 程 Engineering Dept.	批 准 Approve

结 论 Conclusion	☐ 合 格 Qualified	☐ 重新送样 Sample Test Again	☐ 不合格 Unqualified
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	产品承认书 SPECIFICATION	产品名称 Product name	轻触开关 Tact Switch	版本 Edition	A
		型 号 Model	6.2X6.5XH	Page	1/8

1、 概述

General

1.1 适用范围

Application

此承认书适用与机械式轻触开关的相关要求

This specification is applied to the requirements for Tact Switch（Mechanical Contact）

1.2 工作温度范围

Operating Temperature Range

-20℃～70℃（在标准大气压、标准湿度条件下）

-20℃～70℃（Normal humidity,normal air pressure）

1.3 贮存环境

Storage environment

开关应贮存在温度为-5～35℃、相对湿度不大于80%,周围空气中无酸、碱或其它腐蚀性气体的库房中。

The switch should be stored in warehouse which temperature of -5～35℃, relative humidity of not more than 80%, no acid, alkali and other corrosive gases in the ambient air

1.4 测试条件

Test Conditions

在没有其他特定的条件下，应该在以下的条件进行测试和测量：

Unless otherwise specified, tests and measurements shall be made in the following standard conditions:

常温.....5℃～35℃

Normal Temperature.....5℃～35℃

相对湿度.....65%±5%

Normal Humidity65%±5%

标准大气压.....86KPa～106KPa

Normal air pressure86KPa～106KPa

在制造过程中，测试和测量应该在以下的条件下进行：

If any doubt arise from the judgment,test shall be conducted at the following conditions:

温度.....20℃±2℃

Temperature20℃±2℃

相对湿度.....65%±5%

Relative humidity65%±5%

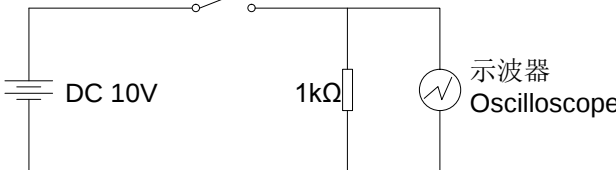
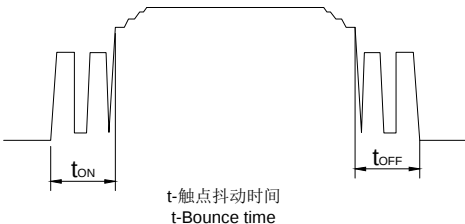
环境气压.....86KPa～106KPa

Air pressure86KPa～106KPa

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		型 号 Model	6 . 2X6 . 5XH	Page	2/8

- 2、 详细说明
Detailed specification
- 2.1 外观：应无影响、降低产品性能的缺陷；
Appearance: There should be no defects that affect the serviceability of product.
- 2.2 结构尺寸和安装尺寸：应符合装配图要求；
Structure and dimension: shall conform to the assemble drawings.
- 2.3 操作形式：有触觉反应的操作
Type of actuating: Tactile feedback.
- 2.4 开关结构：单回路单输出（具体的触点结构在装配图中已绘出）
Contact arrangement: 1 pole, 1 throw
(Details of contact arrangement are given in the assembly drawings)
- 2.5 开关工作额定值：DC 12V，50mA（有效值）
Ratings: 12V DC, 50mA (effective value)
- 3、 电气性能：
Electrical Specification

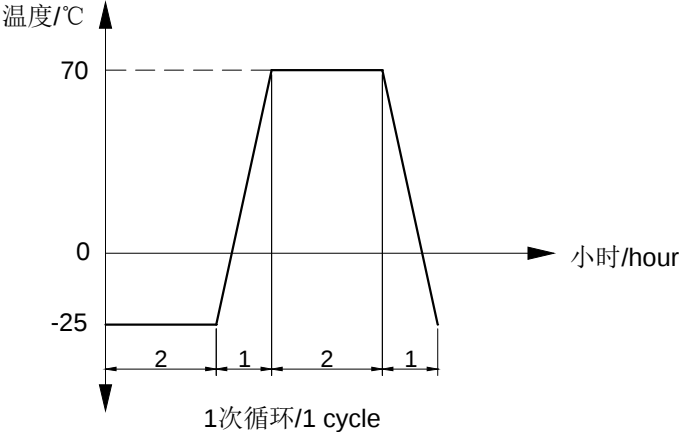
项 目 Item		试验条件 Test Conditions	要求 Requirements
3.1	接触电阻 Contact Resistance	在以5V 10mA的直流电源或不低于1KHz的交流电源的电路中，以一个等于2倍按力的静负荷施加于手柄中心 Applying a static load of 2 times operating force to the center of the stem, measurement shall be made by 5V DC 10mA or more than 1KHz AC small-current contact resistance meter.	≤100mΩ
3.2	绝缘电阻 Insulation Resistance	在端子之间施加 DC 100V/1min 的条件下，测量端子之间底座、盖板的电阻值 Measurement shall be made following application of 100V DC potential, across terminals, and across terminals and cover, for one minute.	≥100MΩ
3.3	介质耐压 Dielectric voltage proof	在端子之间施加250V AC（50Hz或60Hz）/1min 250V AC (50Hz or 60Hz) shall be applied across terminals, for one minute.	无击穿、无飞弧 There should be no breakdown and flashover

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		型 号 Model	6.2X6.5XH	Page	3/8
项 目 Item		试验条件 Test Conditions		要求 Requirements	
3.4	触点抖动 Bounce	按照正常使用时的力度轻按手柄中心（每秒3~4次），在导通和断开过程中测试开关抖动 Lightly striking the center of the stem at a rate encountered in normal use (3 to 4 times per second), and bounce shall be tested at "ON"and "OFF". 受试开关 Switch  DC 10V 1kΩ 示波器 Oscilloscope  t-触点抖动时间 t-Bounce time		t _{ON} -3msec.max t _{OFF} -8msec.max	
4.机械性能： Mechanical Specification					
4.1	按力 Operating Force	开关垂直于操作方向放置，在开关驱动件顶端中心逐渐施力，测量开关导通所需的最大力度。 Placing the switch such that the direction of switch operation is vertical and then gradually the load applied to the center of the stem, the maximum load required of the switch to come to a stop shall be measured.		100g±30g See Appendix 1 Switch (load - travel) test chart	
4.2	最大行程 Full Travel	开关垂直于操作方向放置，以一个等于2倍按力的静负荷施加在开关驱动件顶端中心，测量顶端移动的距离。 Placing the switch such that the direction of switch operation is vertical and then applying static load of 2 times operating force to the center of the stem:the travel distance for the switch to come to a		0.25±0.1mm See Appendix 1 Switch (load - travel) test chart	

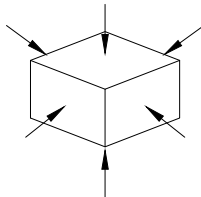
产品承认书 SPECIFICATION		产品名称 Product name	轻触开关 Tact Switch	版本 Edition	A
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	项 目 Item	试验条件 Test Conditions		要求 Requirements	
4.3	回弹力 Return Force	开关垂直于操作方向放置，在开关驱动件顶端中心下降至全行程后，测量顶端向自由位置转换的力度。 The sample switch is installed such that the direction of switch operation is vertical and upon depressing the stem in its center to the whole travel distance, the force of the stem to return to its free position shall be measured.		0.4 N.min See Appendix 1 Switch (load - travel) test chart	
4.4	静止强度 Stop Strength	开关垂直于操作方向放置，从操作方向向驱动件施加30N的静负荷持续60秒。 Placing the switch such that the direction of switch operation is vertical, and then a static load of 30N shall be applied in the direction of stem operation for a period of 60 s.		无机械和电气损坏 There shall be no sign of damage mechanically and electrically	
4.5	手柄强度 Stem Strength	开关垂直于操作方向放置，反方向实施最大操作里，并测量手柄的行程范围。 Placing the switch such that the direction of switch operation is vertical and than the maximum force to withstand a pull applied opposite to the direction of stem operation shall be measured.		20N.min	
4.6	接线端强度 Terminals Strength	开关接线端应能承受10N轴向拉力10s±1s的作用。 Switch terminals should be able to withstand the axial tension of 10N for 10s + 1s.		试验后接线端子应无脱落、破损，开关应能动作 After the test terminals should be without any fall off, damage, the switch should be able to function	
4.7	可焊性 Solderability	在以下设定条件下进行测量： Measurements shall be made following the test forth below: (1) 焊接温度：245±5℃ Solder temperature:245±5℃ (2) 浸入时间：2±0.5s Immersion time: 2±0.5s 对于其它步骤参考《GB5095.6-86》试验12a The other steps please refer to 《GB5095.6-860》TEST 12a		接线端粘锡面积≥90% Except for the edge, the coating should cover a minimum 90%	

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	项 目 Item	试验条件 Test Conditions		要求 Requirements	

5.极限电气性能：
Environmental Specification

5.1	低温测试 Resistance to low temperature	样品应按照以下试验条件进行测试，试验后样品应放在常温及标准湿度的环境1小时候做性能测试： Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 h before measurements are made: (1) 温度：-25±2℃ Temperature: -25±2℃ (2) 时间：16h time: 16h	接触电阻：≤200mΩ Contact resistance: ≤200mΩ 项目：3,4.1,4.2,4.3 Item: 3,4.1,4.2,4
5.2	高温测试 Heat resistance	样品应按照以下试验条件进行测试，试验后样品应放在常温及标准湿度的环境中1小时候做性能测试： Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 h before measurements are made: (1) 温度：70±2℃ Temperature: 70±2℃ (2) 时间：72h time: 72h	接触电阻：≤200mΩ Contact resistance: ≤200mΩ 项目：3,4.1,4.2,4.3 Item: 3,4.1,4.2,4
5.3	温度周期性测试 Change of temperature	根据下面的测试要求进行5次循环的温度周期性测试，试验后样品应放在常温及标准湿度的环境中1小时后做性能测试。测试期间样品应保持干燥。 After 5 cycles of following conditions, the sample shall be allowed to stand under normal temperature and humidity conditions for 1 h. and measurements shall be made. During the test water drops shall be removed.  温度/℃ 70 0 -25 2 1 2 1 小时/hour 1次循环/1 cycle	接触电阻：≤200mΩ Contact resistance: ≤200mΩ 项目：3,4.1,4.2,4.3 Item: 3,4.1,4.2,4

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	项 目 Item	试验条件 Test Conditions		要求 Requirements	
5.4	湿温测试 Moisture resistance	样品应按照以下试验条件进行测试，试验后样品应放在常温及标准湿度的环境1小时候做性能测试： Following the test set forth below the sample shall be left in normal temperature and humidity conditions for 1 h before measurements are made: (1) 温度：60±2℃ Temperature: 60±2℃ (2) 相对湿度：90%~95% relative humidity: 90% to 95% (3) 时间：96h time: 96h (4) 擦除水珠 Water drops shall be removed.		接触电阻：≤200mΩ Contact resistance: ≤200mΩ 项目：3,4.1,4.2,4.3 Item: 3,4.1,4.2,4	
5.5	盐雾试验 Salt Mist	在以下设定条件下进行测量： The switch shall checked after following test: (1) 温度：35±2℃ Temperature: 35±2℃ (2) 盐溶液浓度：5±1%（质量百分比） salt solution: 5±1%(solids by mass) (3) 时间：8±1h time: 8±1h		金属上没有腐蚀斑点 No remarkable corrosion shall be recognized in metal part	
6.极限机械性能： Endurance Specification					
6.1	工作寿命 Operation life	根据下面的测试要求进行测试： Measurement shall be made following the test set forth below: (1) DC 12V,50mA带负载 DC 12V,50 mA resistive load (2) 按动速率：2~3 次/秒 Rate of operation: 2~3 times/s (3) 按力：按力的1.5倍 Operating Force: Operating Force 1.5 times (4) 平均无故障寿命：≥100000次 Average Life Expectancy: ≥100000次		接触电阻≤200mΩ Contact resistance ≤200mΩ 按力：初值的±30% Operating Force: initial value ±30% 项目：3,4.1,4.2,4.3 Item: 3,4.1,4.2,4	

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	项 目 Item	试验条件 Test Conditions		要求 Requirements	
6.极限机械性能： Endurance Specification					
6.2	振 动 Vibration	根据以下给定条件进行测试： Measurement shall be made following the test forth below: (1) 扫描周期：10～55～10Hz约一分钟内 Vibration frequency range:10 to 55 to 10Hz in one minute. (2) 振幅（峰-峰）：1.5mm Amplitude: 1.5mm (3) 振动方向：包括手柄行程方向在内的三个相互垂直的方向 Direction of vibration: Three mutually perpendicular direction including the direction of stem travel (4) 测试时间：每个方向2小时,共6小时。 Duration: 2 hours each, for a total of 6 hours.		项目： 3,4.1,4.2,4.3 Item: 3,4.1,4.2,4	
6.2	耐冲击 Impact Shock Resistance	加速度500m/s²，脉冲持续时间11ms，三个轴线的每个方向上，每个方向三次，共18次。 Acceleration of 500m/s², pulse duration 11ms, each direction of the 3 axis, 3 times in each direction, a total 18 times. 		项目： 3,4.1,4.2,4.3 Item: 3,4.1,4.2,4	
7.焊接条件： Soldering Conditions:					
7.1	手工焊接 Hand soldering	请按以下条件进行焊接： Please practice according to below conditions: (1) 焊锡温度： ≤350℃ Soldering temperature: 350℃ Max (2) 连续焊接时间： ≤3s Continuous soldering time: 3s Max			

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	项 目 Item		试验条件 Test Conditions					要求 Requirements		
7.2	波峰焊 Conditions for wave soldering 适用于直插式开关 Applied to plug-in switch		项目Items		条件Condition					
			助焊剂附着量 Flux built-up		不附着于零部件贴装面的程度 Mounting surface should not be coated with flax					
			预热温度 Preheating temperature		印刷电路板焊接面的周围温度100℃ max Ambient temperature of the soldered surface of PC board. 100℃ max					
			预热温度时间 Preheating time		60s max					
			焊接温度 Soldering temperature		260℃ max					
			焊接浸渍时间 Continuous dipping time		5s max					
			焊接次数 Number of soldering		2 次以下 2 times max					
7.3	回流焊 Conditions for reflow soldering 适用贴片式开关 Applied to surface mount switch		温度(℃) Temperature 260℃ max. 3sec max. 230℃ 180 150 常温 Normal temperature 时间 Time 120s.max.(预热)preheat 40s max 3 to 4min							

注意事项:
Cautions:

- 1、开关浸焊后，注意不要用溶剂清洗开关。
After switches were soldered,please do not clean switches with solvent.
- 2、防止助焊剂从开关的上部流入到开关的内部。
Safeguards the switch assembly against flux penetration from its solvent.
- 3、注意不要施加超负荷的压力或晃动开关。
Please be cautions not to give excessive static load or shock to switches.
- 4、开关浸焊后，印刷基板注意不要叠放。
Please be careful not to pile up P.W.B. after switches were soldered.
- 5、保管时尤其应注意避开高湿高温和有腐蚀性气体的环境。如需要长时间保存，请不要打开包装箱。
Preservation under high temperature and high humidity or corrosive gas should be avoided
Especially. when you need to preserve for a long period, do not open the caron.