



# S16系列规格书

## S16 SERIES SPECIFICATION

### 1. 一般事项General

#### 1-1. 适用规格Scope

本规格书适用于 S16型开关。

This specification applies to S16mm size switch

#### 1-2. 标准状态Standard atmospheric conditions

除另有规定外，测量应在以下状态下进行：

Unless otherwise specified, the standard range of atmospheric conditions for making measurements and test is as following limits:

温度 Ambient temperature : 15°C to 35°C

相对湿度 Relative humidity : 25% to 85%

气压 Air pressure : 86kpa to 106kpa

如果对在上述所提到的条件中所做的实测值有疑问的话，应使用以下条件进行测量：

If doubt arises on the decision based on the measured values under the above-mentioned Conditions, the following conditions shall be employed:

温度 Ambient temperature : 20±1°C

相对湿度 Relative humidity : 63% to 67%

气压 Air pressure : 86kpa to 106kpa

#### 1-3. 使用温度范围

Operating temperature range : -21°C to +70°C

#### 1-4. 保存温度范围

Storage temperature range : -30°C to +80°C

### 2. 构造Construction

#### 2-1. 尺寸Dimensions

见所附成品图Refer to attached drawing

### 3. 额定值Rating

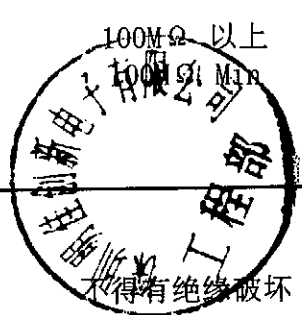
#### 3-1. 额定电压

Rated voltage :DC 16V

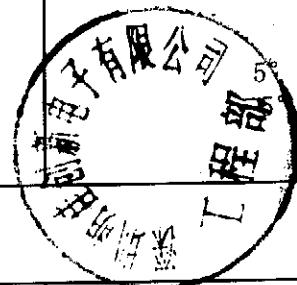
#### 3-2. 最大额定电流（阻抗负载）

Maximum operating current (resistive load) 0.3A

### 4. 电气性能Electrical Characteristics

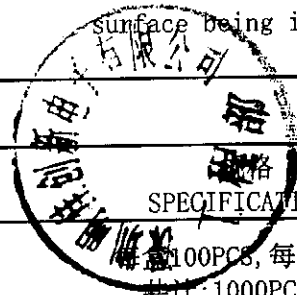
项目 ITEM	条件 CONDITIONS	规格 SPECIFICATIONS	
		极数 Poles	段数 Sections
4-1. 开关电路接入点数 Switch circuit and Number of pulse	详见所附成品图 Refer to attached drawing	1	5
4-2. 绝缘阻抗 Insulation resistance	在端子和支架间施加电压500V DC 1 分钟。 Measurement shall be made under the condition which a voltage of 500V DC 1 min is applied between individual terminals and frame		
4-3. 耐电压 Dielectric strength	在端子和支架间施加电压AC1300V 电 压1分钟 A voltage of 1300V AC shall be applied for 1 minute between individual terminals and frame		

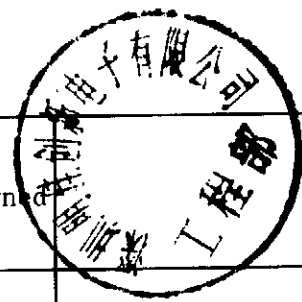
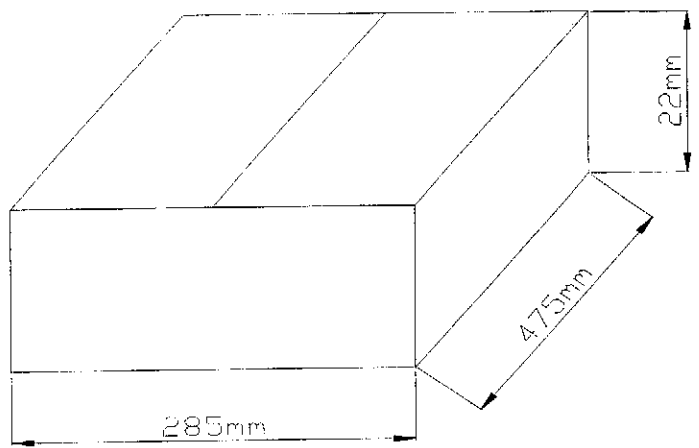
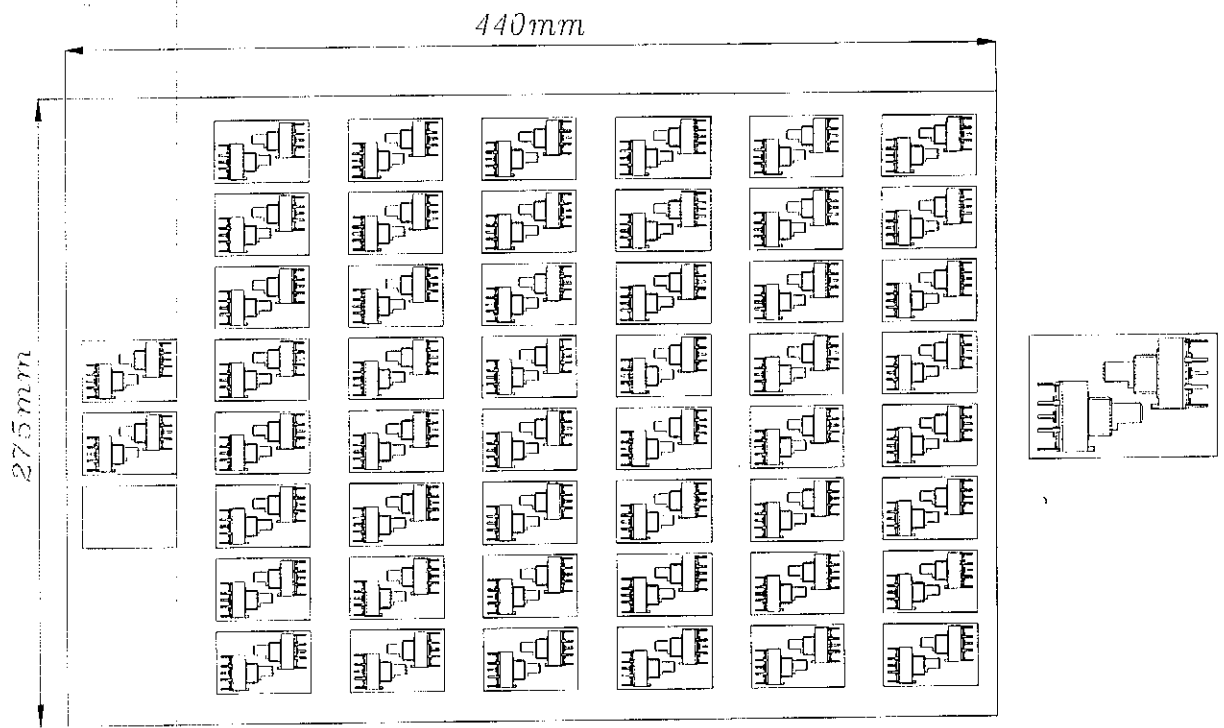
4-4. 端子间接触阻抗 Contact resistance	出力信号处于ON时安定状态条件下测定 Measurement shall be stable condition which a Output signal is ON	寿命前: 50mΩ 以下 寿命后: 1Ω 以下
5. 机械性能 Mechanical Characteristics		
5-1. 转换角度 Changeover angle		45° ±3° (one-step operating angle)
5-2. 旋转力矩 Rotational torque		200-500gf.cm
5-3. 轴的推拉强度 Push-pull Strength of shaft	在轴端, 沿轴向施加10Kg的静负荷力推和拉各10秒钟(产品焊锡固定在PCB上.) Push and pull static load of 8Kg shall be applied to the shaft in the axial direction for 10s. (After soldering of the PCB board)	轴向虚位间隙0.4以内 Shaft play in axial direction 0.4 Max
5-4. 端子强度 Terminal strength	在端子的先端施加5N(500gf)的力1分钟. A static load 5N(500gf) be applied to the tip of terminals for 1 minute in any direction.	端子无损坏, 无过度的松度, 允许变形. Without damage or excessive looseness of terminals. Terminal bend is permitted.
5-5. 轴套螺纹紧固强度 Bushing Nut Tighten Strength		7.0Kgf.cm 以上 7.0Kgf.cm Min
5-6. 止动强度 End stop strength		6.0Kgf.cm 以下 6.0Kgf.cm Max
5-7. 轴向间隙 Shaft play in axial direction		0.4mm以下 0.4mm Max
5-8. 轴摆动 Shaft wobble	在距离轴顶端5MM处, 沿径向瞬间施加50mN.m(500gf.cm)的力测试 A momentary load of 500gf.cm should be applied at the point 5mm from the tip of the shaft in a direction perpendicular to the axis of shaft.	0.7*L/30mm p-p以下(L:指安装平面到轴的柄端的距离.) 0.7*L/30mm p-p Max L:Distance between mounting surface and measuring point on the shaft
5-9. 轴的回转方向摆动 Shaft play in rotational wobble	用角度板测定. Testing by angle board.	5° 以下 Max
6. 耐久性能Endurance Characteristics		
项目 ITEM	条件 CONDITIONS	规格 SPECIFICATIONS



<p>6-1. 回转寿命 Rotational life</p>	<p>在无负荷条件下轴以600~800周/小时速度回转, 24小时连续5000~8000次. The shaft of switch shall be rotated at speed of 600~1000 cycles /H without electrical load, after with measurements shall be made (5000 to 8000 continuous cycles for 24 hours.)</p>	<p>25000±200周 25000±200 cycles per below 尚余有轻微定位感. 端子间接触阻抗1Ω以下 Detent feeling has to remains Contact resistance 1Ω Max</p>
<p>6-2. 耐湿性 Damp heat</p>	<p>温度40±2℃, 湿度90~95%的恒温恒湿槽中放置 96±4小时后, 在常温、常湿中放置1.5小时后测试. The switch shall be stored at temperature of 40±2℃ with relative humidity of 90~95% for 96±4 in a thermostatic chamber. And the switch shall be subjected to standard atmospheric conditions for 1.5H, After which measurements shall be made.</p>	<p>所有项应满足初期规格 Specifications in clause All items is shall be satisfied</p>
<p>6-3. 耐热性 Dry heat</p>	<p>温度80±3℃, 的恒温箱中放置96±4小时, 常温、常湿放置1.5小时后测试. The switch shall be stored at a temperature of 80±3℃ for 96±4H in a thermostatic chamber, And then the switch . Shall be subjected to standard atmospheric conditions for 1.5H, After which measurements shall be made.</p>	<p>所有项应满足初期规格. Specifications in clause all items is shall be satisfied</p>
<p>6-4. 低温特性 Cold</p>	<p>温度-40±3℃的恒温箱中放置96±4小时, 常温、常湿放置1.5小时后测试. The switch shall be stored at a temperature of -40±3℃ for 96±4H in a thermostatic chamber, And then the switch . Shall be subjected to standard atmospheric conditions for 1.5H, After which measurements shall be made.</p>	<p>所有项应满足初期规格. Specifications in clause all items is shall be satisfied</p> 

<p>6-5. 焊锡耐热性 Resistance to soldering heat</p>	<p>槽焊Dip soldering . 使用基板:t=1.6mm的单面覆铜板. Printed wiring board :single-sided copper clad laminate board with thickness of 1.6mm. 预热:基板表面温度100℃以下,时间1分钟以内. Preheating:1.Surface temperature of board:100℃ or less 2.Preheating time :within 1 minute 焊接:温度260±5℃或以下,时间3秒以内. Soldering :solder temperature: 260±5℃ or less Immersion time :within 3S 手焊 Manual soldering 温度350℃以下,时间3秒以内. Bit temperature of soldering iron:350℃ less than Application time of soldering iron :within 3S</p>	<p>不得有绝缘体的破损、变形、接触无异常 Electrical characteristics shall be satisfied No mechanical abnormality</p>
<p>6-6. 盐雾试验 Salt mist</p>	<p>无明显锈迹,无变色 No apparent rust and discoloration</p>	<p>在温度为35±2℃,浓度(重量比)为5±1%的条件下,进行8小时连续喷雾后取出水洗. Test should be made with temperature of 35±2℃ and concentration of 5±1% (by weight) for 8 h. Then clean with wate</p>
<p>6-6. 焊锡性 Solderability</p>	<p>端子在260℃±5℃的温度的焊锡槽内浸锡3秒±0.5秒. The terminals shall be immersed into solder bath at 260℃ for 3S±0.5S.</p>	<p>浸渍面须有75%以上焊锡附着 A new uniform coating of solder shall cover 75% minimum of the surface being immersed</p>
<p>7. 包装部分 Packing Portion</p>		
<p>项目 ITEM</p>	<p>条件 CONDITIONS</p>	<p>规格 SPECIFICATIONS</p>
<p>7-1. 包装方式 Packing</p>	<p>使用吸塑盒和纸箱包装Use plastic box and carton packaging.</p>	<p>100PCS, 每箱10盒 共计:1000PCS/箱 Put 100PCS products into foamed plastic plate, then pack 10plates into a carton, total 1000PCS/carton</p>





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RS16-001	初始发行	2019. 12. 14	
版本本号VERSION:			审核Check
A0			
受控编号Document No			批准Approved
SX-QW-03-RS16			



成品出货检验记录表

Type 产品型号	S1601XC1105-15FB7P-000			Lo No. 生产批号	样品				Amount 数量	10 PCS	Customer 客户	鑫汇科		
NO.	Tapers 项目	规格	NO.	1	2	3	4	5	6	7	8	9	10	检测工具
1	Total resistance 全阻值	R												
2	Resistance Taper 阻值线性													
3	Residual Resistance 残余阻值													
4	Slider Noise 滑动杂音													
5	Series 级数	1		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	
6	Number of segments 段数	5		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	
7	Contact Resistance between terminals端子间接触电阻	<50mΩ		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	F
8	Withstanding Voltage 耐电压	AC 1300V At 1Minute		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	K
9	Insulation Resistance 绝缘电阻	100MΩ min AtDC 500V		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	L
10	Total Rotational Angle 旋转角度	45° ± 3°		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	G
11	Rotational Torque 旋转力矩	200~500gf. cm		260	300	300	300	300	340	300	320	300	260	I
12	Mounting Dimensions 安装尺寸	15 ± 0.5mm		14.99	15.01	15.04	14.98	14.98	14.98	15.01	14.98	15	15.01	J
13	Mounting Height 安装高度	7 ± 0.1mm		6.98	6.97	6.95	6.98	6.98	7	6.99	6.98	7	6.99	J
14	Dimensions 外观	正常		OK	OK	OK	OK	OK	OK	OK	OK	OK	OK	
检测工具代码: 阻值机=A 万用表=B 杂音机=C CD机=D 同步机=E 开关接触电阻测试仪=F 角度测量仪=G 扭力表=H 扭力计=I 卡尺=J 耐压计=K 绝缘电阻测试仪=L														
外观 (抽样方案: N= 只 H= 只 AQL= n= Ac= Re=														
描述: 经全检未发现不良														
QA判定: <input checked="" type="checkbox"/> 合格 <input type="checkbox"/> 不合格 QA: 邓威 日期: 2020-11-12														

