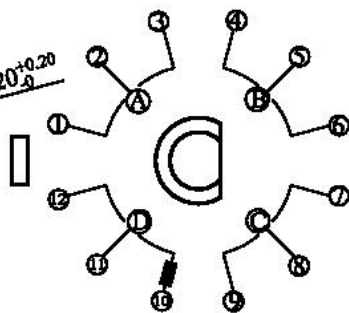
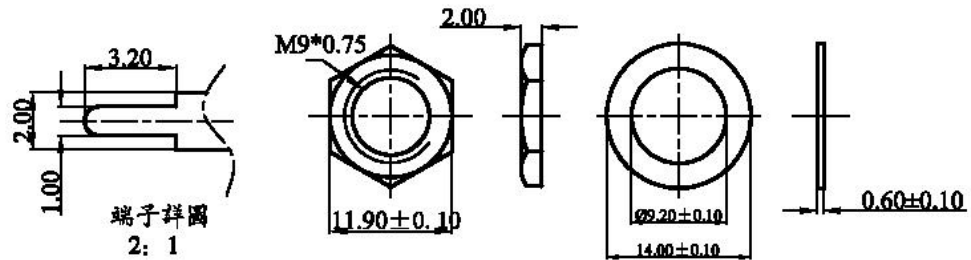


P.C.B. Mounting hole detail



Switch contact status



3					
2					
1					
序號	日期	修正內容	圖號	SR2511-A1-20F-0403S-30°-S030	
未指定容許差尺寸之公差		比例	審核	校對	制圖
10≥L	±0.3	:			
10<L≤30	±0.5	單位			
30<L≤100	±1.0	mm			
角度	±5	第三角法			

制品名稱	旋转开关	寧波永佳電子科技有限公司	編號	SEI100510-08
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1.0 SCOPE 目的

Application : The specification Is applicable signal selector used In electronic equipment .
 此規格主要適用於一般電子機器之微小電流信號切換式開關。

2.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS 可應用的檔和規格

See product drawings and ally other sections of this specification for the relevant documents .
 In case where tile product specification differs from the product drawings , the product drawings take precedence .

在看產品圖及此規格的相關參考文件的任何部分，若發現產品規格與產品圖不同，產品圖應優先。

3.0 Criteria 範圍

Unless otherwise specified , tile standard range of atmospheric conditions for making measurements and conducting tests Is as follows ;

排除使用詳細說明以外的方法。製造、測量及試驗在大氣環境標準範圍如下：

3-1 Ambient temperature : 15°C ~35°C

周圍溫度：15°C ~35°C

3-2 Relative humidity: 25% ~85%

相對濕度：25% ~85%

3-3 Atmospheric pressure : 86kPa~106kPa

氣壓：86kPa~106kPa

3-4 Operating temperature range : -10°C ~ +70°C

操作溫度範圍：-10°C ~ +70°C

3-5 Storage temperature range : -40°C ~ +85°C

保存溫度範圍：-40°C ~ +85°C

※ If there Is any doubt about the results , measurements shall be made within the following condition :

發生判定疑問或另有特別要求則以基準狀態：

Ambient temperature 周圍溫度 20°C±1°C

Relative humidity 相對濕度 63%to 67%

Air pressure 氣壓 86kPa to 106kPa

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②						
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序號	來	曆	日期	核准	審查	作成

制品名稱	旋轉開關	寧波永佳電子科技有限公司		編號	SEI100510-08
機種	SR2511	Ningbo Ever Best Electronics&Technology Co., Ltd		頁次	2/3
4. MECHANICAL CHARACTERISTICS 機械性能規格					
ITEM 項目		Test Condition 測試條件		SPECIFICATIONS 規格	
4-1	Toatal rotational angle 總回轉角度			360° (Endless) 360° (无止擋點)	
4-2	Step angle 單步角度			30° ±3°	
4-3	Shaft stop strength 止檔強度	The following torsion moment load of 5Kgf.cm shall be applied to the shaft for 5sec at both ends(after fixation). 固定後于軸芯轉動末端加 5Kgf.cm 力矩並持續 5 秒。		Electrical characteristics shall be satisfied with specification. 電氣性能符合規定要求。	
4-4	Operating force 動作力	N/A		400~800gf.cm	
4-5	Push-pull strength of shaft 軸推拉強度	Push and pull static load of 8Kg shall be applied to the shaft in the axial direction for 10s.(After soldering of the PC board) 在軸端，沿軸向施加 8Kg 的靜負荷力推和拉各 10 秒鐘（焊錫固定在 PCB 上）		Without damage or excessive play in shaft No excessive abnormality in rotational feeling. And electrical characteristics shall be satisfied. 軸無破損，回轉無異常。電氣性能無異常。	
4-6	Terminal strength 端子強度	A static force of 500gf being applied In one direction on the tip of the Terminal for 10s. One time per terminal · 端子前端任意方向施加 500gf 之靜負荷 10 秒（每支端子限制一次）		The terminal may be deformed but shall not sustain any problem as deviation and breaking of terminal and breaking of insulation material electrical performance of the above 4 shall be assured · 不能有端子脫落，破壞及絕緣板破損之現象，端子可以彎曲且試驗設需通各電氣性能	
4-7	Actuator strength 操作強度	A static force of 1 Kgf being applied in the direction of operation (stopper-side) for minute · 沿操作部之動作方向（止動側）加靜負荷 1 Kgf 1 分鐘 A static force of 1 Kgf being applied In the direction of pulling for 1 minute (The test of self-lock must be unlock) 在操作的拉出方向加 1Kgf 加靜負荷 1 分鐘（單動者，於目標狀解除後，再作試驗）		Shall be free from pronounced wobble , deformation , and mechanical abnormalities 不能有顯著的鬆動，彎曲及機械異常現象發生	
4-8	Soldering 焊錫性	Temperature of solder 焊錫溫度: 260±5°C Duration of dipping 浸泡時間: 3 秒±1 秒		More then 90 % of the dipped part shall be covered by solder 焊錫覆蓋 75%以上浸泡處	
4-9	Soldering heat resistance 耐焊錫性	Flow soldering condition 錫爐溫度 to be performed ! 113 seconds within250±5°C Manual soldering condition 手焊溫度 to be performed In 3 seconds within350±5°C		No abnormalities shall be observed In appearance and operation shall be assured · The section 5 below · 外觀無顯著變形及動作無異常，且滿足第 5 項之電氣性能	
4-10	Control wobble 軸晃動	Shall be measured by applying a static load of 100 gf.cm to the tip of control unit · 適用於靜止狀態下，於操作處頂端施壓 100gf.cm		Less than 1 mm 小於 1 mm	
4-11	Nut tightening strength 螺母緊固強度	Nut tighten with 10Kgf.cm 螺母緊固強度為 10Kgf.cm		Without excessive uneven rotation feeling occur 不可有回轉發生打滑	
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製品名稱	旋轉開關	寧波永佳電子科技有限公司		編號	SEI100510-08
機種	SR2511	Ningbo Ever Best Electronics&Technology Co., Ltd		頁次	3/3
5. Electrical Performance Specifications 電氣性能規格					
ITEM 項目		Test Condition 測試條件		SPECIFICATIONS 規格	
5-1	Contact resistance 接觸阻抗	電壓下降法測定 Shall be Measured at 1 KHz±200KHz (Max 50mA , Max 20mV) or 5VDC , 1mA by a voltage drop method		50mΩ Max 50mΩ 以下	
5-2	Insulation resistance 絕緣阻抗	To be 1leastred with an insulation device of 500V DC between all the terminals and between the terminals frame for minute ± 5 seconds 以 500V DC 之電壓加於端子相互間及端子與外殼間 1 分 ± 5 秒測試之		More than 10MΩ 超過 100MΩ	
5-3	Voltage proof 耐電壓	500V AC(50~60Hz)being applied between all the adjacent terminals and between all the terminals and between the terminals and the frame for 1minute ± 5 Sec 以 500V AC 之電壓加於端子相互間及端子與外殼間 1 分 ± 5 秒測試之		No breaking Insulation 耐電壓不可有絕緣破壞現象	
5-4	Rating 額定電壓電流			DC 30V , 0.3A	
5-5	Timing 接觸方式			<input type="checkbox"/> Shorting(短路型) <input checked="" type="checkbox"/> No shorting (非短路型)	
6. endurance performance specifications 耐久性規格					
6-1	Operating life (Without load) 無負載壽命	10,000cycle operating at rate of 15/20 cycle /minute without load 在無負載下連續動作 10 , 000 次 (15~20 次/分)		Contact resistance : Max 1Ω 接觸阻抗 : 1Ω 以下 Operating force : 3.0kgf 動作力 : 3.0kgf	
6-2	Operating life (With load) 負載壽命	10,000cycle operating at rate of 15/20 cycle /minute with a load of 0.2A 20V DC DC 30V 0.3A 阻抗負載下連續動作 10 , 000 次 (15~20 次/分)		Contact resistance : Max 1Ω 接觸阻抗 : 1Ω 以下 Operating force : 3.0kgf 動作力 : 3.0kgf	
6-3	Damp heat 耐濕性	The switch shall be stored at temperature pf 40±2℃ with relative hu-midity of 90% to 95% for 96±4H in a thermostatic chamber. And the encoder shall be subjected to standard atmospheric conditions for 1.5H. After which measurements shall bo made. 溫度 40±2℃, 濕度 90~95%的恒溫恒濕中放置 96±4 小時后, 在常溫常濕中放置 1.5 小時后測試。		Specifications in clause all items is shall be satisfied. 所有項應滿足初期規格。	
6-4	Dry heat 耐熱性	The switch shall be stored at a temperature of 80±3℃ for 240±4H in a thermostatic chamber. And then the encoder shall be subjected to standard atmospheric conditions tor 1.5H. After witch measurement shall be made. 溫度 80±3℃的恒溫箱中放置 240±4 小時, 常溫、常濕放置 1.5 小時后測試。		Specifications in clause all items is shall be satisfied. 所有項應滿足初期規格。	
6-5	Cold proof 低溫特性	The switch shall be stored at a temperature of -25±3℃ for 96±4H in a thermostatic chamber. And then the encoder shall be subjected to standard atmospheric conditions tor 1.5H. After witch measurement shall be made. 溫度-25±3℃的恒溫箱中放置 96±4 小時, 常溫、常濕放置 1.5 小時后測試。		Specifications in clause all items is shall be satisfied. 所有項應滿足初期規格。	
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