深圳市劲宇电子有限公司

Shenzhen Jinyu Electronics Co., Ltd

承　　认　　书
Specifications For Approval

Customer Model		Part No.	
Jinyu Model	编码器系列	Part No.	JEB9874-L1101-02G-104

Approved by Jinyu		
Approved by	Checked by	Prepared by
温道静	王燚盛	黄萌

Approved by Customer	
Research & Development	Quality Assurance

Remark:
1:This product specification is considered as the technical agreement between the receiving customer and Jinyu, Any information on the general product catalogue which is in conflict with or differentform from the corresponding information of this document is considered as invalid.
2:If customer issue purchase orders without confirmation by signature of this specification after receipt,such confirmation will be considered as granted upon receipt of the first purchase order.

客　户　签　署 (盖章)
Sing for customer approved

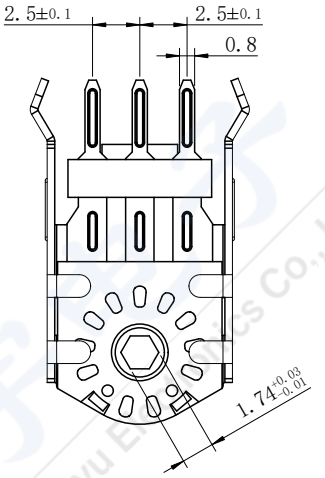
劲 宇 签 署 (盖章)
Sing for Jinyu approved

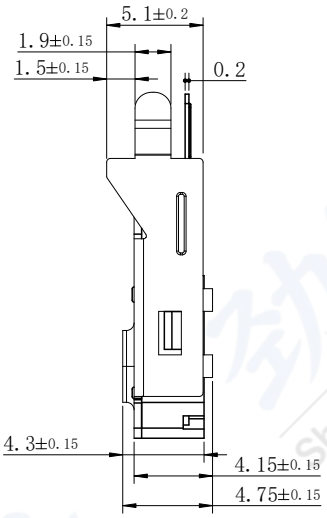
确认日期：　　年　月　日　　送承认日期：　　年　月　日

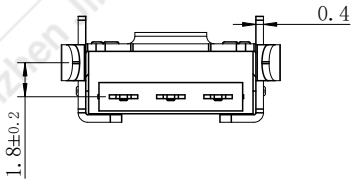
变 更 履 历 表

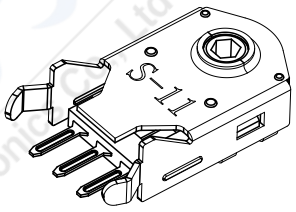
REV	变更内容描述 DECSRIPTION	修订日期 DATE	生效日期 DATE	变更人 NAME
A	新版发行	2026.06.10	2026.06.19	黄萌

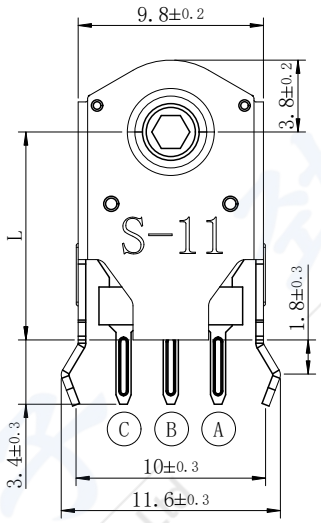
Shenzhen Jinyu Electronics Co., Ltd		文件编号	JY-011
		发布日期	2026年6月19日
ENCODER PRODUCT SPECIFICATION 编码器产品规格书		文件版次	第A版 第1次修订
P/N 产品型号	JEB9874-L1101-02G-104	页 码	共7页 第2页

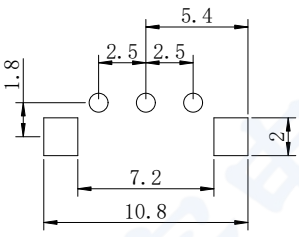












焊接图

Genral Tolerance:±0.2mm L=11±0.2mm

No.	NAME	MATERIAL	QTY.	FINISHING
6	支架	SPCC	1	Ni-P
5	转柄	POM	1	GREY
4	定位片	SUS	1	ECRU
3	编码片	PHOSPHOR COPPER	1	ECRU
2	底座	PA66	1	BLACK
1	端子	BRASS	1	Ag-P

一、一般特性（General Characteristics）

1.1 适用范围：该规格书适用于普通型或超薄型编码器的一般适用范围。

Application :This specification is applied to the rotary encoder which is ordinary or ultrathin for general applications.

1.2 使用温度范围： -25°C～+85°C.....Operating Temperature Range : -25°C to +85°C

1.3 相对湿度：≤85% at +40%.....Operating Relative Humidity: ≤85% at +40%

1.4 实验条件：若没有特别说明，则实验大气条件如下：

Test Conditions: Unless otherwise specified,the atmospheric conditions for making measurements and tests are as follows:

1.4.1 环境温度：5°C～35°C.....Ambient Temperature：5°C～35°C

1.4.2 相对湿度：45-85%RH.....Relative Humidity: 45-85%RH

4.4.3 大气压力：86-106Kpa(860-1060mbar).....Air Pressure: 86-106Kpa(860-1060mbar)

二、外观，结构及尺寸（Appearance, Structure and Dimensions）

2.1 外观：产品外观良好，无锈蚀、裂纹和镀层缺陷。

Appearance: The products shall have good finishing, and no rust, crack or plating defects.

2.2 结构及尺寸：参见产品图纸。

Structure & Dimensions: Refer to individual product drawing.

2.3 标识：参见产品图纸。

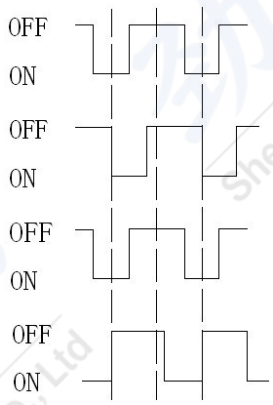
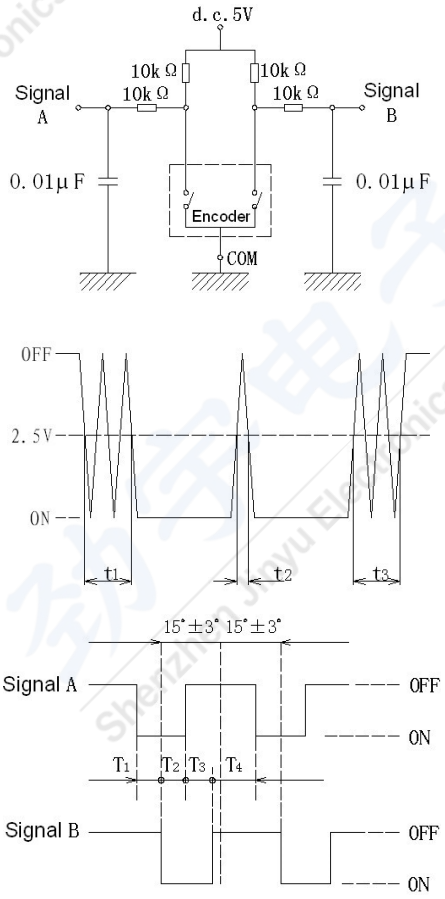
Markings: Refer to individual product drawing.

三、额定负荷（Ratings）

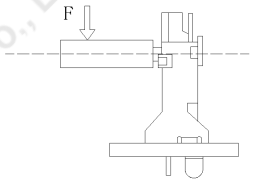
5VDC/1mA

四、电气特性 Electrical Characteristics

No.	项目 Item	标准 Criteria	实验方法 Test Method
4.1	接触电阻 Contact Resistance	200mΩ Max.	在 1KHz 微小电流(100mA)以下测试。 Measured at 1KHz small current(100mA or less).
4.2	绝缘电阻 Insulation Resistance	50MΩ Min.	在相互绝缘的所有端子之间及各接线端子与外露的非载流金属零件之间加载 250V 直流电，持续时间 60±5S。 250VDC voltage is applied between each pair of terminals and between the terminal and the metal frame for 60±5S.
4.3	耐压强度 Dielectric withstand in voltage	无击穿现象发生。 No dielectric breakdown shall occur.	在相互绝缘的所有接线端子之间及各接线端子与外壳或非载流金属零件之间加载 2500V 交流电，持续时间 60±5S。 2500VAC is applied between non-connected terminals and between terminals and the metal frame for 60 ±5s.

<table>
<tr><td rowspan="4">4.4</td><td rowspan="4">输出信号
Output Signal
Format</td><td colspan="2">/</td><td>A . B 两信号输出相位差，输出波形详细见图，卡点位置如图所示，虚线表示带卡点装置的上擎子处位子
2Phase-different signal A and signal B ,Output derails is shown as following figure.The broken line shows detent position.</td></tr>
<tr><td>轴回转方向
Shaft Rotational Direction</td><td>信号
Signal</td><td>输出波形
Output</td></tr>
<tr><td rowspan="2">顺时针方向
C.W</td><td>A(A~C 端子间）
A(Terminal A~C)</td><td rowspan="3">
</td></tr>
<tr><td>B(B~C 端子间）
B(Terminal B~C)</td></tr>
<tr><td rowspan="2">逆时针方向
C.C.W.</td><td>A(A~C 端子间）
A(Terminal A~C)</td></tr>
<tr><td>B(B~C 端子间）
B(Terminal B~C)</td><td></td></tr>
<tr><td>4.5</td><td>切换特性
Bouncing</td><td colspan="2">测量条件：旋转速度 360° / s。
1、在 2.5V 时开关的每个切换位置之间跳动相位，t1. t3≤5ms
2、电压超过 2.5V 电位状态的滑动干扰相位，t2≤5ms
Measure condition: 360° /S for rotational speed.
1、Specified by the Signal's passage time to 2.5V each switch position. t1. t3≤5ms .
2、Specified by the time voltage change exceed 2.5v in code on area.t2≤5ms.</td><td>
</td></tr>
</table>

五、 机械特性（Mechanical Characteristics ）

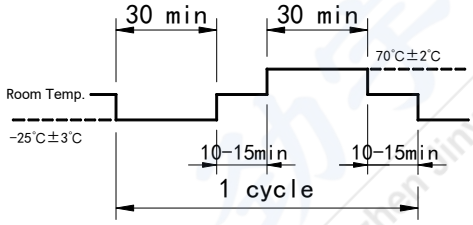
No.	Item 项目	Criteria 标准	Test Method 实验方法
5.1	旋转力矩 Rotational force	20±5gf.cm	在操作元件末端沿操作方向均匀施加静载荷，使操作元件转换到动作位置。 Apply a tension meter on the midpoint of the actuator (or tip of the shaft) to supply a pressure vertically from its free position to operating position.
5.2	执子点数及位置 Detent points	24 个定位点（每个定位角度：15° ±3° ） 24 detent poins (each detent angle: 15° ± 3°)	/
5.3	分解能 Output resolution	各相 12 脉波 360° 12 pulse / 360°	/
5.4	冲击 Mechanical Shock	表面无变形且操作无异常。 Shall be free from mechanical abnormalities.	试件焊接与 P.C.B.施加静载荷 50gf.cm.Min。 Mount the product to P.C.B and apply static Force (F) of 50gf•cm/5s . 
5.5	振动 Vibration Proof	实验后： 接触电阻：5Ω Max. 绝缘电阻： 10MΩ Min. 无功能性不良。表面及结构无明显变形。 After test, Contact resistance:5Ω Max. Insulationresistance:10MΩMin. No functional defective occur ,No abnormalities shall be recognized in appearance and construction.	开关采用常规的安装方法牢固地安装在试验设备上，并在下述参数条件下进行试验： 1. 振频=10-55Hz 2. 振幅 1.5mm 3. 振动变化速率：10-55-10Hz 大约 1 分钟 4. 变频方法：对数或线性型式 5. 振动方向：三个相互垂直的方向，其中一个方向应是促动元件运动的方向。 6. 时间：每个方向 2 小时（共 6 小时）。 Switch shall be secured to a testing machine by a normal mounting device and method. Switch shall be measured after following test： 1. Vibration frequency range：10~55 Hz 2. Total amplitude:1.5mm 3. Sweep ratio:10~55~10Hz Approx. 1 min 4. Method of changing the sweep vibration frequency: logarithmic or linear 5. Direction of vibration: Three perpendicular directions including actuating direction. 6. Duration: 2 hours (6 hours in total)

六、耐久性能（Durability Characteristics）

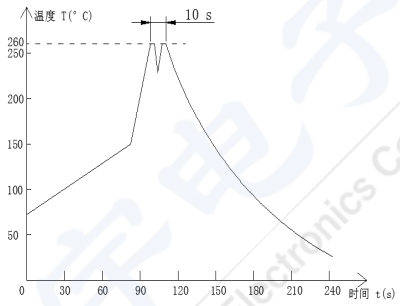
No.	项目 Item	标准 Criteria	实验方法 Test Method
6.1	动作寿命 Operation life	实验后：接触电阻：5Ω Max. 绝缘电阻：10MΩ Min. 操作力范围：10gf.cm.Min. 编码器外观及结构应无损坏。 After test:Contact resistance: 5Ω Max. Insulation resistance :10MΩ Min. Operating force: 10gf.cm.Min. The Encoder shall be free from abnormalities in appearance construction.	在 1mA,5VDC 条件下，速度为 600~1000 次/时，在寿命试验设备上至少连续转换 200,000 以上。 In the 1mA, 5VDC, speed of 600~1000 /, in life testing equipment for at least more than 200,000 conversion.

七、 耐候性能（Weather Proof Characteristics）

No.	项目 Item	标准 Criteria	实验方法 Test Method
7.1	低温 Cold Proof	实验后： 接触电阻：5Ω Max. 绝缘电阻： 10MΩ Min. 无功能性不良。开关外观及结构应无损坏。 After test,Contact resistance: 5Ω Max. Insulation resistance:10MΩ Min. No functional defective occur.The switch shall be free from abnormalities in appearance & construction.	试件在-25±2℃的温控箱内保持 48 小时，然后在正常温度和湿度下恢复 1 小时，并在此后 1 小时内对试品进行测量，水滴应消失。 After testing at –25 ± 2°C for 48 hours, the switch shall be allowed to stand under normal temperature and humidity conditions for 1 hour, and measurement shall be made within 1 hour after that. Water drops shall be eliminated.
7.2	高温 Hot Proof		试件在 70±2℃的温控箱内保持 48 小时，然后在正常温度和湿度下恢复 1 小时，并在此后 1 小时内对试品进行测量。 After testing at 70 ± 2°C for 48 hours, the switch shall be allowed to stand under normal temperature and humidity conditions for 1 hour, and measurement shall be made within 1 hour after that.
7.3	恒定湿热 Moisture Resistance		试件在 40±2℃，90-95%RH 的温控箱内保持 96 小时，然后在正常温度和湿度下恢复 1 小时，并在此后 1 小时内对试品进行测量，水滴应消失。 After testing at 40± 2° C ,90~95% RH for 96 hours, the switch shall be allowed to stand under normal temperature and humidity conditions for 1 hour, and measurement shall be made within 1 hour after that. Water drops shall be eliminated.
7.4	盐雾实验 Salt Mist	在金属件上没有腐蚀斑点。 No remarkable corrosion shall be recognized in metal part.	试件在下述实验后，盐沉积物用水冲掉，测量 The switch shall be checked after following test，After test, salt deposit shall be removed by running water. 1．温度：35±2.....Temperature: 35± 2° C 2．盐溶液浓度：5±1%.....Salt Solution: 5±1% 3．时间：8±1 小时.....Duration: 8±1 hour

7.5	温度转换 Temperature Cycling	实验后： 接触电阻：5Ω Max. 绝缘电阻： 10MΩ Min. 无功能性不良。开关外观及结构应无损坏。 After test,Contact resistance: 5Ω Max. Insulation resistance:10MΩ Min. No functional defective occur.The switch shall be free from abnormalities in appearance & construction.	试件按下述实验条件试验 5 次，然后在正常温度和湿度下恢复 1 小时，并在此后 1 小时内对试品进行测量，水滴应消失。 After 5 cycles of following conditions, the switch shall be allowed to stand under normal temperature and humidity conditions for 1 hour, and measurement shall be made within 1 hour after that. Water drops shall be eliminated. 

八、焊接条件（SOLDERING CONDITIONS）

No.	项目 Item	标准 Criteria	实验方法 Test Method
8.1	可焊性 Solderability	除边缘外涂层应均匀覆盖 90%以上。 Except for the edge, the coating should cover a minimum 90%.	在以下设定条件下进行测量: Measurements shall be made following the test set forth below: 1. 焊接温度:240±5℃.....Solder temperature : 240±5℃ 2. 浸入时间:3s±0.5s .....Immersion time: 3s±0.5s
8.2	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℃ Max. .....Soldering temperature: ≤350℃ 2. 连续焊接时间：3s Max. .....Continuous soldering time: ≤3 s	
8.3	波峰焊 Wave-soldering	(1) 预热温度时间 Preheating time.....60s max. (2) 焊接温度 Soldering temperature.....245℃ max. (3) 焊接浸渍时间 Continuous dipping time.....5s max. (4) 焊接次数.....最多两次 Number of soldering.....2 times max.	

九、注意事项(Notes)：

1. 防止助焊剂从产品的顶端渗入。
   Prevent flux penetration from the top of the product.
2. 产品浸焊后，注意不要用溶剂或类似品清洗产品。
   After products were soldered,please be careful not to clean it with solvent or other similar products.
3. 浸焊后，注意不要在顶部施加负荷。
   Right after products were soldered;please be careful not to load to on the knobs of products.
4. 注意不要施加超负荷的压力或晃动产品。
   Please be cautions not to give excessive static load or shock to products.