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| <b>Product Specification</b> [产品规格书]:                | Document No  | <b>PS-HRS-9026-01</b> |
| <b>Subject</b> [主题]:                                 | Date Issued  | <b>2021/11/22</b>     |
| 2.50mm Pitch HRS-9026 Series Connector Specification | Date Revised |                       |
|                                                      | Version      |                       |

This specification is referred to the 2.50mm series board in connector

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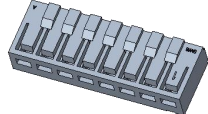
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#### 【1.适用范围 Scope】

此种规格包括 2.50mm Pitch HRS-9026 Series 连接器规格说明.

This Specification Covers the 2.50mm Pitch HRS-9026 Series Connector Specification.

#### 【2.规格与料号 Spec and Part number】

| 规格内容<br>Specification | 产品料号<br>Production No. | 产品图示<br>Picture of Product                                                            |
|-----------------------|------------------------|---------------------------------------------------------------------------------------|
| 端子/Terminal           | HRS-9026TXV-PSN        |    |
| 胶壳/Housing            | HRS-9026HV-XX-N0       |  |

#### 【3.材质与表面处理 Disposal of Material and surface】

| 规格内容<br>Specification | 材 质<br>Materials               | 表面处理<br>Disposal of Surface                 |
|-----------------------|--------------------------------|---------------------------------------------|
| 端子/Terminal           | 磷铜/Phosphor Bronze<br>黄铜/Brass | Tin Plated: Over 100μ" .Nickel: Over 50μ" . |
| 胶壳/Housing            | PA66                           | UL 94V-0                                    |

(上述参数请以工程图为准/Please Refer to the Project drawing for the above Specification)

#### 【4. 额定等级 Ratings and applicable wires】

| 项 目【Item】                           | 规 格【Standard】               |                              |
|-------------------------------------|-----------------------------|------------------------------|
| 额定电压 Rated Voltage (Max.)           | 250V                        | [AC/DC]                      |
| 额定电流 Rated Current (Max.)           | 3A                          |                              |
| 使用温度范围 Ambient temperature Range    | -40℃~+105℃                  |                              |
| 适用线径 Applicable wire insulation O.D | AWG#20~22<br>(0.50~0.35mm²) | Insulation O.D. 1.60mm(Max.) |
|                                     | AWG#24~26<br>(0.22~0.13mm²) |                              |

【 \*升温时含端子.Including terminal temperature rise. 】

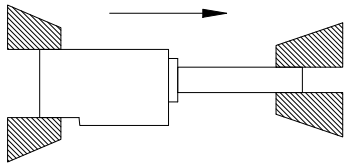
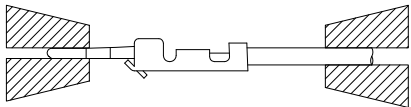
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**【5.性能 PERFORMANCE】**
**5-1. 电气的性能 Electrical Performance.**

| 项 目<br>【Item】 |                                                           | 条 件<br>【Test Condition】                                                                                                                                                               | 规 格<br>【Requirement】                      |
|---------------|-----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| 5-1-1         | 绝缘阻抗<br>Insulation<br>Resistance                          | 公母配合,在相邻端子之间,使用 500V 的直流电,检测连接器.<br>Mate connectors, apply 500V DC between adjacent terminal or ground.<br>(Based upon EIA-364-21B / MIL-STD-202 Method 302 Cond.B)                   | 1000 Megohms Min.                         |
| 5-1-2         | 耐电压<br>Dielectric<br>Strength                             | 公母配合,在相邻端子,端子与地片之间,使用 1000V 的交流电 1 分钟,检测连接器.<br>Mate connectors, apply 800V AC for 1 minute between adjacent terminal or ground.<br>(Based upon EIA-364-20A / MIL-STD-202 Method 301) | 不出现中断等情况<br>No Breakdown<br>and Flashover |
| 5-1-3         | 铆线后端子接触<br>阻抗 Contact<br>resistance on<br>crimped portion | 铆线后之端子,开放电压 20mV 以下,电流 10mA 检测连接器.<br>Crimp the applicable wire on to the terminal measure by dry circuit 20mV MAX, 10mA.                                                             | 5 milliohms Max.                          |

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### 5-2. 机械的性能 Mechanical Performance.

| 项 目<br>【Item】 |                                                  | 条 件<br>【Test Condition】                                                                                                                                                                                 | 规 格<br>【Requirement】                                                                 |                                 |                                 |                                 |                                 |
|---------------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| 5-2-1         | 端子保持力<br>Terminal/<br>Housing<br>Retention Force | <p>以每分 <math>50\pm3\text{mm}</math> 的速率,将端子从 Housing 内轴向拔出的力量.</p> <p>Apply axial pull out force at the speed rate of <math>50\pm3\text{mm/minute}</math> on the terminal assembled in the housing.</p> | 14.7N {1.5kgf} Min.                                                                  |                                 |                                 |                                 |                                 |
|               |                                                  |                                                                                                                      |                                                                                      |                                 |                                 |                                 |                                 |
| 5-2-2         | 端子插入力<br>Terminal Insertion<br>Force             | <p>铆线后之端子插入 Housing 所需最大力量.</p> <p>Insert the crimped terminal into the housing.</p>                                                                                                                    | 14.7N {1.5kgf} Max.                                                                  |                                 |                                 |                                 |                                 |
| 5-2-3         | 端子压着强度<br>Crimped contact                        | 固定铆线后的端子,使电线与端子分离时所需的最小力量.                                                                                                                                                                              | AWG 线号<br>(平方毫米)                                                                     | #20<br>(0.50<br>$\text{mm}^2$ ) | #22<br>(0.35<br>$\text{mm}^2$ ) | #24<br>(0.22m<br>$\text{m}^2$ ) | #26<br>(0.13<br>$\text{mm}^2$ ) |
|               |                                                  | Fix the crimped terminal, apply axial pull out force on the wire. (Do not crimp insulation part).                                                                                                       | Spec.<br>kgf<br>Min.                                                                 | 6.0                             | 4.0                             | 3.0                             | 1.3                             |
|               |                                                  |                                                                                                                      | Note> As for unspecified wire sizes in this specification define values with clients |                                 |                                 |                                 |                                 |

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**5-3. 环境性能及其它 Environmental Performance and Others.**

| 项 目<br>【Item】 |                          | 条 件<br>【Test Condition】                                                                                                                                                                                                                                                                        | 规 格<br>【Requirement】                               |                     |
|---------------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|---------------------|
| 5-3-1         | 温升测试<br>Temperature Rise | 公母连接器配合后, 加载额定电流直到温度上升到稳定状态, 然后再测量温升 (EIA364-70, Method 1)<br>Mating connectors shall be energized at rating current until thermal stability is achieved, and then measured the temperature rise.<br>(EIA364-70, Method 1)                                                                     | 温升测试<br>Temperature rise                           | 30°C Max.           |
| 5-3-2         | 振动测试<br>Vibration test   | 振幅: 1.5mm P-P<br>时间: 20~200~20 Hz in 3minute<br>持续时间: 每轴向 3 小时<br>加速度: 44m/S <sup>2</sup><br>开放电压: 20mV 以下<br>开放电流: 10mA 以下<br>Amplitude: 1.5mm P-P<br>Sweep time: 20~200~20 Hz in 3 minute<br>Duration: 3 hours in each X.Y.Z axials. (Based upon EIA-364-28B/MIL-STD-202 Method 213B Cond.A) | 外观<br>Appearance                                   | 无异状<br>No Damage    |
|               |                          |                                                                                                                                                                                                                                                                                                | 瞬断<br>Discontinuity                                | 1 micro-second Max. |
|               |                          |                                                                                                                                                                                                                                                                                                | 电压降落<br>Voltage Drop                               | 20mV/A Max          |
| 5-3-3         | 冲击测试<br>Shock test       | 在 X.Y.Z 上 6 个方向上, 以 981m/s <sup>2</sup> (100G 的力量)冲击下各 3 回. 作用时间: 6ms<br>981m/s <sup>2</sup> {100G}, 3 strokes in each X.Y.Z. axes.<br>Operation time: 6ms<br>(Based upon EIA-364-27B/MIL-STD-202 Method 213B Cond. A)                                                                         | 外观<br>Appearance                                   | 无异状<br>No Damage    |
|               |                          |                                                                                                                                                                                                                                                                                                | 瞬断<br>Discontinuity                                | 1 micro-second Max. |
| 5-3-4         | 耐寒性<br>Cold Resistance   | -40±5°C, 96 hours.<br>(Based upon EIA-364-105)                                                                                                                                                                                                                                                 | 外观<br>Appearance                                   | 无异状<br>No Damage    |
|               |                          |                                                                                                                                                                                                                                                                                                | 铆线后端子接触阻抗<br>Contact resistance on crimped portion | 10 milliohms Max.   |
| 5-3-5         | 耐热性<br>Heat Resistance   | 105±2°C, 96 hours.<br>(Based upon MIL-STD-202 Method 108A Cond.A)                                                                                                                                                                                                                              | 外观<br>Appearance                                   | 无异状<br>No Damage    |
|               |                          |                                                                                                                                                                                                                                                                                                | 铆线后端子接触阻抗<br>Contact resistance on crimped portion | 10 milliohms Max.   |

|                                                      |                         |                                                                                                                                                                                                                                           |                                                    |                                                                     |                       |
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|                                                      |                         |                                                                                                                                                                                                                                           |                                                    | Version                                                             |                       |
| 5-3-6                                                | 耐湿性<br>Humidity         | 温度: $60\pm 2^{\circ}\text{C}$<br>湿度: 90~95%(RH)<br>持续时间: 96 hours<br>Temperature: $60\pm 2^{\circ}\text{C}$<br>Relative Humidity: 90~95%<br>Duration: 96 hours<br>(Based upon EIA-364-31A/MIL-STD-202 Method 103B Cond.B)                 | 外观<br>Appearance                                   | 无异状<br>No Damage                                                    |                       |
|                                                      |                         |                                                                                                                                                                                                                                           | 铆线后端子接触阻抗<br>Contact resistance on crimped portion | 10 milliohms Max.                                                   |                       |
|                                                      |                         |                                                                                                                                                                                                                                           | 耐电压<br>Dielectric Strength                         | Must meet 5-1-2                                                     |                       |
|                                                      |                         |                                                                                                                                                                                                                                           | 绝缘阻抗<br>Insulation Resistance                      | 100 Megohms Min.                                                    |                       |
| 5-3-7                                                | 盐水喷雾<br>Salt Spray      | 在温度 $35\pm 2^{\circ}\text{C}$ , 盐水浓度 $5\pm 1\%$ 下, 盐水喷雾 $48\pm 1$ 小时.<br>$48\pm 1$ hours exposure to a salt spray from the $5\pm 1\%$ solution at $35\pm 2^{\circ}\text{C}$ .<br>(Based upon EIA-364-26B/MIL-STD-202 Method 101D Cond.B). | 外观<br>Appearance                                   | 无异状<br>No Damage                                                    |                       |
|                                                      |                         |                                                                                                                                                                                                                                           | 铆线后端子接触阻抗<br>Contact resistance on crimped portion | 10 milliohms Max.                                                   |                       |
| 5-3-8                                                | 焊锡附着性<br>Solder-ability | 焊接时间: 3~5 秒.<br>焊接温度: $245\pm 5^{\circ}\text{C}$ .<br>Soldering Time: 3~5second.<br>Solder Temperature: $245\pm 5^{\circ}\text{C}$ .<br>(Based upon EIA-364-52)                                                                           | Solder Wetting                                     | 浸渍面积需 95% 以上<br>95% of immersed area must show no voids, pin holes. |                       |
| WRITTEN BY: <u>Jova Lau</u>                          |                         |                                                                                                                                                                                                                                           |                                                    | APPROVED BY: <u>Kim Huang</u>                                       |                       |
|                                                      |                         |                                                                                                                                                                                                                                           |                                                    | Sheet: 6 of 7                                                       |                       |

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#### 6.测试顺序 QUALIFICATION TEST SEQUENCE

| Item<br>项目 | DESCRIPTION<br>叙述                               | SEQUENCE 顺序 |      |   |   |   |      |      |      |      |      |      | METHOD 方法 |
|------------|-------------------------------------------------|-------------|------|---|---|---|------|------|------|------|------|------|-----------|
|            |                                                 | A           | B    | C | D | E | F    | G    | H    | I    | J    | K    |           |
| 1          | Examination of product 外观检验                     | 1, 3        | 1, 4 | 1 | 1 | 1 | 1, 5 | 1, 5 | 1, 9 | 1, 3 | 1, 3 | 1, 3 |           |
| 2          | Insulation resistance 绝缘阻抗                      |             |      |   |   |   |      |      | 2, 6 |      |      |      | 5-1-1     |
| 3          | Dielectric withstanding Voltage 耐电压             |             |      |   |   |   |      |      | 3, 7 |      |      |      | 5-1-2     |
| 4          | 铆线后端子接触阻抗 Contact resistance on crimped portion |             |      |   |   |   | 2, 4 | 2, 4 | 4, 8 | 2, 4 | 2    |      | 5-1-3     |
| 5          | 端子保持力 Terminal/Housing Retention Force          |             |      | 2 |   |   |      |      |      |      |      |      | 5-2-1     |
| 6          | 端子插入力 Terminal Insertion Force                  |             |      |   | 2 |   |      |      |      |      |      |      | 5-2-2     |
| 7          | 端子压着强度 (Crimped contact)                        |             |      |   |   | 2 |      |      |      |      |      |      | 5-2-3     |
| 8          | TEMPERATURE RISING 温升测试                         | 2           |      |   |   |   |      |      |      |      |      |      | 5-3-1     |
| 9          | Vibration 振动测试                                  |             | 2    |   |   |   |      |      |      |      |      |      | 5-3-2     |
| 10         | 冲击测试 Shock test                                 |             | 3    |   |   |   |      |      |      |      |      |      | 5-3-3     |
| 11         | 耐热性 Heat Resistance                             |             |      |   |   |   | 3    |      |      |      |      |      | 5-3-4     |
| 12         | 耐寒性 Cold Resistance                             |             |      |   |   |   |      | 3    |      |      |      |      | 5-3-5     |
| 13         | 耐湿性测试 Humidity                                  |             |      |   |   |   |      |      | 5    |      |      |      | 5-3-6     |
| 14         | Salt spray 盐水喷雾                                 |             |      |   |   |   |      |      |      | 3    |      |      | 5-3-7     |
| 15         | Solderability 沾锡性                               |             |      |   |   |   |      |      |      |      |      | 2    | 5-3-8     |