

**TITLE AMP\* CIRCULAR WIRE PIN****DESIGN OBJECTIVES**

*The product described in this document has not been fully tested to ensure conformance to the requirements outlined below. Therefore, AMP Incorporated makes no representation or warranty, express or implied, that the product will comply with these requirements. Further, AMP Incorporated may change these requirements based on the results of additional testing and evaluation. Contact AMP Engineering for further details.*

**1. SCOPE****1.1 Content**

This specification covers the performance, tests and quality requirements for the AMP\* Circular Wire Pin.

**1.2 Qualification**

When tests are performed on the subject product line, the procedures specified in AMP 109 Series Specification shall be used. All inspections shall be performed using the applicable inspection plan and product drawing.

**2. APPLICABLE DOCUMENTS**

The following documents form a part of this specification to the extent specified herein. In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence. In the event of conflict between the requirements of this specification and the referenced documents, the specification shall take precedence.

**2.1 AMP Documents**

- A. 109-1 : General Requirements for Test Specifications
- B. 109 Series : Test Specifications as indicated in Figure 1

| DR       | DATE      | APVD | DATE |
|----------|-----------|------|------|
| A. Carbó | 18 Apr 95 |      |      |

Rev. A, Issue

**3. REQUIREMENTS**

**3.1 Design and Construction**

Terminals shall be of the design, construction and physical dimensions specified on the applicable product drawing.

**3.2 Materials**

Terminals shall be of the material and finish specified on the applicable customer drawing.

However, when a definite material or finish or heat treat is not specified, a material shall be used which will enable the terminal to meet the performance requirements of this specification.

**3.3 Test Requirements and Procedures Summary**

| TEST DESCRIPTION       | REQUIREMENT                               |                                 | PROCEDURE  |
|------------------------|---|---------------------------------|--|
| Examination of Product | Meets requirements of product drawing.    |                                 | Visual, dimensional and functional per applicable inspection plan    |
| <b>MECHANICAL</b>      |   |                                 |  |
| Crimp Tensile          | Wire Size<br>mm <sup>2</sup><br>0,75<br>1 | Crimp Tensile<br>100 N<br>120 N | Determine crimp tensile at a rate of 100 mm/minute, AMP Spec. 109-16 |

Figure 1

**3.5 Terminal Test and Sequences**

| TEST OR EXAMINATION    | Test Group (a)    |   |
|------------------------|-------------------|---|
|                        | 1                 | 2 |
|                        | Test Sequence (b) |   |
| Examination of product | 1                 | 1 |
| Crimp Tensile          | 2                 | 2 |

(a) See paragraph 4.1.A

(b) Numbers indicate the sequence in which tests are performed

Figure 2

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#### **4. QUALITY ASSURANCE PROVISIONS**

##### **4.1 Qualification Testing**

###### **A. Sample Selection**

Connector housings and contacts shall be prepared in accordance with application Instruction Sheets. They shall be selected at random from current production. Test group 1 shall consist of 10 samples crimped on a wire of 0,75 mm<sup>2</sup> of size. Test group 2 shall consist of 10 samples crimped on a wire of 1 mm<sup>2</sup> of size.

###### **B. Test Sequence**

Qualification inspection shall be verified by testing samples as specified in Figure 2 .

###### **C. Acceptance**

- (1) Requirements put on test samples, as indicated in the requirements portion of Figure 1, exist as either the upper or lower statistical tolerance limit (95% confidence, 99% reliability). All samples tested in accordance with this specification shall meet the stated tolerance limit.
- (2) Failures attributed to equipment, test setup, or operator deficiencies shall not disqualify the product. When product failure occurs, corrective action shall be taken and samples resubmitted for qualification.

##### **4.2 Requalification Testing**

Requalification shall be established by the cognizant divisional engineering function and may consist of all or any part of the overall qualification program provided that it is conducted within the required time period.

##### **4.3 Quality Conformance Inspection**

The applicable AMP quality inspection plan will specify the sampling acceptable quality level to be used. Dimensional and functional requirements shall be in accordance with the applicable product drawing and this specification.