

**1.SCOPE**

This specification covers the general description and performance requirements for the AMP SNAP-IN Cluster Rec. Contacts, that are designed for the .090" dia. Pin.

**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, this specification shall take precedence.

**3.REQUIREMENTS**

3.1 Design and construction

SNAP-IN Cluster Rec.Contact shall be of the design, construction and physical dimensions specified on the applicable product drawing.

3.2 .Material

STOL 76 R580; plain

3.3 Ratings

Voltage: 114/230 vac at 60 Hertz

3.4 Performance and Test Description

Snap-in Cluster re. Contact shall be designed to meet the electrical, mechanical and environmental requirements specified in figure 1.

<b>B</b>	REVISED SPEC. FOR ET00-0407-99	H.Y.	17 JAN 2000	C.T.	17 JAN 2000
<b>A</b>	FIRST EMISSION FOR ET00-0285-99	H.Y.	14 Sep 99	C.T.	14 Sep 99
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DR.		DATE	APVD		DATE
H. Yaali		22 Apr 99	C. Tartari		22 Apr 99

AMP Italia s.p.a., Collegno (TO), Italy

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This specification is a controlled document.

3.5 Test requirements and Procedures Summary

Test Description	Requirement	Procedure												
Examination of Product	Meet requirements of product drawing and AMP Spec. 114-2019	Visual, dimensional and functional per applicable inspection plan.												
Voltage Drop	2 mV/A (new contact) the voltage drop of wire must be detected.	Between two points: on wire at 1 cm from the insulation barrel and the pin of the fusite test current I=6A for 0.5 mm <sup>2</sup> wire I=8A for 0.75 mm <sup>2</sup> wire												
Temperature Rise over ambient temperature with current overload cycling	Max. increase of temperature detected on contact point: 45°C. Voltage Drop ≤4.5 mV/A	Crimped contact mated with fusite. Test current: 9A for 0.5 mm <sup>2</sup> wire 12A for 0.75 mm <sup>2</sup> wire 48 cycles. Each cycle is composed of: 45 min. current ON 15 min. current OFF												
Contact Engaging/Separating Force	1 <sup>st</sup> IN: 45N max per contact. 5 <sup>th</sup> OUT: 12N min. per contact.	Measure force to engage using appropriate gage No. 92-331588 as indicated in figure 3; AMP Spec. 109-35. Rate speed 60 ± 5 mm/min.												
Tensile Strength	<table border="1"> <thead> <tr> <th>Stranded Wire Size</th> <th>Tensile</th> </tr> <tr> <th>AWG</th> <th>mm<sup>2</sup></th> </tr> </thead> <tbody> <tr> <td>16</td> <td>1.3</td> </tr> <tr> <td>17</td> <td>1.0</td> </tr> <tr> <td>18</td> <td>0.75</td> </tr> <tr> <td>20</td> <td>0.5</td> </tr> </tbody> </table>	Stranded Wire Size	Tensile	AWG	mm <sup>2</sup>	16	1.3	17	1.0	18	0.75	20	0.5	Determine tensile at a rate of 25.4 mm/minute.
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AWG	mm <sup>2</sup>													
16	1.3													
17	1.0													
18	0.75													
20	0.5													

Figure 1

Maximum rated current that can be carried by this product is limited by maximum operating temperature of housings, and temperature rise of contacts. Variables which shall be considered for each application are:

- wire size
- connector size
- contact material
- ambient temperature

3.6 Snap-in Cluster rec. contact Tests and Sequences

Test or examination	Test Group		
	1	2	3
	Test Sequence		
Examination of Product	1	1	1
Voltage Drop	2 4	2 4	
Current Overload	3		
Contact Engaging/Separating Force		3	
Tensile Strenght			2

Figure 2

**4.QUALITY ASSURANCE PROVISIONS**

4.1 Qualification Testing

A. Sample Section

Contacts shall be selected at random from current production. Each test group shall consist of 10 contacts per wire 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. All samples tested in accordance with this specification shall meet the stated tolerance limit.
- (2) Failures attributed to equipment, test set-up, or operator deficiencies shall not disqualify the product. When product failure occurs, corrective action shall be taken and samples resubmitted for qualification.

4.2 Quality Conformance Inspection

Sampling procedures shall be in accordance with UNI ISO 2859. The applicable AMP inspection plan will specify the sampling acceptable quality level to be used. Dimensional and functional shall be in accordance with the applicable product drawing and this specification.

PIN GAGE NO. 92-331588

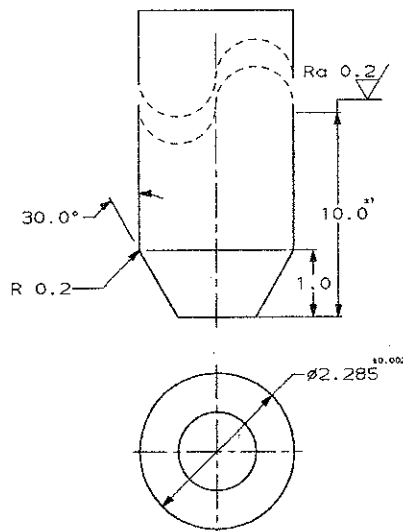


Figure 3