NUMBER 108-19078

SECURITY CLASSIFICATION

DC 1

PRODUCT SPECIFICATION

1. SCOPE:

1.1. Content.

This specification covers the performance, tests and quality requirements for AMP POWER LINKING TERMINALS suitable for FASTON* or POSITIVE LOCK receptacles. Available in 7 versions; these 7 versions are available with Ni plated ACTION PIN* legs or with SnPb 93/7 over Ni.

1.2. Definitions.

For the purpose of this specification, the following definitions shall apply:

A. .250" series Tab : A printed circuit board mounted device intended as an interface between the printed circuit board and power leads.

B. ACTION PIN* legs : The pins used on the power distribution tab for distributing current to the printed circuit board.

1.3. Qualification.

When tests are performed on the subject product line, the procedures specified in IEC 512 shall be used unless otherwise indicated. All inspections shall be performed using the applicable inspection plan and product drawing.

ETL USA Bagré

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 specifcation and the referenced documents, this specification shall take precedence.

2.1. AMP documents:

R 041-1694 Qualification Test Report

2.2. Drawings:

167890 167891
167892 215511
215512 215268
215269

2.3. Other documents:

IEC 512 Test SpecificationSeries

*Trademarks

product code: 0279

LTR	REV. RECORD	DR.	DATE
B	EH-0449-94	RvL	01 JUL 94
A	EH-0353-93	RvL	26 MAY 93
0	H-9910	RvL	29 JUN 92

DR. R. v. Lokven DATE 29 jan 92
CHK. W. de Cock DATE 29 jan 92
APP. M. Spooren DATE 29 jan 92

AMP AMP-HOLLAND B.V. 's-Hertogenbosch, The Netherlands.

NAME POWER LINKING TERMINAL

NO. 108-19078 SHEET 1 OF 5 REV. B

LOC. H SIZE A4

R6-76 (REV.09-91)

PRODUCT SPECIFICATION

3. REQUIREMENTS:

3.1. Design and Construction:

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

3.2. Materials:

Base Material: Phos. Bronze
Plating: Tin-Lead over Nickel

3.3. Ratings:

A. Current: 40 amperes, 8 positions; 30 amperes, 6 positions.
B. Operating temperature -55°C to 85°C including heating effects of the tab.

3.4. Performance and Test Description:

The product is designed to meet the electrical, mechanical and environmental performance requirements specified in 3.5. as tested per test sequence in 3.6.
All tests are performed at ambient environmental conditions per IEC specification 512-1 unless otherwise specified.

3.5. Test Requirements and Procedures Summary.

Para	Test Description	Requirements	Procedure
3.5.1.	Examination of Product	Meets requirements of product drawing and application specification.	Visual, dimensional and functional per applicable quality inspection plan.
		ELECTRICAL	
3.5.2.	Contact Resistance	Max. rise 5 mΩ after tests	Measure between body of terminal and connecting printed circuit pad. Max voltage 20 mV Max. current 100 mA IEC 512-2 test 2a
3.5.3.	Temperature rise vs current	Max. 30°C temperature rise at rated current.	Apply rated current. Measure temperature after stabilization. See fig. 2 IEC 512-3 test 5a.
3.5.4.	Current cycling		Subject tabs to 250 cycles at 125 % of rated current for 15 minutes "on", 15 min. "off".

3.5. Test Requirements and Procedures Summary (cont'd).

Para	Test Description	Requirements	Procedure
		MECHANICAL	
3.5.5.	Insertion Force ACTION PINS	1500 N maximum for 8 position 1125 N maximum for 6 position	Measure force necessary to mount Power Linking Terminal onto test board illustrated in Fig. 1 using proper insertion tooling.
3.5.6.	Extraction Force ACTION PINS	240 N min. for 8 position 180 N min. for 6 position.	Measure force necessary to remove Power Linking Terminal from printed circuit board.
		ENVIRONMENTAL	
3.5.7.	Thermal Shock		Subject p.c.b. mounted terminals to 5 cycles of 30 min. at -55°C and 30 min. at +85°C IEC 512-6 test 11d.
3.5.8.	Dry Heat		Subject p.c.b. mounted terminals to 85°C for 56 days IEC 512-6 test 11i.

3.6. Test Sequence for Qualification.

Test Group	Test	Paragraph
1	Contact Resistance Temperature rise / current Current cycling Contact resistance	3.5.2. 3.5.3. 3.5.4. 3.5.2.
2	Insertion force Extraction force (half lot) Thermal Shock Dry Heat Extraction force (half lot)	3.5.5. 3.5.6. 3.5.7. 3.5.8. 3.5.6.

4. QUALITY ASSURANCE PROVISIONS.

4.1. Qualification Testing.

A. Sample selection.

Terminals shall be selected at random from current production.
Group 1 shall be inserted in p.c. boards in accordance with figure 1, having copper pads of sufficient size for the relevant test current.
Tabs linked with Faston (Bronze, tinplated) receptacles and wire 4 mm^2, length 25 cm min.
10 Terminals with 8 Action Pins and 10 terminals with 6 Action Pins.

Group 2 shall consist of 10 terminals with 8 Action Pins and 10 terminals with 6 Action Pins and testboards in accordance with figure 1. (Insertion during test).

B. Test Sequence.

Qualification inspection shall be verified by testing samples as specified in Paragraph 3.6.

4.2. Requalification Testing.

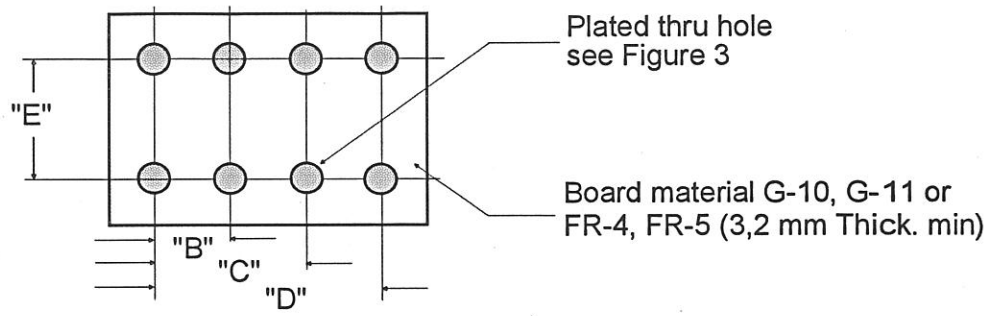
If changes significantly affecting form, fit or function are made to the product or to the manufacturing process, product assurance shall coordinate requalification testing, consisting of all or part of the original testing sequence as determined by development/product, quality and reliability engineering.

4.3. Acceptance.

Acceptance is based on verification that the products meet the requirements of paragraph 3.5. 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.
Testing to confirm corrective action is required before resubmittal.

4.4. Quality Conformance Inspection.

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



Tab Contact	"B"	"C"	"D"	"E"
6 A.P.	2,54	5,08	---	7,62
8 A.P.	2,54	5,08	7,62	7,62

Rec'd Drill Size	Drilled Hole Dia	Plating Thickness		Hole Diameter	
		Copper	Tin/Lead	After Plating	After Reflow
1,60 mm	± 0,025	0,025 0,075	0,004 0,010	1,39 1,54	1,36 1,54

Figure 1

Printed Circuit Test Board

Temperature measuring points.

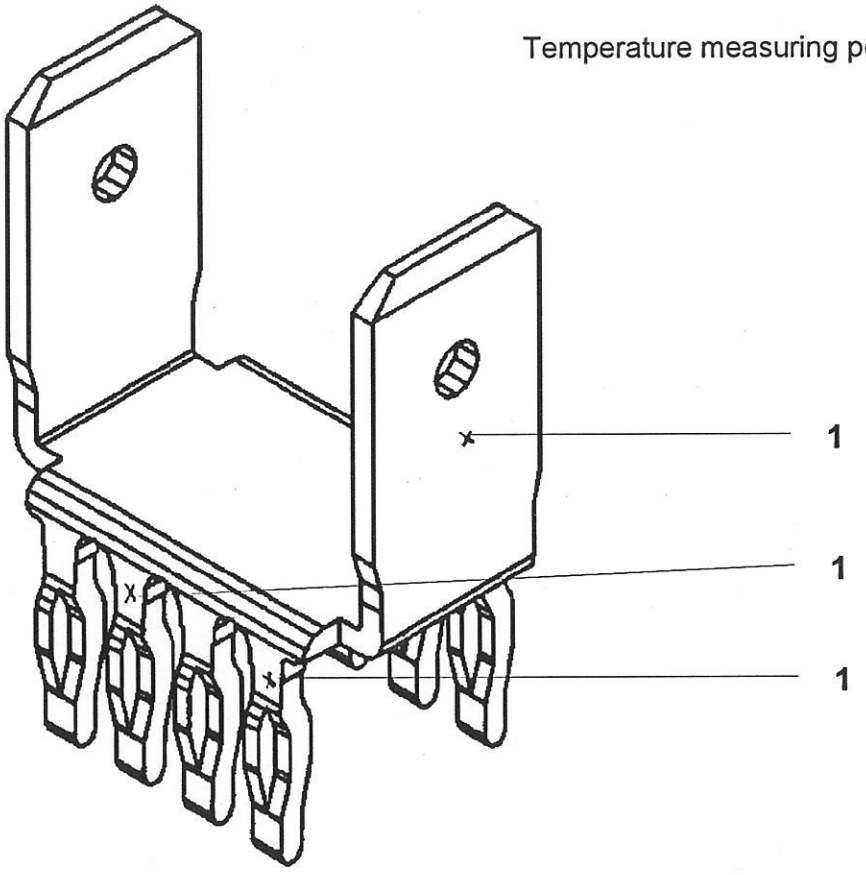


Figure 2