

Positive Lock MKIII 250 Series Housings

1. INTRODUCTION

1.1. Purpose

Testing was performed on the TE Connectivity (TE) Positive Lock MKIII 250 Series Housings to determine its performance.

1.2. Scope

This report covers the performance of the Positive Lock MKIII 250 Series Housings. Testing was performed at the Shanghai Electrical Components Test Laboratory on 05 Sep18. The test file number for this testing is TP-18-02597-RECORD.

1.3. Conclusion

All part numbers listed in Table 1 confirmed to the performance requirements.

1.4. Test Specimens

Table 1

Test Group	Qty	Part Number	Description
1	6	521955-1	2P Positive Lock MKIII 250 Series Housing
	6	521955-2	2P Positive Lock MKIII 250 Series Housing
	24	63854-1	Positive Lock 250 x .032 Receptacle Contact
2	6	521955-1	2P Positive Lock MKIII 250 Series Housing
	6	521955-2	2P Positive Lock MKIII 250 Series Housing
	24	63854-1	Positive Lock 250 x .032 Receptacle Contact

1.5. Test Sequence

Table 2

Test or Examination	Test Group (a)	
	1	2
Test Sequence (b)		
Dielectric Withstanding Voltage	1	
Contact Insertion Force		1
Contact Extraction Force		2

i **NOTE**

- (a) See Paragraph 1.4.
 (b) Numbers indicate sequence in which tests shall be performed.

1.6. Environmental Conditions

Unless otherwise stated, the following environmental conditions prevailed during testing:

Temperature: 15°C to 35°C
 Relative Humidity: 20% to 80%

2. SUMMARY OF TESTING

2.1. Dielectric Withstanding Voltage – Group 1

All specimens met the requirement for dielectric withstanding voltage with no dielectric breakdown or flashover occurring.

2.2. Contact Insertion Force – Group 2

All contact insertion force values were less than the maximum requirement of 17.79 N.

2.3. Contact Retention Force – Group 2

All contact retention force values were greater than the minimum requirement of 80.06 N.

3. TEST METHODS

3.1. Dielectric Withstanding Voltage

A test potential of 2.2 kV was applied between the output terminals and metal foil crapped around the specimen. This potential was applied for 1 minute. See Figure 1 for typical test setup.

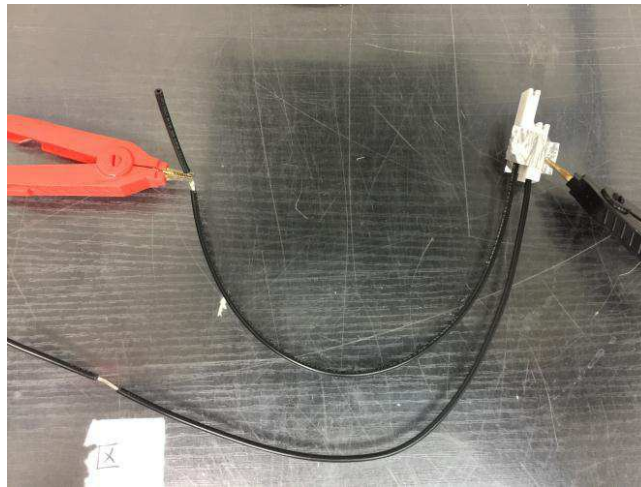


Figure 1

3.2. Contact Insertion Force

Contact insertion force was measured by applying an increasing force to each contact using a tensile/compression device with a rate of travel at 25.4 mm per minute until the contact was properly seated in the housing. See Figure 2 for a typical test setup.



Figure 2

3.3. Contact Retention Force

Contact retention force was measured by applying an axial pull-off load to the crimped wire on each contact using a tensile/compression device with a rate of travel at 25.4 mm per minute until the contact was removed from the housing. See Figure 3 for a typical test setup.



Figure 3