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

Mark II Positive Lock* K-Style Infinite Switch Housing

1. SCOPE

1.1. Contents

This specification covers the requirements for product performance, test methods, and quality assurance provisions for Mark II K-Style Infinite Switch Housings. Terminals include TE Connectivity (TE) part numbers 1969865-1, 1969864-1, and 1969870-1. These housings are intended for use with Mark II Positive Lock* terminals 2238155-X or 2238156-X.

1.2. Qualification

When tests are performed on the subject product line, procedures specified in Figure 1 shall be used. All inspections shall be performed using the applicable inspection plan and product drawing. All contacts must be crimped to comply with the Application Specification listed below using the appropriate TE Applicator or Hand Tool as specified in that document.

1.3. Qualification Test Results

Successful qualification testing on the subject product line has not been completed. The Qualification Test Report number will be issued upon successful qualification testing.

2. APPLICABLE DOCUMENTS

The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the latest edition of the document applies. 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.

2.1. TE Connectivity Specifications

501-TBD Qualification Test Report

2.2. Commercial Standards and Specifications

UL1977 Standard Component Connectors for Use in Data, Signal, Control and Power Applications

3. REQUIREMENTS

3.1. Design and Construction

Product shall be of the design, materials, construction and physical dimension specified on the applicable product drawing.

3.2. Materials

Materials used in the construction of this product shall be as specified on the applicable TE drawing.

3.3. Ratings

A. Voltage Rating: 600V

B. Temperature Rating (includes ambient temperature plus thermal increase due to current flow): 130°C

C. Flammability Rating: V0

3.4. Performance Requirements and Test Description

The product should meet the electrical, mechanical and environmental performance requirements specified in Figure 1. All tests shall be performed at room temperature unless otherwise specified.

3.5. Test Requirements and Procedure Summary

Test Description	Requirement	Procedure
Examination of Product	Meet requirements of product drawing and TE specification (114-106118). After testing, there shall be no corrosive influence on the performance and no physical damage.	EIA-364-18 Visual and dimensional (C of C) inspection per the product drawing.
Mechanical		
Contact Insertion Force	17.7 N (4 lbs) maximum per contact	EIA-364-05 Measure the force required to insert a contact into the housing.
Contact Retention Force	Unconditioned: 80 N (18 lbs) minimum Conditioned: 67 N (15 lbs) minimum	EIA-364-29, Method C Operation speed: 12.7mm/min. Apply an axial pull force to the crimped wire while the housing is secured.
Environmental		
Heat Age (Pre-Conditioning)	No visual signs of deformation, discoloration, or warpage.	Condition housing in an oven at 35°C for 24 hours. Parts must be tested within 2 hours of removal from oven.

Figure 1

NOTE
Shall meet visual requirements, show no physical damage, and meet requirements of additional tests as specified in the Product Qualification and Requalification Test Sequence shown in Figure 2.

3.6. Product Qualification and Requalification Test Sequence

TEST OR EXAMINATION	TEST GROUP (a)	
	1	2
	TEST SEQUENCE (b)	
Examination of Product	1, 4	1, 5
Contact Insertion Force	2	3
Contact Retention Force	3	4
Heat Age (Pre-Conditioning)		2

Figure 2

NOTE
(a) See paragraph 4.2.A.
(b) Numbers indicate the sequence in which tests are performed.

4. QUALITY ASSURANCE PROVISIONS

4.1. Test Conditions

Unless otherwise specified, all the tests shall be performed in any combination of the following test conditions.

Temperature	15 – 35°C
Relative Humidity	20 – 80%
Atmospheric Pressure	685 – 785 mmHg

4.2. Tests

A. Test Specimens

The test specimens to be employed for tests shall conform to the requirements specified in the applicable product drawings. The crimped contacts shall be prepared in accordance with the requirements of the Application Specification and are to be selected at random from current production.

B. Applicable Wires

The wires to be used for crimping the samples for performance testing shall be conforming to the requirements specified in the Application Specification.

4.3. Requalification Testing

If changes significantly affecting form, fit or function are made to the product or 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.

4.4. Acceptance

Acceptance is based on verification that the product meets the requirements of Figure 1. Failures attributed to equipment, test setup or operator deficiencies shall not disqualify the product. If product failure occurs, corrective action shall be taken and specimens resubmitted for qualification. Testing to confirm corrective action is required before resubmitted.

4.5. Quality Conformance Inspection

The applicable quality inspection plan shall 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.