

Subject 1977

February 2, 2018

SUMMARY OF TOPICS

The following changes in requirements to the Standard for Component Connectors for Use in Data, Signal, Control and Power Applications, UL 1977, are being proposed:

1. Editorial corrections to Table 7.1 to include 3A and 4A devices.

STP BALLOTS AND ALL COMMENTS DUE: MARCH 5, 2018

For your convenience in review, proposed additions to existing requirements are shown underlined and proposed deletions are shown ~~lined-out~~.

1. Editorial corrections to Table 7.1 to include 3A and 4A devices.

RATIONALE

Proposal submitted by: Chuck Kurten, UL LLC

On October 13, 2017 a proposal was made to include additional requirements for connectors rated 1,000 volts, designated types 3A and 4A. The proposal achieved consensus and revisions were published in the standard. Table 7.1 was overlooked to include the 3A and 4A devices. This proposal editorially updates Table 7.1 to include types 3A and 4A. Editorial corrections have also been included for 7.3 to alleviate maintenance upkeep of references to other UL standards and to remove the reference to the paragraph that we are in (7.3).

PROPOSAL

7.3 In this requirement, the term "established", when used in reference to material property values, is defined as those values that have been determined in accordance with the Standard for Polymeric Materials – Long Term Property Evaluations, UL 746B. The polymeric material shall be evaluated using the specimen thickness separating live parts or live parts and grounded metal parts. When the evaluation thickness of the specimen is between two closest thickness values that have been established, the Electrical RTI corresponding to the lower of these two thickness values shall be used. When the evaluation thickness of the specimen is less than the smallest thickness for which a value has been established, the Electrical RTI at the minimum thickness with an established value shall be used. If the material has no established RTI values at any thickness, the generic value for the family of resin to which the material belongs as defined in the section 7 for Relative Thermal Index – Based Upon Historical Record and ~~7.1 the Relative Thermal Indices Based Upon Past Field-Test Performance and Chemical Structure~~ table of UL 746B shall be used. When the Mold stress relief, Dielectric voltage-withstand, and the Temperature tests are successfully performed, as required by the desired Type designation and electrical rating(s), the maximum operating temperature of the device may be assigned up to the Electrical RTI value of the polymeric material as determined in this requirement(~~7.3 of UL 1977~~).

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Table 7.1
Minimum ratings for polymeric materials

Type	Flame rating ^a	Relative thermal index (RTI) Electrical
0	—	50
1A	HB	50
1B	HB	50
2	HB	50
3	HB	50
<u>3A</u>	<u>HB</u>	<u>50</u>
4	HB	50
<u>4A</u>	<u>HB</u>	<u>50</u>
5	HB	50
^a See Exception Nos. 1, 2 and 3 to 7.2.		

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