

Subject 2459

May 4, 2018

SUMMARY OF TOPICS

The following changes in requirements to the Standard for Insulated Multi-Pole Splicing Wire Connectors, UL 2459, are being proposed:

1. Minimum Spacings Table 4

2. Intermateability of Connectors

3. Use of Multi-Pole Splicing Wire Connectors as Disconnects in LED Applications

STP BALLOTS AND ALL COMMENTS DUE: June 4, 2018

UL's goal is to have no interest category comprise more than one-third of the STP membership balance. To improve the current balance for STP 2459, UL is looking for participants in the following interest categories: Commercial/Industrial User, General Interest, Supply Chain, Testing & Standards. Definitions for these interest categories are available on the Standards STP Internet site:

<http://ulstandards.ul.com/develop-standards/participation/interest-categories/>

If you are interested in applying for STP 2459 membership or are aware of potential candidates for this STP, please contact the STP Project Manager, Mitchell Gold at Mitchell.Gold@ul.com.

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

1. Minimum Spacings Table 4

RATIONALE

Proposal submitted by: The CANENA Technical Harmonization Committee for Connectors, THC 99

If the rated-voltage is 50 V or less or the pollution degree is 3 or more, 0.8 mm or more of minimum clearance is applied in item 8 in the demand of spacing in the Standard for Insulation Coordination Including Clearances and Creepage Distances for Electrical Equipment, UL 840. Moreover, if the rated voltage is 30 V or less or the pollution degree is 3 or more, 1.3 mm or more of the creeping distance is applied in item 9. Therefore, if the rated voltage is 30 V or less, the application of the spatial distance 0.8 mm and the creeping distance 1.3 mm is necessary in UL 2459.

Adding substantiation for changes above 30 V, and noting the changes for the higher voltage ratings reflect spacing requirements in other harmonized wiring device standards.

PROPOSAL

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Table 4A – Minimum spacings for the United States
(See Clause 4.4.1.)

Voltage involved, V	Through air, mm (in)	Over surface, mm (in)
0–125	1.6 (1/16)	3.2 (1/8)
126–600	3.2 (1/8)	4.8 (3/16)

Table 4B – Minimum spacings for Canada
(See Clause 4.4.1.)

Voltage involved, V	Through air, mm (in)	Over surface, mm (in)
0–250	1.2 (3/64)	1.2 (3/64)
251–600	3.2 (1/8)	3.2 (1/8)

4.4 Spacings

4.4.1 In the United States the minimum spacings on a connector shall be as specified in Table 4A. In Canada the minimum spacings on a connector shall be as specified in Table 4B. Minimum spacings on a connector shall be as specified in Table 4. Spacings shall be measured between the following:

- (a) uninsulated live parts of opposite polarity; and
- (b) an uninsulated live part and a dead metal part that is likely to be grounded or is accessible to contact when the device is installed as intended, including a metal surface on which the device is mounted in the intended manner.

Table 4 – Minimum spacings
(See Clause 4.4.1.)

Voltage involved, V	Through air and over surface, mm (in)
0–30	0.8 (1/32)
31–250	1.2 (3/64)
251–600	3.2 (1/8)

2. Intermateability of Connectors

RATIONALE

Proposal submitted by: Robert Osborne, UL LLC

UL 2459 does not define the dimensions of the mating parts of an insulated multi-pole mating spicing wire connector. Mating connectors are intended to be used with mating halves that are designed, tested, and under the control of the OEM. This proposal would add a definitive statement to the Standard to address this consideration, placing the proposed text after Clause 1.2 associates the statement with the text that describes how the connectors are used to interconnect devices that typically use mating pairs. Adding this statement provides the basis for a similar statement to be added to Certification Documents such as UL's GuideCard information. Note that this concept and terminology is already in use with Connectors for Use in PV Systems (Reference UL 6703).