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Group**

**C22.2 No. 355-18**  
**National Standard of Canada**



## Sealed twist-on connecting devices

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*Sealed twist-on connecting devices*



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## Sealed Twist-On Connecting Devices

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ANSI/UL 486G-2018



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The most recent designation of ANSI/UL 486G as an American National Standard (ANSI) occurred on January 26, 2018. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page (front and back) or the Preface.

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## PREFACE

This is the harmonized ANCE, CSA Group, and UL standard for Sealed Twist-On Connecting Devices. It is the first edition of NMX-J-745-ANCE, the first edition of CSA C22.2 No. 355, and the first edition of UL 486G.

This harmonized standard was prepared by the Association of Standardization and Certification, (ANCE), CSA Group and Underwriters Laboratories Inc. (UL). The efforts and support of the Technical Harmonization Committee, CANENA Technical Harmonization Committee 99 – Electrical Connectors and the Harmonization of Electrotechnical Standards of the Nations of the Americas (CANENA), are gratefully acknowledged. are gratefully appreciated.

This standard is considered suitable for use for conformity assessment within the stated scope of the standard.

This standard was reviewed by the CSA Integrated Committee on Electrical Connectors, under the jurisdiction of the CSA Technical Committee on Industrial Products and the CSA Strategic Steering Committee on Requirements for Electrical Safety, and has been formally approved by the CSA Technical Committee.

This standard has been developed in compliance with Standards Council of Canada requirements for National Standards of Canada. It has been published as a National Standard of Canada by CSA Group.

This standard has been approved by the American National Standards Institute (ANSI) as an American National Standard.

### Application of Standard

Where reference is made to a specific number of samples to be tested, the specified number is to be considered a minimum quantity.

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### Level of Harmonization

This standard is published as an identical standard for ANCE, CSA Group, and UL.

An identical standard is a standard that is exactly the same in technical content except for national differences resulting from conflicts in codes and governmental regulations. Presentation is word for word except for editorial changes.

### Interpretations

The interpretation by the standards development organization of an identical or equivalent standard is based on the literal text to determine compliance with the standard in accordance with the procedural rules of the standards development organization. If more than one interpretation of the literal text has been identified, a revision is to be proposed as soon as possible to each of the standards development organizations to more accurately reflect the intent.

## Fuseholders – Part 12: Class R

### 1 Scope

1.1 The wire connectors covered by these requirements are intended for use with copper conductor in accordance with installations covered by the National Electrical Code, NFPA 70; the Canadian Electrical Code, Part I, C22.1; and NOM 001 SEDE, Standard for Electrical Installations. The requirements in this standard cover twist-on style splicing sealed wire connectors intended for installations for applications noted below:

a) In accordance with wiring methods where the connector is installed in enclosures rated to the environment and located in dry locations, damp locations, wet locations, below grade, or above grade.

b) In lighting systems operating at 30 volts or less (rated 25 amperes and 30 volts, 12.4 volts peak, maximum), and lighting equipment connected to a Class 2 power source where the connector is located in dry locations, damp locations, wet locations, direct buried locations, below grade, or above grade where protected from direct exposure to sunlight.

**NOTE:** Sealed wire connectors used in these applications do not require the use of an enclosure.

c) In Canada, Class 2 circuits located in dry locations, damp locations, wet locations, direct buried locations, below grade, or above grade where protected from direct exposure to sunlight. In the United States and Mexico, Class 2 and Class 3 circuits located in dry locations, damp locations, wet locations, direct buried locations, below grade, or above grade where protected from direct exposure to sunlight.

**NOTE:** Sealed wire connectors used in these applications do not require the use of an enclosure.

1.2 Splicing sealed wire connectors covered by this standard are intended for use with single or multiple conductor underground feeder cable, golf course sprinkler cable, underground low energy cable, irrigation cable, or other cable with insulation acceptable for direct burial, below grade use, or wet locations.

1.3 Splicing sealed wire connectors covered by this standard are intended for use with copper conductor sizes 30 AWG (0.05 mm<sup>2</sup>) through 4 AWG (13.3 mm<sup>2</sup>) with currents not exceeding the ampacity of insulated conductors rated either 75 °C (167 °F) or 90 °C (194 °F) and intended for use at 600 V or less.

1.4 For products intended for use in Canada, general requirements are given in CAN/CSA-C22.2 No. 0.

### 2 Reference Publications

#### 2.1 Undated and dated references

2.1.1 For undated references to standards, such reference shall be considered to refer to the latest edition and all revisions to that edition up to the time when this standard was approved. For dated references to standards, such reference shall be considered to refer to the dated edition and all revisions published to that edition up to the time this standard was approved.

## 2.2 Normative references

Where reference is made to any Standards, such reference shall be considered to refer to the latest editions and revisions thereto available at the time of printing, unless otherwise specified.

### 2.2.1 ANCE Standards

NMX-J-548-ANCE,  
*Splicing Wire Connectors*

### 2.2.2 CSA Standards

C22.1-15  
*Canadian Electrical Code, Part I (CE Code)*

CAN/CSA-C22.2 No. 0-10 (R2015),  
*General-requirements – Canadian Electrical Code, Part II*

C22.2 No. 188-13,  
*Splicing Wire Connectors*

### 2.2.3 UL Standards

UL 486C  
*Splicing Wire Connectors*

### 2.2.4 ASTM Standards

ANSI/ASTM G21-15,  
*Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi*

### 2.2.5 NFPA\* Standard

ANSI/NFPA 70-2017,  
*National Electrical Code (NEC)*

\*National Fire Protection Association