



Bare and covered ferrules



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CONTENTS

PREFACE 5

1 Scope 7

2 Reference Publications 7

 2.1 Normative references 7

3 Units of Measurement 8

4 Definitions 8

5 Symbols and Abbreviations 8

6 Construction 9

 6.1 General 9

 6.2 Materials 9

 6.3 Flammability 9

 6.4 Thermal properties 9

7 Test Requirements 9

 7.1 General 9

 7.2 Tensile test 10

 7.3 Mold stress relief 10

 7.4 Dielectric voltage-withstand 10

8 Sampling Requirements 10

 8.1 General 10

 8.2 Tensile test 10

 8.3 Mold stress test 10

 8.4 Dielectric voltage-withstand 10

9 Test Methods 10

 9.1 General 10

 9.2 Tensile test 11

 9.3 Mold stress test 11

 9.4 Dielectric voltage withstand te 11

10 Marking, Labeling, and Packaging 11

 10.1 General 11

TABLES 11

FIGURES 20

Currently in preview, click buy full version

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PREFACE

This is the harmonized CSA Group and UL standard for Bare and Covered Ferrules. It is the second edition of CSA C22.2 No. 291 and the second edition of UL 486F. This edition of CSA C22.2 No. 291 supersedes the previous edition published in 2014.

The major differences between this edition and the previous edition include editorial updates to Tables 1-6, clarification to dielectric voltage withstand test, addition of wire gauge to marking requirements, expansion of the scope to include wire ranges covered by this standard and updates to the referenced publications.

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

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 Wiring 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.

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.

Note: Although the intended primary application of this standard is stated in its scope, it is important to note that it remains the responsibility of the users of the standard to judge its suitability for their particular purpose.

Level of Harmonization

This standard uses the IEC format but is not based on, nor is it considered equivalent to, an IEC standard.

This standard is published as an equivalent standard for CSA Group and UL.

An equivalent standard is a standard that is substantially the same in technical content, except as follows: Technical national differences are allowed for codes and governmental regulations as well as those recognized as being in accordance with NAFTA Article 905, for example, because of fundamental climatic, geographical, technological, or infrastructural factors, scientific justification, or the level of protection that the country considers appropriate. Presentation is word for word except for editorial changes.

Reasons for differences from IEC

At present there is no IEC standard for bare and covered ferrules. Therefore, this standard does not employ any IEC standard for base requirements.

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.

1 Scope

1.1 These requirements cover bare and covered ferrules intended for field wiring and factory wiring for use in accordance with the National Electrical Code, ANSI/NFPA-70 and Canadian Electrical Code, Part I, CSA C22.1.

1.2 These ferrules are intended to facilitate the connection of stranded wire on to devices, such as terminal blocks. Their purpose is to treat stripped wire and prevent turned back strands during installation. They are intended to be used to attach to one stranded copper conductor or two stranded copper conductors of the same size.

1.3 When intended for use with one conductor, these ferrules are suitable for use with 1/0 – 26 AWG, 50 – 0.14 mm², stranded copper conductors.

1.4 When intended for use with two conductors, these ferrules are suitable for use with (2) 6 – (2) 26 AWG, (2) 16 – (2) 0.25 mm², stranded copper conductors.

1.5 These ferrules are intended to be terminated in wire connection devices rated for solid conductors.

1.6 Ferrules are not intended for use in IDC (insulation displacement connection) terminal blocks.

1.7 This standard does not apply to wire connectors such as pin adapters covered in CSA C22.2 No. 65 or UL 486A-486B.

1.8 In Canada, general requirements applicable to this Standard are provided in CAN/CSA-C22.2 No. 0.

2 Reference Publications

2.1 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.

2.1.1 CSA Group Standards

C22.1-18
Canadian Electrical Code, Part I

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

CAN/CSA-C22.2 No. 0.17-00 (R2018)
Evaluation of Properties of Polymeric Materials