UL 4248-14

STANDARD FOR SAFETY

Fuseholders – Part 14: Supplemental Fuseholders

UL Standard for Safety for Fuseholders – Part 14: Supplemental Fuseholders, UL 4248-14

First Edition, Dated July 21, 2023

Summary of Topics

This is the First Edition of ANSI/UL 4248-14, the Standard for Fuseholders – Part 14: Supplemental Fuseholders dated July 21, 2023.

The new requirements are substantially in accordance with Proposal(s) on this subject dated November 19, 2021 and November 4, 2022.

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Fuseholders – Part 14: Supplemental Fuseholders

July 21, 2023

ANSI/UL 4248-14-2023

Commitment for Amendments

This standard is issued jointly by the Association of Standardization and Certification (ANCE), the Canadian Standards Association (operating as “CSA Group”), and ULSE Inc. (ULSE). Comments or proposals for revisions on any part of the standard may be submitted to ANCE, CSA Group, or ULSE at anytime. Revisions to this standard will be made only after processing according to the standards development procedures of ANCE, CSA Group, and ULSE. CSA Group and ULSE will issue revisions to this standard by means of a new edition or revised or additional pages bearing their date of issue. ANCE will incorporate the same revisions into a new edition of the standard bearing the same date of issue as the CSA Group and ULSE pages.

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This Standard is subject to review within five years from the date of publication, and suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include "Proposal for change" in the subject line: Standard designation (number); relevant clause, table, and/or figure number; wording of the proposed change; and rationale for the change.

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This ANSI/UL Standard for Safety consists of the First Edition.

The most recent designation of ANSI/UL 4248-14 as an American National Standard (ANSI) occurred on July 21, 2023. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page (front and back), or the Preface.

Comments or proposals for revisions on any part of the Standard may be submitted to ULSE at any time. Proposals should be submitted via a Proposal Request in the Collaborative Standards Development System (CSDS) at https://csds.ul.com.

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Preface

This is the harmonized ANCE, CSA Group, and ULSE standard for Fuseholders – Part 14: Supplemental Fuseholders. It is the first edition of NMX-J-4248-14-ANCE, CSA C22.2 No. 4248.14 and UL 4248-14.

This harmonized standard was prepared by the Association of Standardization and Certification, (ANCE), CSA Group and ULSE. The efforts and support of the Technical Harmonization Subcommittee 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.

The present Mexican standard was developed by the CT 32 “Fusibles” from the Comite de Normalizacion de la Asociacion de Normalizacion y Certificacion, A.C., CONANCE, with the collaboration of the fuse manufacturers and users.

This standard was reviewed by the CSA Subcommittee on Fuses and Fuseholders, 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 the 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.

NMX-J-4248-14-ANCE is to be used in conjunction with the third edition of NMX-J-009/4248/1-ANCE. The requirements for supplemental fuseholders are contained in this Part 14 Standard and NMX-J-009/4248/1-ANCE. Requirements of this Part 14 Standard, where stated, amend the requirements of NMX-J-009/4248/1-ANCE. Where a particular subclause of NMX-J-009/4248/1-ANCE is not mentioned in NMX-J-4248-14-ANCE, the NMX-J-009/4248/1-ANCE subclause applies.

CSA C22.2 No. 4248.14 is to be used in conjunction with the third edition of CSA C22.2 No. 4248.1. The requirements for supplemental fuseholders are contained in this Part 2 Standard and CSA C22.2 No. 4248.1. Requirements of this Part 14 Standard, where stated, amend the requirements of CSA C22.2 No. 4248.1. Where a particular subclause of CSA C22.2 No. 4248.1 is not mentioned in CSA C22.2 No. 4248.14, the CSA C22.2 No. 4248.1 subclause applies.

UL Standard 4248-14 is to be used in conjunction with the third edition of UL 4248-1. The requirements for supplemental fuseholders are contained in this Part 14 Standard and UL 4248-1. Requirements of this Part 14 Standard, where stated, amend the requirements of UL 4248-1. Where a particular subclause of UL 4248-1 is not mentioned in UL 4248-14, the UL 4248-1 subclause applies.

Level of harmonization

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

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 14: Supplemental Fuseholders

1 Scope

1.1 This Part is intended to be read together with the Standard for Fuseholders – Part 1: General Requirements, hereafter referred to as Part 1. The titles of the Clauses in this Part correspond to the similarly titled Clauses in Part 1. The requirements of Part 1 apply unless modified by this Part. For the Part 1 requirements, refer to the Standard for Fuseholders – Part 1: General Requirements, NMX-J-009/4248/1-ANCE / CSA C22.2 No. 4248.1 / UL 4248-1.

1.2 These requirements apply to fuseholders intended for use with Supplemental Fuses as described in NMX-J-009/248/14-ANCE, CSA C22.2 No. 248.14, UL 248-14, Low-Voltage Fuses – Part 14: Supplemental Fuses.

2 Referenced Publications

2.1 Any undated reference to a code or standard appearing in the requirements of this Standard shall be interpreted as referring to the latest edition of that code or standard.

2.2 When a reference is made to a code or standard, the product shall comply with the code or standard of the country in which the product is intended to be used.

2.3 Throughout this Standard, the CSA standard references apply to products intended for use in Canada, the ANCE NMX standard references apply to products intended for use in Mexico, and the UL standard references apply to products intended for use in the United States. Combined references are separated by a slash (“ / ”) to denote the difference between the applicable requirements specified for use in Canada, Mexico, and the United States.

2.4 The following publications are referenced in this Standard:

United States	Canada	Mexico
NFPA 70, National Electrical Code	CSA C22.1, Canadian Electrical Code, Part I CSA C22.2 No. 0, Canadian Electrical Code, Part II, General Requirements	NOM-001, Mexican Electrical Code
UL 746C, Standard for Polymeric Materials – Used in Electrical Equipment Evaluations	CSA C22.2 No. 0.17, Evaluation of Properties of Polymeric Materials	
UL 248-14, Standard for Low-Voltage Fuses – Part 14: Supplemental Fuses *(Trinational)*	CSA C22.2 No. 248.14, Low-Voltage Fuses – Part 14: Supplemental Fuses *(Trinational)*	NMX-J-009/248/14-2000-ANCE, Low-Voltage Fuses – Part 14: Supplemental Fuses (Trinational)
UL 4248-1, Standard for Fuseholders – Part 1: General Requirements *(Trinational)*	CSA C22.2 No. 4248.1, Fuseholders - Part 1: General Requirements *(Trinational)*	NMX-J-009/4248/1-ANCE, Fuseholders – Part 1: General Requirements (Trinational)

3 Units of Measurement

3.1 The values given in SI (metric) shall be normative. Any other values given shall be for information purposes only.

4 General

4.1 In Canada, general requirements applicable to this Standard are given in CSA C22.2 No. 0, General Requirements – Canadian Electrical Code, Part II.

5 Classification

5.1 Supplemental fuseholders have a short-circuit withstand rating of 10,000 A unless otherwise specified. Supplemental fuseholders are rated 60 A or less, 1000 V or less.

6 Ratings

6.1 Supplemental fuseholders shall be rated 1000 V or less.

6.2 Supplemental fuseholders shall be rated 60 A or less.

6.3 Supplemental fuseholders not intended for microfuses shall have a minimum short-circuit withstand rating of 10,000 A. Supplemental fuseholders intended for microfuses shall have a minimum short-circuit withstand rating of 50 A.

7 Markings

7.1 For supplemental fuseholders intended for fuses which have a principal dimension exceeding 20 mm (0.8 in), excluding the leads or terminals, the requirement for markings in Part 1 applies.

7.2 For supplemental fuseholders intended for fuses which have no principal dimension exceeding 20 mm (0.8 in), excluding the leads or terminals, the markings shall be as follows:

a) The manufacturer's name, trademark, or both;

b) Catalogue number or equivalent;

c) Wire terminals if intended for field wiring; and

d) Other required markings from the Part 1 may be on the fuseholder or in associated literature

8 Construction

8.1 Wiring terminals

8.1.1 For fuseholders using machine screws with washers or washer head screws as wiring terminals, the screws shall be sized as specified in Table 8.1.

Table 8.1
Machine Screw Size for Wiring Terminals

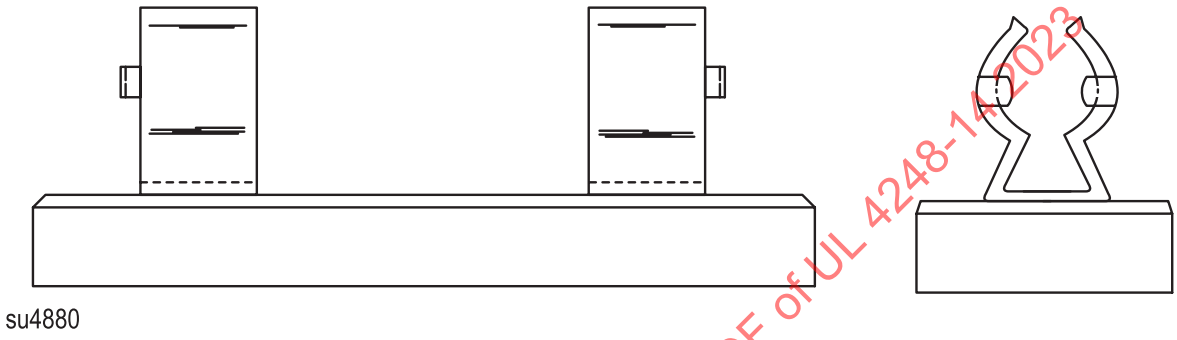
Fuseholder rating, A	Machine screw size, No.
≤ 30	≥ 6
31 – 60	≥ 8

8.2 Contacts of cartridge fuseholders

8.2.1 Fuseholders for ferrule-type cartridge fuses shall be provided with end stops, or another means, to ensure proper location of a ferrule-type cartridge fuse in the contacts. A typical configuration is shown in Figure 8.1.

Figure 8.1

Typical End Stop Configuration



8.2.2 The dimensions of a supplemental fuseholder are not specified. Fuseholders for supplemental fuses shall be designed to accommodate the fuses for which they are intended for.

8.3 Creepage and clearance

8.3.1 Spacings for fuseholders intended for use with supplemental fuses shall be in accordance with the creepage and clearance requirements in the Part 1.

9 Tests

9.1 General

9.1.1 Each fuseholder shall be subjected to the tests as specified in the Part 1, except as modified in 9.2.

9.2 Verification of temperature rise

9.2.1 With dummy fuses in place and carrying rated current continuously, the temperature on a material or component or electrical insulation shall not exceed the values in Table 9.3.

9.2.2 Fuseholders for ferrule-type cartridge fuses sized in accordance with Table 9.1 shall use unplated copper dummy fuses having dimensions as specified in Table 9.1.