CSA Group

C22.2 No. 174-18
National Standard of Canada

Cables and cable glands for use in hazardous locations

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Cables and cable glands for use in hazardous locations

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Preface

This is the third edition of CSA C22.2 No. 174, *Cables and cable glands for use in hazardous locations*, one of a series of Standards issued by CSA Group under Part II of the *Canadian Electrical Code*. It supersedes the previous editions published in 1984 and 1981.

The major changes in this edition are as follows:

a) removal of requirements that are addressed in other standards;
b) addition of supplementary jacket testing for unarmoured cables to ensure robustness during installation; and
c) reorganization for clarity and consistency with current practice.

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

This Standard was prepared by the Cables and Cable Glands for Hazardous Locations Task Force, under the jurisdiction of the Integrated Committee on Hazardous Location Products, the Technical Committee on Industrial Products, and the Strategic Steering Committee on Requirements for Electrical Safety. This Standard has been formally approved by the 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.

Interpretations: The Strategic Steering Committee on Requirements for Electrical Safety has provided the following direction for the interpretation of standards under its jurisdiction: "The literal text shall be used in judging compliance of products with the safety requirements of this Standard. When the literal text cannot be applied to the product, such as for new materials or construction, and when a relevant CSA committee interpretation has not already been published, CSA Group's procedures for interpretation shall be followed to determine the intended safety principle."

Notes:

1) *Use of the singular does not exclude the plural (and vice versa) when the sense allows.*
2) *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.*
3) *This Standard was developed by consensus, which is defined by* CSA Policy governing standardization — Code of good practice for standardization *as "substantial agreement. Consensus implies much more than a simple majority, but not necessarily unanimity". It is consistent with this definition that a member may be included in the Technical Committee list and yet not be in full agreement with all clauses of this Standard.*
4) *To submit a request for interpretation of this Standard, please send the following information to* ***inquiries@csagroup.org*** *and include "Request for interpretation" in the subject line:*
   a) *define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*
   b) *provide an explanation of circumstances surrounding the actual field condition; and*
   c) *where possible, phrase the request in such a way that a specific "yes" or "no" answer will address the issue.*

   Committee interpretations are processed in accordance with the CSA Directives and guidelines governing standardization *and are available on the* Current Standards Activities *page at* ***standardsactivities.csa.ca****.*
5) *This Standard is subject to review within five years from the date of publication. 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:*
   a) *Standard designation (number);*
   b) *relevant clause, table, and/or figure number;*

c) *wording of the proposed change; and*
d) *rationale for the change.*

C22.2 No. 174-18
Cables and cable glands for use in hazardous locations

1 Scope

1.1 General

This Standard applies to

a) cables for use in hazardous locations in accordance with CSA C22.1, *Canadian Electrical Code, Part I* (*CE Code, Part I*); and
b) cable glands for use in Class I, II, and III hazardous locations in accordance with the *CE Code, Part I*.

The requirements in this Standard are in addition to the basic electrical requirements applicable to such cables and cable glands for use in locations other than hazardous locations.

Note: *Cable glands may be approved with an Ex method of protection according to the CAN/CSA-C22.2 No. 60079 series of standards without demonstrating compliance to this Standard.*

1.2 Terminology

In this Standard, “shall” is used to express a requirement, i.e., a provision that the user is obliged to satisfy in order to comply with the Standard; “should” is used to express a recommendation or that which is advised but not required; and “may” is used to express an option or that which is permissible within the limits of the Standard.

Notes accompanying clauses do not include requirements or alternative requirements; the purpose of a note accompanying a clause is to separate from the text explanatory or informative material.

Notes to tables and figures are considered part of the table or figure and may be written as requirements.

Annexes are designated normative (mandatory) or informative (non-mandatory) to define their application.

1.3 Units of measure

The values given in SI units are the units of record for the purposes of this Standard. The values given in parentheses are for information and comparison only.

2 Reference publications

This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below, including all amendments published thereto.

CSA Group

C22.1-15
Canadian Electrical Code, Part I

