

Temperature-indicating and -regulating equipment



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Preface

This is the tenth edition of CSA C22.2 No. 24, *Temperature-indicating and -regulating equipment*. It is part of a series of Standards issued by CSA Group under Part II of the *Canadian Electrical Code*. It supersedes the previous editions, published in 2015, 1993, 1987, 1981, 1972, 1965, 1963, 1955, and 1935.

The following revisions have been made in this edition (clause numbers refer to this edition of the Standard unless otherwise noted):

- definitions added to Clause [3](#);
- Clause [5.1.9](#) revised to include specified parameters;
- Clauses [5.2.1.6](#) clarification of acceptance criteria;
- Clause [5.6.2.4](#) added;
- new Clause [5.30.3](#) included to improve safety measures;
- Clause [5.32](#) added to include battery powered controls;
- Clause [5.33](#) added for safety of electronic disconnection controls;
- new Clause [6.14](#) added for clarity;
- new Clause [6.15](#) included new battery requirements;
- Clause [7.8](#) clarified;
- Clause [7.9.2.3](#) revised testing requirements;
- Clause [7.10.11](#) added testing requirement for electronic disconnection;
- Clause [7.27.2](#) removed definition of cheesecloth to avoid repetition;
- Clause [7.27.3.2](#) clarified;
- new clauses added to testing in Clause [7](#):
 - Clause [7.30](#) Battery short-circuit test;
 - Clause [7.31](#) Electronic disconnection test; and
 - Clause [7.32](#) Running overload test;
- Clause [A.4.3](#) references updated;
- Table [6](#) revised (Items 2, 7, and note **);
- Table [10](#) updated (Items 3, 6, and note ‡);
- Annex [C](#) (normative) added; and
- Annex [D](#) (informative) added.

The use of extracts from ISO 23552-1:2007, *Safety and control devices for gas and/or oil burners and gas and/or oil appliances — Particular requirements — Part 1: Fuel/air ratio controls, electronic type*, was copied by CSA Group with the permission of the Standards Council of Canada (SCC) on behalf of ISO. The standard can be purchased from the national ISO member in your country or the ISO Store. Copyright remains with ISO.

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

This Standard was prepared by the Working Group on C22.2 No. 24 and the Subcommittee on Automatic Controls for Household Use, under the jurisdiction of the Technical Committee on Consumer and Commercial Products and the Strategic Steering Committee on Requirements for Electrical Safety, and has been formally approved by the Technical Committee.

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

CSA C22.2 No. 24:21

Temperature-indicating and -regulating equipment

1 Scope

1.1

This Standard applies to temperature-indicating and -regulating equipment* for voltages up to and including 600 V between conductors and intended for general household and industrial use in nonhazardous locations, in accordance with the Rules of CSA C22.1, *Canadian Electrical Code, Part I (CEC, Part I)*.

* For convenience, the shorter term “equipment” is sometimes used in this Standard.

1.2

This Standard applies to electrical control equipment for air conditioning, heating, lighting, cooling, refrigeration, cooking appliances, safety controls, and other similar appliance controls.

1.3

This Standard does not apply to dimmers and extra-low-voltage equipment other than safety controls and room thermostats with heat anticipators.

1.4

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.

2 Reference publications

This Standard refers to the following publications, and where such reference is made, it shall be to the edition listed below:

CSA Group

B149.3:20

Code for the field approval of fuel-burning appliances and equipment