ANSI Z21.90-2015 • CSA 6.24-2015

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Gas convenience outlets and optional enclosures

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Gas convenience outlets and optional enclosures

American National Standards Institute, Inc.

International Gas Advisory Council

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Preface

This is the second edition of ANSI Z21.90 • CSA 6.24, Standard for Gas Convenience Outlets and Optional Enclosures. It supersedes the previous edition published in 2001.

This Standard was prepared by the Z21/CSA Joint Technical Subcommittee on Standards for Manually Operated Gas Valves, under the jurisdiction of the Technical Committee on Performance and Installation of Gas Burning Appliances and Related Accessories and the Strategic Steering Committee on Standards for Gas Appliances and Related Accessories, and had been formally approved by the Z21/83 and CSA Technical Committees, American National Standards Institute, and the Interprovincial Gas Advisory Council.

Interpretations: The Strategic Steering Committee on Standards for Standards for Gas Appliances and Related Accessories 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) *This Standard contains SI (Metric) corresponding to the yard/pound quantities, the purpose being to allow the standard to be used in SI (Metric) units. (Standard for use of the International System of Units (SI): The Modern Metric System, IEEE/ASTM SI I0 or ISO 80000-1:2009 Quantities and units– Part 1: General are used as a guide in making metric conversion from yard/pound quantities.) If a value for a measurement and a corresponding value in other units are stated, the first stated value is to be regarded as the requirement. The given corresponding value may be approximate. If a value for a measurement and a corresponding value in other units are both specified as a quoted marking requirement, the first stated unit, or both shall be provided.*

3) *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.*

4) *This publication 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 publication.*

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d) *rationale for the change.*

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b) *provide an explanation of circumstances surrounding the actual field condition; and*
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History of the development of the standard for Gas convenience outlets and optional enclosures

Note: *This History is informative and is not part of the standard.*

With the onset of the Free Trade Agreement between the United States and Canada on January 2, 1988, significant attention was given to the harmonization of the United States and Canadian safety standards addressing gas-fired equipment for residential, commercial, and industrial applications. It was believed that the elimination of the differences between the standards would remove potential trade barriers and provide an atmosphere in which North American manufacturers could market more freely in the United States and Canada. The harmonization of these standards was also seen as a step toward harmonization with international standards. Joint subcommittees were established to facilitate the standards harmonization process between the United States and Canada.

The draft harmonized standard for Gas Convenience Outlets and Optional Enclosures, Z21.90 • CSA 6.24 was first adopted for public review and comment by the Z21/(Interim CSA) Joint Manual Valve Subcommittee at its Meeting of March 10-11, 1998 and issued for public review on July 27, 1998.

Following reconsideration and modification of the proposed draft standard, in light of comments received, by the joint subcommittee at its March 16, 1999 meeting, substantive revisions were re-issued for public review on April 5, 2000; comments and criticisms were considered by the subcommittee at its meeting of June 15, 2000. The subcommittee recommended the proposed draft standard to the Accredited Standards Committee Z21/83 and the (Interim CSA) Standards Steering Committee on June 16, 2000.

The proposed draft of the harmonized standard for gas convenience outlets and optional enclosures, as modified by the joint subcommittee, was approved by the Z21/83 Committee by letter ballot on January 22, 2001, and by the CSA Technical Committee on Gas Appliances and Related Accessories by letter ballot dated December 19, 2000.

The first edition of the American National Standard/CSA Standard for Gas Convenience Outlets and Optional Enclosures was approved by the Canadian Interprovincial Gas Advisory Council on June 25, 2001, and by the American National Standards Institute, Inc., on August 31, 2001.

The following identifies the designation and year of the harmonized standard:

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Gas convenience outlets and optional enclosures

1 Scope

1.1
This Standard applies to gas convenience outlets (see Clause 3, Definitions), hereinafter referred to as gas outlets and optional enclosures, not to exceed 1-1/2 in (38.1 mm) and pressures not to exceed 5 psi (34.5 kPa), capable of operation at temperatures between 32°F and 200°F (0°C and 93.3°C) if intended for indoor use only, or between -20°F and 200°F (-28.8°C and 93.3°C) if intended for indoor/outdoor use. Indoor/outdoor use is also to be capable of operation at -40°F (-40°C) when so specified by the manufacturer.

1.2
This Standard set forth the minimum capabilities, characteristics, and properties that a gas outlet and optional enclosure must possess, at the time of manufacture, in order to be considered suitable for use in a gas piping system. Details of design and manufacture not stated in these requirements, including such design and production tests that will produce gas outlets that meet these requirements, remain the responsibility of the manufacturer.

1.3
If a value for measurement as given in this Standard is followed by an equivalent value in other units, the first stated value is to be regarded as the specification.

1.4
All references to pressure throughout this Standard are to be considered gauge pressure, unless otherwise specified.

1.5
Clause 2, Reference Publications contains a list of standards specifically referenced in this Standard, and sources from which these reference standards may be obtained.

1.6
This Standard contains SI (Metric) units corresponding to the yard/pound quantities, the purpose being to allow the standard to be used in SI (Metric) units. (IEEE/ASTM SI 10, *American National Standard for Metric Practice*, or ISO 80000-1:2009, *Quantities and units – Part 1: General*, is used as a guide in making metric conversion from yard/pound quantities.) If a value for a measurement and a corresponding value in other units are stated, the first stated value is to be regarded as the requirement. The given corresponding value may be approximate. If a value for a measurement and a corresponding value in other units are both specified as a quoted marking requirement, the first stated unit, or both, are to be provided.

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1.7

In this Standard, "shall" is used to express a requirement, i.e., a provision that the user shall 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, including all amendments published thereto.

(CSA) Canadian Standards Association

CSA B149.1-10
Propane and Natural Gas Installation Code

(AGA) American Gas Association

NFPA 54/ANSI Z223.1-2012
National Fuel Gas Code

(ASME) American Society of Mechanical Engineers

ANSI/ASME B1.20.1-1983 (R2006)
Pipe threads, General Purpose (Inch)

(NFPA) National Fire Protection Association

NFPA 54/ANSI Z223.1-2012
National Fuel Gas Code

(SAE) Society of Automotive Engineers

ANSI/SAE J512-1997
Automotive Tube Fittings

3 Definitions

The following definitions shall apply in this Standard.

Appliance side connection — the male half of the connection device that is inserted into the gas convenience outlet allowing the check valve to open.

Concealed space — that space in a finished building that would require removal of permanent construction to gain access to the piping.