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(reaffirmed 2019) •
CSA 6.9-2014
(reaffirmed 2019)

Quick disconnect devices for use with gas fuel appliances



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Quick disconnect devices for use with gas fuel appliances



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Interprovincial Gas Advisory Council



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Preface

This is the fourth edition of ANSI Z21.41 • CSA 6.9, Standard for *Quick disconnect devices for use with gas fuel appliances*. It supersedes the previous editions published in 2011, 2003, 1998.

This Standard was prepared by the Z21/CSA Joint Technical Advisory Group on Standards for Manually Operated Gas Valves, under the jurisdiction of the CSA Technical Committee on Gas Appliances and Related Accessories and Z21/83 Technical Committees on the 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 Technical Committee(s), American National Standards Institute, and the Interprovincial Gas Advisory Council.

Interpretations: The Strategic Steering Committee on 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'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.*
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- 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.*
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 - c) *Where possible, phrase the request in such a way that a specific "yes" or "no" answer will address the issue.*
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History of the development of ANSI Z21.41-2014 • CSA 6.9-2014

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.

At its meeting of May 12-13, 1993 the Z21/CGA Joint Subcommittee on Standards for Manually-Operated Valves and Quick-Disconnect Devices passed a motion requesting staff to prepare a draft binational standard for Quick Disconnect Devices For Use With Gas Fuel Appliances for public review and comment.

The first draft harmonized standard was based on the current coverage from American National Standard for Quick-Disconnect Devices For Use With Gas Fuel, ANSI Z21.41-1989, Addenda Z21.41a-1990, and Z21.41b-1992, and the National Standard of Canada for Quick Disconnect Devices For Use With Gas Fuel, CAN1-6.9-M79. The first draft was subsequently issued for public review during September and October of 1995.

Following reconsideration and modification of the proposed draft standard, in light of comments received, the joint manual valves subcommittee, at its March 12-13, 1996 meeting, recommended the proposed draft to the Z21 Committee and the CGA Standards Steering Committee for approval.

The proposed draft of the harmonized Standard for Quick-Disconnect Devices For Use With Gas Fuel Appliances, as modified by the joint subcommittee at its meeting of March 12-13, 1996, was approved by the Z21/83 Committee by letter ballot dated July 30, 1997 and by the CGA Standards Steering Committee on September 16, 1996.

The first edition of the harmonized Z21/CSA Standard for Quick-Disconnect Devices For Use With Gas Fuel Appliances, was approved by the Canadian Interprovincial Gas Advisory Council (IGAC) in December 1996 and by the American National Standards Institute Inc. (ANSI) on January 6, 1998.

Following the procedures outlined above, further revisions to this standard, Z21.41 CSA 6.9, were made in line with industry developments. The second edition of the American National Standard/CSA Standard for Quick Disconnect Devices For Use With Gas Fuel Appliances was approved by the IGAC on November 15, 2003, and by ANSI, on December 23, 2003.

The third edition of the standard was approved by the IGAC on July 8, 2011 and by ANSI on February 25, 2011.

This the fourth edition of the standard was approved by the IGAC on October 14, 2013 and by ANSI on January 13, 2014.

The previous editions of the quick disconnect devices standard, and addenda thereto, approved by the Interprovincial Gas Advisory Council and American National Standards Institute, Inc. are as follows:

ANSI Z21.41-1998 • CSA 6.9-M98
ANSI Z21.41a-2001 • CSA 6.9a-2001
ANSI Z21.41b-2002 • CSA 6.9b-2002

ANSI Z21.41-2003 • CSA 6.9-2003
ANSI Z21.41a-2005 • CSA 6.9a-2005
ANSI Z21.41b-2010 • CSA 6.9b-2010

ANSI Z21.41-2011 • CSA 6.9-2011

The following identifies the designation and year of this Standard:

ANSI Z21.41-2014 • CSA 6.9-2014

ANSI Z21.41-2014 • CSA 6.9-2014

Quick disconnect devices for use with gas fuel appliances

1 Scope

Δ 1.1

This Standard applies to newly-produced, hand-operated quick-disconnect devices, hereinafter also referred to as devices, constructed entirely of new, unused parts and materials which provide a means for connecting and disconnecting appliances or appliance connectors to gas supplies and which are for indoor and outdoor applications. These devices shall be equipped with automatic means to shut off the gas when the devices are disconnected. The mating parts shall be held together securely either by a positive locking means or by means requiring a straight pull to disconnect. These devices shall be capable of operation at ambient temperatures between 32°F to 200°F (0°C to 93.3°C) if intended for indoor use only, or temperatures between -20°F to 200°F (-28.8°C to 93.3°C) if intended for indoor/outdoor use. These devices shall also be capable of operation at temperatures of -40°F (-40°C) when so specified by the manufacturer.

Δ 1.2

This Standard applies to quick disconnect devices for use with natural, manufactured and mixed gases, propane gas and LP gas-air mixtures, having maximum gas pressure ratings of up to and including 60 psi (414 kPa). A manufacturer must specify what pressure will be marked on the product and the applicable pressures in the performance tests shall be adjusted to meet the testing requirements.

1.3

All references to psi (kPa) throughout this standard are to be considered as gauge pressure unless otherwise specified.

1.4

Annex A contains provisions that are unique to Canada.

1.5

Clause 2, 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) 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 10 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 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.