



CSA/ANSI Z21.104:19 • CSA 9.2:19  
National Standard of Canada  
American National Standard



# Manual and automatic gas selector devices for use with gas-fired appliances



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*National Standard of Canada  
American National Standard*

*CSA/ANSI Z21.104:19 • CSA 9.2:19  
Manual and automatic gas selector  
devices for use with gas-fired  
appliances*



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**IGAC**

*Interprovincial  
Gas Advisory Council*



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# Contents

Interprovincial Gas Advisory Council	2
Canadian Technical Committee on Gas Appliances and Related Accessories	4
Z21/83 Technical Committee on Performance and Installation of Gas Burning Appliances and Related Accessories	7
Joint Technical Subcommittee on Manually Operated Gas Valves	10
Preface	13
<b>1 Scope</b>	<b>15</b>
<b>2 Reference publications</b>	<b>16</b>
<b>3 Definitions</b>	<b>17</b>
<b>4 Construction</b>	<b>18</b>
4.1 General	18
4.2 Selector device operation	19
4.3 Selector device stops	19
4.4 Materials	19
4.5 Assembly	20
4.6 Marking	20
<b>5 Performance</b>	<b>21</b>
5.1 General	21
5.2 Leakage	22
5.2.1 Internal leakage	22
5.2.2 External leakage	22
5.3 Continued operation	23
5.3.1 Manual devices	23
5.3.2 Automatic devices	25
5.4 Low temperature operation	25
5.5 Adequacy of setting means for manual devices	26
5.6 Strength	27
5.6.1 Bending moment	27
5.6.2 Turning effort	28
5.7 Marking material adhesion and legibility	29
<b>6 Manufacturing and production tests</b>	<b>30</b>
Annex A (informative) — Table of conversion factors	32

# Preface

This is the first edition of CSA/ANSI Z21.104 • CSA 9.2, *Manual and automatic gas selector devices for use with gas-fired appliances*.

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

This Standard was prepared by the Joint Technical Subcommittee on Manually Operated Gas Valves under the jurisdiction of the Z21/83 Technical Committee on Performance and Installation of Gas Burning Appliances and Related Accessories and the Strategic Steering Committee on Fuels and Appliances. It has been formally approved by the Z21/83 Technical Committee, the Canadian Technical Committee on Gas Appliances and Related Accessories, and the Interprovincial Gas Advisory Council.

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. This Standard has been approved by the American National Standards Institute (ANSI) as an American National Standard.

**Interpretations:** The Strategic Steering Committee on Fuels and Appliances 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 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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  - 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](http://standardsactivities.csa.ca).*
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  - a) *Standard designation (number);*
  - b) *relevant clause, table, and/or figure number;*
  - c) *wording of the proposed change; and*
  - d) *rationale for the change.*

## History of the development of the Standard for manual and automatic gas selector devices for use with gas-fired appliances

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

The draft harmonized standard for *Manual and automatic gas selector devices for use with gas-fired appliances*, Z21.104 • CSA 9.2 was first adopted for public review and comment by the Z21/(Interim CSA) Joint Manual Valve Subcommittee at its Meeting of April 13, 2016 and issued for industry review during May 2016.

Following reconsideration and modification of the proposed draft standard, in light of comments received, by the joint subcommittee at its August 17, 2017 meeting, the subcommittee recommended the proposed draft standard to the Z21/83 Technical Committee and the CSA Technical Committee.

The proposed draft of the harmonized standard for Manual and Automatic Gas Selector Devices for Use with Gas-Fired Appliances, Z21.104 • CSA 9.2, as modified by the joint subcommittee, was approved by the Z21/83 Technical Committee by letter ballot on July 10, 2019, and by the CSA Technical Committee on Gas Appliances and Related Accessories by letter ballot dated July 10, 2019.

This, the first edition of the Standard for Manual and Automatic Gas Selector Devices for Use with Gas-Fired Appliances, CSA/ANSI Z21.104 • CSA 9.2 was approved by the Canadian Interprovincial Gas Advisory Council on September 19, 2019, and by the American National Standards Institute, Inc., on October 11, 2019.

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

CSA/ANSI Z21.104:19 • CSA 9.2:19

# CSA/ANSI Z21.104:19 • CSA 9.2:19

## **Manual and automatic gas selector devices for use with gas-fired appliances**

### **1 Scope**

#### **1.1**

This Standard applies to newly produced gas selector devices (see Clause 3), herein after referred to as a “device”, constructed entirely of new, unused parts and materials.

#### **1.2**

The device may include functions such as selection of type of gas to operate the appliance and main burner primary air adjustment. The device may also contain multiple passageways that can be selected to allow the gas to pass out through the correct outlet(s) and that may contain the orifice(s). The selector does not provide safety, temperature control, shut-off or pressure regulation. (See Clause 3.)

The device may include features such as:

- a) main burner primary air adjustment;
- b) multiple passageways that can be selected to allow the gas to pass through the correct outlet(s); or
- c) orifice(s).

A device may be an individual device or may be incorporated as part of a regulator(s) or other type valve(s). A component(s) performing a function other than that covered by this Standard shall comply with the applicable American National Standard(s) or Canadian Standard(s).

#### **1.3**

Compliance of a device with this Standard does not imply that the device is acceptable for use on gas appliances without supplemental testing with the device applied to the particular appliance design.

#### **1.4**

This Standard applies to devices having a maximum operating gas pressure of 1/2 psi (3.5 kPa) with one or more of the following fuel gases: natural gas and, propane gas.

#### **1.5**

This Standard applies to devices which are capable of operation in ambient temperatures of 32 °F (0 °C) to 125 °F (51.5 °C), at the option of the manufacturer, a greater temperature range may be specified.

#### **1.6**

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

#### **1.7**

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.

## 1.8

All references to psi through this Standard are to be considered gauge pressure unless otherwise specified.

## 1.9

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.

## 1.10

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 Group

CAN/CSA-Z234.1-00 (R2011)

*Canadian Metric Practice Guide*

CSA 8.1-2015

*Elastomeric composite hose and hose coupling for conducting propane and natural gas*

CSA 8.3-2015

*Thermoplastic hose and hose coupling for conducting propane and natural gas*

C22.2 No. 0.15-15

*Adhesive labels*

B149.1-15

*Natural gas and propane installation code*