CSA GROUP™

CSA/ANSI NGV 4.7:20

National Standard of Canada
American National Standard

Automatically pressure operated valves for natural gas dispensing systems

Approved American National Standard
ANSI

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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 to judge its suitability for their particular purpose.

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National Standard of Canada
American National Standard

CSA/ANSI NGV 4.7:20

Automatically pressure operated valves for natural gas dispensing systems

Interprovincial Gas Advisory Council

American National Standards Institute, Inc.

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Contents

Preface

This is the first edition of CSA/ANSI NGV 4.7, *Automatically pressure operated valves for natural gas dispensing systems*.

This Standard encompasses the safe operation, substantial and durable construction, and performance testing of components for automatically pressure operated valves for natural gas dispensing systems, within limitations given below and in the scope of this Standard.

This Standard is based on proven engineering principles, research, and the combined expertise of gas utilities, manufacturers, users, and others having specialized experience.

Nothing in this Standard is to be considered in any way as indicating a measure of quality, safety, and compliance with the provisions it contains. It is designed to allow compliance of products which may exceed that specified in the provisions herein. In its preparation, full recognition has been given to possibilities of improvement through ingenuity of design. This Standard is subject to revision as further experience and investigation may show it is necessary and desirable.

Users of this Standard are advised that the devices/products/activities within its scope might be subject to regulation at the federal, state, provincial, or local levels. Users are strongly urged to investigate this possibility through appropriate channels. In the event of a conflict with this Standard, the federal, state, provincial, or local regulations should be followed.

This Standard does not apply to fuel system components that will be incorporated during original manufacture of motor vehicles which comply with *Federal Motor Vehicle Safety Standards (FMVSS)* or *Canadian Motor Vehicle Safety Standards (CMVSS)* for Natural Gas Powered Vehicles.

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

CSA Group acknowledges that the development of this Standard was made possible, in part, by the financial support of Natural Resources Canada.

This Standard was prepared by the Subcommittee on Breakaway Devices and Valves for Natural Gas Vehicle Dispensing Systems, under the jurisdiction of the Technical Committee on Natural Gas Transportation and the Strategic Steering Committee on Transportation, and has been formally approved by the Technical Committee 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.

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.*

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Automatically pressure operated valves for natural gas dispensing systems

1 Scope

1.1 Types of valves in the scope of this Standard

The requirements of this Standard apply to automatic valves used in compressed natural gas dispensing systems as specified in Table 1.

Table 1
Included and excluded valves
(See Clause 1.1.)

Included	Excluded
Pneumatically actuated — ball, needle/globe valves	Electrically actuated valves **Note:** *Refer to UL 429, UL 1203, CSA C22.2 No. 139, or equivalent safety levels.*
Excess flow valves	Hydraulically actuated valves **Note:** *Not utilized in NGV fuelling.*
Diaphragm valves	Pressure relief valves
Dome load valves	Pressure regulating valves
Emergency shutdown (ESD) valves	—

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.