



Lever operated non-lubricated plug type gas shut-off valves



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Standards Update Service

CSA 3.16:21

February 2021

Title: *Lever operated non-lubricated plug type gas shut-off valves*

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National Standard of Canada

CSA 3.16:21

***Lever operated non-lubricated plug
type gas shut-off valves***

IGAC

Interprovincial Gas Advisory Council



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*Approved on January 26, 2021 by IGAC
Published in February 2021 by CSA Group
A not-for-profit private sector organization
178 Rexdale Boulevard, Toronto, Ontario, Canada M9W 1R3*

*To purchase standards and related publications, visit our Online Store at www.csagroup.org/store/
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*ICS 23.060
ISBN 978-1-4883-3431-3*

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Preface

This is the fourth edition of CSA 3.16, *Lever operated non-lubricated plug type gas shut-off valves*. It supersedes the previous editions published in 2015, 1988, and 1985.

The major changes to this edition include the following:

- a) an alternative manufacturing production test has been added; and
- b) updated formatting throughout the Standard.

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

This Standard was prepared by the ANSI/CSA Joint Subcommittee on Standards on Manual Valves, under the jurisdiction of the Technical Committee on Gas Appliances and Related Accessories and Related Accessories and the Strategic Steering Committee on Standards for Gas Appliances and Related Accessories, and had been formally approved by the CSA Technical Committee and the Interprovincial/Territorial 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.

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 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 and yet not be in full agreement with all clauses of this Standard.*
- 4) *To submit a request for interpretation of this Standard, please send the following information to inquiries@csagroup.org and include “Request for interpretation” in the subject line:*
 - a) *define the problem, making reference to the specific clause, and, where appropriate, include an illustrative sketch;*
 - 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.

- 5) *This Standard is subject to review within five years from the date of publication. Suggestions for its improvement will be referred to the appropriate committee. To submit a proposal for change, please send the following information to inquiries@csagroup.org and include "Proposal for change" in the subject line:*
- a) *Standard designation (number);*
 - b) *relevant clause, table, and/or figure number;*
 - c) *wording of the proposed change; and*
 - d) *rationale for the change.*

CSA 3.16:21

Lever operated non-lubricated plug type gas shut-off valves

1 Scope

1.1

This Standard applies to manual lever operated, gas shut-off valves sizes NPS 1/4 to 8 of metallic construction with weld and flanged and threaded ends other than pressure lubricated design for use with natural gas, manufactured gas, and liquefied petroleum gases.

Notes:

- 1) Valves covered by this Standard may be used on "digester gas" (methane produced during sewage treatment) but because of entrained contaminants their use is subject to agreement between the manufacturer and the purchaser.
- 2) Valves covered by this Standard may not be used on "sour gas" (gas with entrained hydrogen sulphide) without modification(s). Manufacturers should be consulted for their recommendation.

1.2

All valves covered by this Standard will be limited as to the service temperature and/or special provisions in accordance with the following designations and descriptions in Clauses 5 to 9.

- a) Clause 5: -30 to 65 °C (-22 to 149 °F);
- b) Clause 6: -40 to 65 °C (-40 to 149 °F);
- c) Clause 7: -60 to 65 °C (-76 to 149 °F);
- d) Clause 8: -30 to 120 °C (-22 to 248 °F); and
- e) Clause 9: -30 to 180 °C (-22 to 356 °F).

1.3

This Standard applies to manual lever operated gas shut-off valves having maximum operating pressure over a range of 0 to 860 kPa (125 psig) and able to withstand field pressure testing to a maximum permissible pressure of 1290 kPa (187 psig).

1.4

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

1.5

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.