



**CSA/ANSI NGV 1:22**  
National Standard of Canada  
American National Standard



# Compressed natural gas vehicle (NGV) fuelling connection devices



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***CSA/ANSI NGV 1:22***

***December 2022***

**Title:** *Compressed natural gas vehicle (NGV) fuelling connection devices*

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*Approved on 10/12/2022 by ANSI*

*Approved on 8/24/2022 by IGAC*

*Published in December 2022 by CSA Group*

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*ICS 75.200*

*ISBN 978-1-4883-4400-8*

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| <b>M. Veenstra</b>    | Ford Motor Company,<br>Dearborn, Michigan, USA<br><i>Category: User Interest</i>                            |                        |
| <b>C. Webster</b>     | Testnet Canada Inc.,<br>Langley, British Columbia, Canada<br><i>Category: General Interest</i>              |                        |
| <b>C. Wertz</b>       | Waste Management,<br>Houston, Texas, USA<br><i>Category: User Interest</i>                                  |                        |
| <b>T. A. Williams</b> | Natural Gas Direct, LLC,<br>Arlington, Virginia, USA<br><i>Category: User Interest</i>                      |                        |
| <b>M. Nesheli</b>     | CSA Group,<br>Toronto, Ontario, Canada  | <i>Project Manager</i> |

# ***Subcommittee on Fuelling Connection Devices for Compressed Natural Gas***

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| <b>J. F. Jordan</b>       | Hexagon Agility,<br>Cook, Minnesota, USA                         | <i>Vice-Chair</i> |
| <b>J. Cardenas</b>        | Staubli Faverges SCA,<br>Faverges, France                        |                   |
| <b>J. P. Cohen</b>        | Air Products and Chemicals Inc.,<br>Allentown, Pennsylvania, USA |                   |
| <b>M. Conrad</b>          | Ford Motor Company,<br>Dearborn, Michigan, USA                   |                   |
| <b>D. Cun</b>             | Honda R&D Americas, Inc.,<br>Torrance, California, USA           |                   |
| <b>J. De Clippeleir</b>   | Covess NV,<br>Hasselt, Limburg, Belgium                          |                   |
| <b>W. Fisher</b>          | Oasis Engineering Ltd.,<br>Tauranga, Bay of Plenty, New Zealand  |                   |
| <b>K. Flint</b>           | Oasis Engineering Ltd.,<br>Tauranga, Bay of Plenty, New Zealand  |                   |
| <b>D. Goldin</b>          | Global Gas Mobility,<br>La Lucila, Argentina                     |                   |
| <b>C. T. Guichard Jr.</b> | New Gas Industries, LLC,<br>New Orleans, Louisiana, USA          |                   |
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| <b>D. Olenick</b>       | OPW CleanEnergy Fueling Products,<br>Hamilton, Ohio, USA                  |
| <b>O. Pastore</b>       | Staubli Faverges,<br>Faverges, France                                     |
| <b>P. Sandsted</b>      | NGVAmerica,<br>Washington, District of Columbia, USA                      |
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| <b>K. Teslovich</b>     | CNG One Source, Inc.,<br>Franklin, Pennsylvania, USA                      |
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| <b>S. Wheaton</b>       | Choshu Industry Corporation of America, Inc.,<br>Calgary, Alberta, Canada |
| <b>A. Willfort</b>      | WEH Technologies Inc.,<br>Katy, Texas, USA                                |
| <b>E. Wolff-Klammer</b> | UL LLC,<br>Northbrook, Illinois, USA                                      |
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# Preface

This is the fourth edition of CSA/ANSI NGV 1, *Compressed natural gas vehicle (NGV) fuelling connection devices*. It supersedes the previous editions published in 2017, 2006, and 1998.

The major changes to this edition include

- a) the addition of HD profiles and a new low-pressure profile for ANG;
- b) low pressure profile from P12 to P9, as requested by the ANG stakeholders; and
- c) the room temperature leak test only requiring type 3 nozzles to be tested at 5 psi.

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 Fuelling Connection Devices for Compressed Natural Gas, under the jurisdiction of the Technical Committee on Natural Gas Transportation and the Transportation Strategic Steering Committee, and has been formally approved by the 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.

This Standard has been developed in compliance with the American National Standards Institute (ANSI).

**Interpretations:** The Technical Committee on Natural Gas Transportation 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 list 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](mailto: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](http://standardsactivities.csa.ca).*