
**Road vehicles — Dimethyl Ether
(DME) fuel system components —
Part 1:
General requirements and definitions**

Véhicules routiers — Composants des systèmes de combustible

Diméthyle Ether (DME) —

Partie 1: Exigences générales et définitions

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 41, *Specific aspects for gaseous fuels*.

A list of all parts in the ISO 22760 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Road vehicles — Dimethyl Ether (DME) fuel system components —

Part 1: General requirements and definitions

1 Scope

This document specifies general requirements and definitions of Dimethyl Ether (DME) fuel system components, intended for use on the types of motor vehicles defined in ISO 3833. It also provides general design principles and specifies requirements for instructions and marking.

This document is applicable to vehicles (mono-fuel, bi-fuel or dual-fuel applications) using Dimethyl Ether in accordance with ISO 16861 and ASTM D7901. It is not applicable to the following:

- a) fuel containers;
- b) stationary gas engines;
- c) container mounting hardware;
- d) electronic fuel management;
- e) refuelling receptacles.

NOTE 1 It is recognized that miscellaneous components not specifically covered herein can be examined to meet the criteria of this document and tested according to the appropriate functional tests.

NOTE 2 All references to pressure in this document are considered gauge pressures unless otherwise specified.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 22760 (all parts), *Road vehicles — Dimethyl Ether (DME) fuel system components*

ISO 6722-1, *Road vehicles — 60 V and 600 V single-core cables — Part 1: Dimensions, test methods and requirements for copper conductor cables*

ISO 6722-2, *Road vehicles — 60 V and 600 V single-core cables — Part 2: Dimensions, test methods and requirements for aluminium conductor cables*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

3.1

valve

device by which the flow of a fluid may be controlled

3.1.1

manual valve

valve (3.1) which is operated manually

3.1.2

automatic valve

valve (3.1) which is not operated manually

3.1.3

automatic tank valve

automatic valve (3.1.2) rigidly fixed to the tank which controls the flow of *Dimethyl Ether* (3.10) out of the tank to the fuel system

3.1.4

check valve

automatic valve (3.1.2) which allows *Dimethyl Ether* (3.10) to flow in only one direction

3.1.5

excess flow valve

automatic valve (3.1.2) which automatically shuts off, or limits, the *Dimethyl Ether* (3.10) flow when the flow exceeds a set design value

3.1.6

manual tank valve

manual valve (3.1.1) rigidly fixed to the tank

3.1.7

pressure relief valve

PRV

self-closing device which opens to prevent a pre-determined pressure being exceeded

3.1.8

service valve

manual valve (3.1.1) which is closed only during vehicle maintenance

3.2

filter

protective device which removes foreign debris or substances from the gas stream

3.3

fitting

connector used in joining a piping, tubing, or hose system

3.4

flexible fuel line

flexible tubing or hose through which *Dimethyl Ether* (3.10) flows

3.5

rail pressure sensor

device which gives rail pressure feedback to electronic control unit (ECU)