SLOVENSKI STANDARD
SIST EN ISO 21058:2021

01-december-2021

Cestna vozila - Priključek za polnjenje dimetilnega etra (DME) (ISO 21058:2019)

Road vehicles - Dimethyl Ether (DME) refuelling connector (ISO 21058:2019)

Straßenfahrzeuge - Dimethylether (DME) Nachfüllstutzen (ISO 21058:2019)

Véhicules routiers - Connecteur de remplissage en Dimethyl Ether (DME) (ISO 21058:2019)

Ta slovenski standard je istoveten z: **EN ISO 21058:2021**

ICS:

43.060.40	Sistemi za gorivo	Fuel systems

SIST EN ISO 21058:2021 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 21058

October 2021

ICS 43.060.40

English Version

Road vehicles - Dimethyl Ether (DME) refuelling connector (ISO 21058:2019)

Véhicules routiers - Connecteur de remplissage en Dimethyl Ether (DME) (ISO 21058:2019)

Straßenfahrzeuge - Dimethylether (DME) Nachfüllstutzen (ISO 21058:2019)

This European Standard was approved by CEN on 13 September 2021.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

Page

European foreword **3**

European foreword

The text of ISO 21058:2019 has been prepared by Technical Committee ISO/TC 22 "Road vehicles" of the International Organization for Standardization (ISO) and has been taken over as EN ISO 21058:2021 by Technical Committee CEN/TC 301 "Road vehicles" the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2022, and conflicting national standards shall be withdrawn at the latest by April 2022.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 21058:2019 has been approved by CEN as EN ISO 21058:2021 without any modification.

INTERNATIONAL STANDARD

ISO 21058

First edition
2019-12

Road vehicles — Dimethyl Ether (DME) refuelling connector

Véhicules routiers — Connecteur de remplissage en Dimethyl Ether (DME)

Reference number
ISO 21058:2019(E)

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword ..... **iv**
Introduction ..... **v**
1 Scope **1**
2 Normative References **1**
3 Terms and definitions **1**
4 General construction requirements **3**
5 Nozzles **4**
6 Standard receptacle dimensions **4**
7 Receptacles **5**
8 Instructions **6**
9 Marking **6**
10 Tests **7**
10.1 General requirements 7
10.2 Impact resistance 7
10.2.1 Nozzle test 7
10.2.2 Receptacle test 7
10.3 Leakage at room temperature 8
10.4 Abnormal loads 8
10.4.1 Test in unpressurised condition 9
10.4.2 Test in pressurised condition 9
10.5 Mounting hardware torque 10
10.6 Leakage at low and high temperatures 10
10.7 Nozzle freezing 10
10.8 Durability 10
10.8.1 Endurance 10
10.8.2 Corrosion resistance 12
10.8.3 Brass material compatibility 13
10.8.4 Resistance to dry heat 13
10.8.5 Ozone ageing 13
10.8.6 Temperature cycle 14
10.8.7 Compatibility to Dimethyl Ether 14
10.8.8 Electrical continuity 14
10.9 Hydrostatic strength 14
10.10 Oxygen ageing 15
10.11 Non-metallic material immersion 15
10.12 Vibration resistance 16
10.13 Creep 16
10.14 Automotive fluid exposure 16
10.14.1 General 16
10.14.2 Test method 16
10.14.3 Fluids 17
10.14.4 Pass criteria 17
Annex A (normative) **Critical dimensions of the nozzle** **18**
Annex B (informative) **Manufacturing and production test plan** **19**
Bibliography **20**

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*.

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.

Introduction

This document was developed to use for the newly produced Dimethyl Ether vehicle fuelling nozzles and receptacles only. As such, it applies to nozzles and receptacles used in the Dimethyl Ether fuelling system and not to the system.

A nozzle meeting the requirements of this document will be functionally compatible from a safety and performance perspective with all listed receptacles of compatible profile and system pressure. Similarly, a receptacle meeting the requirements of this document will be functionally compatible from a safety and performance perspective with all listed nozzles of compatible profile and system pressure.

As there may eventually be many different kinds of nozzles and receptacles available from a variety of manufacturers which, for safety reasons, should all be compatible with each other, this document specifies one standardized receptacle profile. This standard profile incorporates the design specifications (mating materials, geometry and tolerances) which may be considered when evaluating if a submitted nozzle or receptacle meets the requirement of this document.