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STN	**Plniace stanice na zemný plyn Plniace stanice CNG na plnenie vozidiel (ISO 16923: 2026)**	**STN EN ISO 16923** 30 2323

Natural gas fuelling stations - Compressed natural gas (CNG) stations for fuelling vehicles (ISO 16923:2026)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 03/26

Obsahuje: EN ISO 16923:2026, ISO 16923:2026

Oznámením tejto normy sa ruší
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EUROPEAN STANDARD
NORME EUROPÉENNE
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EN ISO 16923

January 2026

ICS 75.200 Supersedes EN ISO 16923:2018

English Version

Natural gas fuelling stations - Compressed natural gas (CNG) stations for fuelling vehicles (ISO 16923:2026)

Stations-service de gaz naturel - Stations de gaz naturel comprimé (GNC) pour le ravitaillement de véhicules (ISO 16923:2026)

Gasfüllanlagen - CNG-Füllanlagen zur Betankung von Fahrzeugen (ISO 16923:2026)

This European Standard was approved by CEN on 4 January 2026.

This European Standard was corrected and reissued by the CEN-CENELEC Management Centre on 04 March 2026.

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

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

Ref. No. EN ISO 16923:2026 E

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European foreword

This document (EN ISO 16923:2026) has been prepared by Technical Committee ISO/TC 340 "Natural gas fuelling stations" in collaboration with Technical Committee CEN/TC 326 “Natural gas vehicles - Fuelling and operation” the secretariat of which is held by TSE.

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of an identical text or by endorsement, at the latest by July 2026, and conflicting national standards shall be withdrawn at the latest by July 2026.

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 supersedes EN ISO 16923:2018.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

Any feedback and questions on this document should be directed to the users’ national standards body/national committee. 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, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO 16923:2026 has been approved by CEN as EN ISO 16923:2026 without any modification.

Annex F
(informative)

A-deviation

A-deviation: National deviation due to regulations, the alteration of which is for the time being outside the competence of the CEN-CENELEC member.

This European standard does not fall under any Directive of the EU.

In the relevant CEN-CENELEC countries these A-deviations are valid instead of the provisions of the European standard until they have been removed.

Country	Clause	Deviation
ITALY	Annex B (normative) Separation distances B.3 Internal Separation distances, Table B.1 – Internal separation distances	According to Italian legislation concerning rules of fire prevention for the design, construction and operation of stations for fuelling compressed natural gas (CNG) to vehicles, the internal safety distances are higher than those prescribed in the standard. Ministerial Decree of 24th May 2002 by the Ministry of Internal Affairs (published on the Official Journal of the Italian Republic n. 131 of 6th June 2002), as amended by Ministerial Decree of 28th June 2002 (published on the Official Journal of the Italian Republic n. 161 of 11th July 2002), and by Ministerial Decree of 12th March 2019 (published on the Official Journal of the Italian Republic n. 67 of 20th March 2019) concerning rules of fire prevention for the design, construction and operation of stations for fuelling compressed natural gas (CNG) to vehicles.

International Standard

ISO 16923

Natural gas fuelling stations — Compressed natural gas (CNG) stations for fuelling vehicles

Stations-service de gaz naturel — Stations de gaz naturel comprimé (GNC) pour le ravitaillement de véhicules

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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 document 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).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

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 340, *Natural gas fuelling stations,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 326, *Natural gas vehicles – Fuelling and operation,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 16923:2016), which has been technically revised.

The main changes are as follows:

— clarification and expansion of the scope to explicitly exclude vehicle-to-vehicle transfer and vehicle refuelling appliances (VRAs);

— revision of Clause 2;

— revision of Clause 3, with the inclusion of new entries;

— revision of the risk management clause to incorporate a lifecycle approach, with enhanced provisions for ignition prevention, explosion mitigation, and equipment protection;

— revision of the design and safety provisions to strengthen them, including requirements for physical protection of exposed gas equipment, electrical system reliability, and enhanced venting and shutdown protocols;

— revision of Annex A (hazardous zone classification) to clarify designer responsibilities in determining hazardous areas;

— revision of annexes to reflect current operational practices, with revised examples for fuelling procedures, emergency instructions, and maintenance programs.

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.

International Standard **ISO 16923:2026(en)**

Natural gas fuelling stations — Compressed natural gas (CNG) stations for fuelling vehicles

1 Scope

This document specifies requirements for the design, construction, operation, maintenance and inspection of stations for fuelling compressed natural gas (CNG) to vehicles, including equipment, safety and control devices up to the fuelling nozzle to the vehicle.

This document applies to fuelling stations supplied with natural gas as defined in local applicable gas composition regulations or ISO 13686. It also applies to other gases meeting these requirements.

This document also applies to portions of a fuelling station where natural gas is in a gaseous state and dispensing CNG derived from liquefied natural gas (LCNG) according to ISO 16924.

This document covers all equipment for downstream gas supply connection (i.e. point of separation between the CNG fuelling station piping and the pipeline network). Fuelling station nozzle are not defined in this document.

This document covers fuelling stations with the following characteristics:

— slow fill;

— fast fill;

— private access;

— public access (self-service or assisted);

— fuelling stations with fixed storage;

— fuelling stations with mobile storage (daughter station);

— multi-fuel stations.

This document is not applicable to vehicle to vehicle transfer or vehicle refuelling appliances (VRA).

NOTE This document is based on the condition that the gas entering the fuelling station is odorized. For unodorized gas fuelling stations, additional safety requirements are included in Clause 10.

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 834-1, *Fire-resistance tests — Elements of building construction — Part 1: General requirements*

ISO 4126-1, *Safety devices for protection against excessive pressure — Part 1: Safety valves*

ISO 30013, *Rubber and plastics hoses — Methods of exposure to laboratory light sources — Determination of changes in colour, appearance and other physical properties*

ISO 9809-1, *Gas cylinders — Design, construction and testing of refillable seamless steel gas cylinders and tubes — Part 1: Quenched and tempered steel cylinders and tubes with tensile strength less than 1 100 MPa*

ISO 9809-2, *Gas cylinders — Design, construction and testing of refillable seamless steel gas cylinders and tubes — Part 2: Quenched and tempered steel cylinders and tubes with tensile strength greater than or equal to 1 100 MPa*

ISO 11119-1, *Gas cylinders — Design, construction and testing of refillable composite gas cylinders and tubes — Part 1: Hoop wrapped fibre reinforced composite gas cylinders and tubes up to 450 l*

ISO 11119-2, *Gas cylinders — Design, construction and testing of refillable composite gas cylinders and tubes — Part 2: Fully wrapped fibre reinforced composite gas cylinders and tubes up to 450 l with load-sharing metal liners*

ISO 11119-3, *Gas cylinders — Design, construction and testing of refillable composite gas cylinders and tubes — Part 3: Fully wrapped fibre reinforced composite gas cylinders and tubes up to 450 l with non-load-sharing metallic or non-metallic liners or without liners*

ISO 11439, *Gas cylinders — High pressure cylinders for the on-board storage of natural gas as a fuel for automotive vehicles*

ISO 11925-3, *Reaction to fire tests — Ignitability of building products subjected to direct impingement of flame — Part 3: Multi-source test*

ISO 12100, *Safety of machinery — General principles for design — Risk assessment and risk reduction*

ISO 13847, *Petroleum and natural gas industries — Pipeline transportation systems — Welding of pipelines*

ISO 14120, *Safety of machinery — Guards — General requirements for the design and construction of fixed and movable guards*

ISO 15500-2, *Road vehicles — Compressed natural gas (CNG) fuel system components — Part 2: Performance and general test methods*

ISO 15500-17, *Road vehicles — Compressed natural gas (CNG) fuel system components — Part 17: Flexible fuel line*

ISO 15589-1, *Petroleum, petrochemical and natural gas industries — Cathodic protection of pipeline systems — Part 1: On-land pipelines*

ISO 15649, *Petroleum and natural gas industries — Piping*

ISO 23684, *Road vehicles — Technical personnel dealing with natural gas vehicles (NGVs) — Training and qualification*

ISO 20607, *Safety of machinery — Instruction handbook — General drafting principles*

ISO 20816-8, *Mechanical vibration — Measurement and evaluation of machine vibration — Part 8: Reciprocating compressor systems*

ISO 24671, *Road vehicles — Qualification and certification of technical personnel dealing with natural gas vehicles (NGVs)*

IEC 31010, *Risk management — Risk assessment techniques*

IEC 60079-0, *Electrical apparatus for explosive gas atmospheres — Part 0: General requirements*

IEC 60079-1, *Explosive atmospheres — Part 1: Equipment protection by flame-proof enclosures*

IEC 60079-7, *Explosive atmospheres - Part 7: Equipment protection by increased safety "e"*

IEC 60079-10-1, *Explosive atmospheres — Part 10-1: Classification of areas — Explosive gas atmospheres*

IEC 60079-11, *Explosive atmospheres — Part 11: Equipment Protection by Intrinsic Safety "i"*

IEC 60079-14, *Electrical apparatus for explosive gas atmospheres — Part 14: Electrical installations in hazardous areas (other than mines)*

IEC 60079-17, *Explosive atmospheres - Part 17: Electrical installations inspection and maintenance*

IEC 60079-25, *Explosive atmospheres — Part 25: Intrinsically safe electrical systems*

IEC 60079-29-1, *Explosive atmospheres - Part 29-1: Gas detectors - Performance requirements of detectors for fammable gases*

IEC 60079-29-4, *Explosive atmospheres - Part 29-4: Gas detectors - Performance requirements of open path detectors for fammable gases*

IEC 60204-1, *Safety of machinery — Electrical equipment of machines — Part 1: General requirements*

IEC 60529, *Degrees of protection provided by enclosures (IP Code)*

IEC 61508-1, *Functional safety of electrical/electronic/programmable electronic safety related systems – Part 1: General requirements*

IEC 61508-2, *Functional safety of electrical/electronic/programmable electronic safety related systems – Part 2: Requirements for electrical/electronic/programmable electronic safety related systems*

IEC 61508-3, *Functional safety of electrical/electronic/programmable electronic safety related systems – Part 3: Software requirements*

IEC 61511-1:2016+AMD1:2017, *Functional safety – Safety instrumented systems for the process industry sector – Part 1: Framework, definitions, system, hardware and application programming requirements*

IEC 62443-2, *Industrial communication networks – network and system security - Part 2: Policies and Procedures*

IEC 62443-3, *Industrial communication networks – network and system security – Part 3: System Level*

IEC 62443-4, *Industrial communication networks – network and system security – Part 4: Component Level*

ISO 2615:2024, *Analysis of natural gas —Biomethane — Determination of the content of compressor oil*