

VÄIKELAEVAD. VEELDATUD NAFTAGAASI (LPG)
SÜSTEEMID

Small craft - Liquefied petroleum gas (LPG) systems
(ISO 10239:2025)

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>See Eesti standard EVS-EN ISO 10239:2025 sisaldab Euroopa standardi EN ISO 10239:2025 ingliskeelset teksti.</p> <p>Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.</p> <p>Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 23.04.2025.</p> <p>Standard on kättesaadav Eesti Standardimis- ja Akrediteerimiskeskusest.</p>	<p>This Estonian standard EVS-EN ISO 10239:2025 consists of the English text of the European standard EN ISO 10239:2025.</p> <p>This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.</p> <p>Date of Availability of the European standard is 23.04.2025.</p> <p>The standard is available from the Estonian Centre for Standardisation and Accreditation.</p>
--	---

Tagasisidet standardi sisu kohta on võimalik edastada, kasutades EVS-i veebilehel asuvat tagasiside vormi või saates e-kirja meiliaadressile standardiosakond@evs.ee.

ICS 47.080

Standardite reprodutseerimise ja levitamise õigus kuulub Eesti Standardimis- ja Akrediteerimiskeskusele. Andmete paljundamine, taastekitamine, kopeerimine, salvestamine elektroonsesse süsteemi või edastamine ükskõik millises vormis või millisel teel ilma Eesti Standardimis- ja Akrediteerimiskeskuse kirjaliku loata on keelatud.

Kui Teil on küsimusi standardite autorikaitse kohta, võtke palun ühendust Eesti Standardimis- ja Akrediteerimiskeskusega: Koduleht www.evs.ee; telefon 605 5050; e-post info@evs.ee

The right to reproduce and distribute standards belongs to the Estonian Centre for Standardisation and Accreditation. No part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, without a written permission from the Estonian Centre for Standardisation and Accreditation.

If you have any questions about copyright, please contact Estonian Centre for Standardisation and Accreditation: Homepage www.evs.ee; phone +372 605 5050; e-mail info@evs.ee

EUROPEAN STANDARD

EN ISO 10239

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2025

ICS 47.080

Supersedes EN ISO 10239:2017

English Version

Small craft - Liquefied petroleum gas (LPG) systems (ISO 10239:2025)

Petits navires - Installations alimentées en gaz de pétrole liquéfiés (GPL) (ISO 10239:2025)

Kleine Wasserfahrzeuge - Flüssiggas-Anlagen (LPG) (ISO 10239:2025)

This European Standard was approved by CEN on 12 January 2025.

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, Türkiye 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

European foreword

This document (EN ISO 10239:2025) has been prepared by Technical Committee ISO/TC 188 "Small craft" in collaboration with Technical Committee CEN/TC 464 "Small Craft" the secretariat of which is held by SIS.

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 October 2025, and conflicting national standards shall be withdrawn at the latest by October 2025.

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 10239:2017.

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.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

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 10239:2025 has been approved by CEN as EN ISO 10239:2025 without any modification.

Contents

	Page
Foreword	iv
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 General provisions	4
5 Pressure regulating device	5
6 LPG supply line	6
6.1 General.....	6
6.2 Piping.....	6
6.3 Hose assemblies.....	7
6.4 Materials.....	8
6.5 Installation.....	8
6.6 Shut-off valves.....	9
7 Appliances	10
8 Ducts and flues for air intake and combustion product discharge	11
9 Location and installation of LPG cylinders	12
9.1 General.....	12
9.2 Cylinder lockers.....	13
9.3 Cylinder housings.....	13
10 Ventilation	14
11 LPG installation tightness test	14
12 LPG system commissioning label	14
13 Ignition protection from electrical devices	15
14 Owner's manual	15
Annex A (informative) Design guidelines for pressure drop due to hose/pipe resistance	16
Annex B (normative) Ventilation	17
Annex C (normative) Instructions to be included with the owner's manual	18
Annex D (normative) Cooking appliances with integral LPG cartridges with a capacity of 225 g or less	20
Annex E (informative) Examples of cylinder lockers and cylinder housings and their locations	21
Bibliography	24

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 188, *Small craft*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 464, *Small Craft*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO 10239:2014), which has been technically revised.

The main changes are as follows:

- the Scope has been clarified;
- new definitions for “room-sealed appliance” and “open-flued appliance” have been added;
- new definitions for “cylinder locker” and “cylinder housing” have been added, including some examples in a new [Annex E](#);
- [Clause 9](#) on the location and installation of LPG cylinders has been revised;
- a new [Clause 12](#) has been added with details of a commissioning label;
- the location of pressure regulating devices has been clarified;
- [Annex C](#) has been revised to update the instructions to be included with the owner's manual;
- a new [Annex E](#) has been added to provide examples of cylinder lockers and cylinder housings.

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.

Small craft — Liquefied petroleum gas (LPG) systems

1 Scope

This document specifies requirements for the installation of permanently installed liquefied petroleum gas (LPG) systems and LPG-burning appliances on small craft.

This document is applicable to portable cooking appliances with internal LPG cartridges, with a capacity of 225 g or less (see [Annex D](#)).

This document is applicable to the storage of all LPG cylinders.

NOTE 1 National regulations can apply to the technical requirements of LPG cylinders.

This document does not contain procedures for commissioning new LPG installations or system maintenance or upgrades.

This document does not apply to LPG-fuelled propulsion engines or LPG-driven generators.

NOTE 2 National codes and procedures appropriate to the country concerned can be available.

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 7-1, *Pipe threads where pressure-tight joints are made on the threads — Part 1: Dimensions, tolerances and designation*

ISO 565, *Test sieves — Metal wire cloth, perforated metal plate and electroformed sheet — Nominal sizes of openings*

ISO 8434-1:2018, *Metallic tube connections for fluid power and general use — Part 1: 24° cone connectors*

ISO 8666, *Small craft — Principal data*

ISO 8846, *Small craft — Electrical devices — Protection against ignition of surrounding flammable gases*

ISO 9094, *Small craft — Fire protection*

ISO 11812, *Small craft — Watertight or quick-draining recesses and cockpits*

EN 751-2, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water — Part 2: Non-hardening jointing compounds*

EN 751-3, *Sealing materials for metallic threaded joints in contact with 1st, 2nd and 3rd family gases and hot water — Part 3: Unsintered PTFE tapes and PTFE strings*

EN 1254-2, *Copper and copper alloys — Plumbing fittings — Part 2: Compression fittings for use with copper tubes*

EN 1949, *Specification for the installation of LPG systems for habitation purposes in leisure accommodation vehicles and accommodation purposes in other vehicles*

EN 15266, *Stainless steel pliable corrugated tubing kits in buildings for gas with an operating pressure up to 0,5 bar*

EN 16129:2013, *Pressure regulators, automatic change-over devices, having a maximum regulated pressure of 4 bar, with a maximum capacity of 150 kg/h, associated safety devices and adaptors for butane, propane, and their mixtures*

3 Terms and definitions

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

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

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

3.1

craft

small craft

recreational boat, and other watercraft using similar equipment, of up to 24 m length of hull (L_H)

Note 1 to entry: The measurement methodology for the length of hull (L_H) is defined in ISO 8666.

[SOURCE: ISO 8666:2020, 3.15, modified — Note 1 to entry added.]

3.2

liquefied petroleum gas

LPG

mixture of light hydrocarbons, gaseous under conditions of normal temperature and pressure, and maintained in the liquid state by increase of pressure or lowering of temperature

Note 1 to entry: The principal components are propane, propene, butanes or butenes.

Note 2 to entry: LPG can be obtained as commercial butane, commercial propane or a mixture of the two.

[SOURCE: EN 624:2011, 3.1.7, modified — Note 2 to entry added.]

3.3

permanently installed

securely fastened so that tools are required for removal

[SOURCE: ISO 10088:2022, 3.3]

3.4

cylinder housing

ventilated enclosure with or without a door which is vapour tight to the interior of the *craft* (3.1), intended solely for storage of one or more *liquefied petroleum gas* (3.2) cylinders, *pressure regulating devices* (3.12) and safety devices, and located so that leakage flows overboard unimpeded

3.5

cylinder locker

enclosure which is vapour-tight to at least the height of the cylinder valve and other high-pressure components and is completely vapour tight to the interior of the *craft* (3.1), intended solely for storage of one or more *liquefied petroleum gas* (3.2) cylinders, *pressure regulating devices* (3.12) and safety devices, and fitted with a drain so that leakage flows overboard unimpeded