VEEARVESTID KÜLMALE JOOGIVEELE JA KUUMALE VEELE. OSA 1: METROLOOGILISED JA TEHNILISED NÕUDED

Water meters for cold potable water and hot water - Part 1: Metrological and technical requirements (ISO 4064-1:2024)

EESTI STANDARDIMIS- JA AKREDITEERIMISKESKUS
ESTONIAN CENTRE FOR STANDARDISATION AND ACCREDITATION

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

See Eesti standard EVS-EN ISO 4064-1:2025 sisaldab Euroopa standardi EN ISO 4064-1:2025 ingliskeelset teksti.	This Estonian standard EVS-EN ISO 4064-1:2025 consists of the English text of the European standard EN ISO 4064-1:2025.
Standard on jõustunud sellekohase teate avaldamisega EVS Teatajas.	This standard has been endorsed with a notification published in the official bulletin of the Estonian Centre for Standardisation and Accreditation.
Euroopa standardimisorganisatsioonid on teinud Euroopa standardi rahvuslikele liikmetele kättesaadavaks 26.02.2025.	Date of Availability of the European standard is 26.02.2025.
Standard on kättesaadav Eesti Standardimis-ja Akrediteerimiskeskusest.	The standard is available from the Estonian Centre for Standardisation and Accreditation.

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

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Water meters for cold potable water and hot water - Part 1: Metrological and technical requirements (ISO 4064-1:2024)

Compteurs d'eau potable froide et d'eau chaude - Partie 1: Exigences métrologiques et techniques (ISO 4064-1:2024)

Wasserzähler zum Messen von kaltem Trinkwasser und heißem Wasser - Teil 1: Metrologische und technische Anforderungen (ISO 4064-1:2024)

This European Standard was approved by CEN on 23 September 2024.

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European foreword

This document (EN ISO 4064-1:2025) has been prepared by Technical Committee ISO/TC 30 "Measurement of fluid flow in closed conduits" in collaboration with Technical Committee CEN/TC 92 “Water meters” the secretariat of which is held by SNV.

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of an identical text or by endorsement, at the latest by August 2025, and conflicting national standards shall be withdrawn at the latest by August 2025.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 4064-1:2017.

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 4064-1:2024 has been approved by CEN as EN ISO 4064-1:2025 without any modification.

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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.

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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 30, *Measurement of fluid flow in closed conduits*, Subcommittee SC 7, *Volume methods including water meters* and OIML Technical Subcommittee TC 8/SC 5, *Water meters,* in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 92, *Water meters,* in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fifth edition of ISO 4064-1 cancels and replaces the fourth edition (ISO 4064-1:2014), which has been technically revised.

The main changes are as follows:

— a few editorial and technical changes were done throughout the document.

This edition of ISO 4064-1 is identical to the corresponding edition of OIML R 49-1, which has been issued concurrently. OIML R 49-1 was approved for final publication by the International Committee of Legal Metrology at its 59th meeting in October 2024. It will be submitted to the International Conference on Legal Metrology in 2025 for formal sanction.

A list of all parts in the ISO 4064 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.

Water meters for cold potable water and hot water —

Part 1: Metrological and technical requirements

1 Scope

This document specifies the metrological and technical requirements for water meters for cold potable water and hot water flowing through a fully charged, closed conduit. These water meters incorporate devices which indicate the accumulated volume.

In addition to water meters based on mechanical principles, this document applies to devices based on electrical or electronic principles, and mechanical principles incorporating electronic devices, used to measure the volume of cold potable water and hot water.

This document also applies to electronic ancillary devices. Ancillary devices are optional. However, it is possible for national or regional regulations to render some ancillary devices mandatory in relation to the utilization of water meters.

NOTE Any national regulations apply in the country of use.

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 4064-2:2024|OIML R 49-2:2024, *Water meters for cold potable water and hot water — Part 2: Test methods*

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/

NOTE 1 This terminology conforms to that used in ISO/IEC Guide 99:2007|OIML V 2-200:2012[1], OIML V 1[8] and OIML D 11[9]. Modified versions of some terms defined in References [1], [8] and [9] are listed here.

NOTE 2 The following terms are referenced in the other parts of the ISO 4064| OIML R 49 series but are not cited within the main body of this document: *tariff control device* (3.1.9), *pre-setting device* (3.1.10), *meter for two constant partners* (3.1.12), *in-line meter* (3.1.13), *cartridge meter connection interface* (3.1.21), *meter with exchangeable metrological module* (3.1.22), *connection interface for meters with exchangeable metrological modules* (3.1.24), *non-adjustable water meter* (3.1.25), *adjustable water meter* (3.1.26), *initial intrinsic error* (3.2.7), *resolution of a displaying device* (3.2.14), *overload flow rate* (3.3.3), *transitional flow rate* (3.3.4), *combination meter changeover flow rate* (3.3.6), *minimum admissible temperature* (3.3.7), *maximum admissible temperature* (3.3.8), *working pressure* (3.3.11), *test flow rate* (3.3.13), *nominal diameter* (3.3.14), *temperature stability* (3.4.8), *preconditioning* (3.4.9), *recovery* (3.4.11), *automatic checking facility* (3.5.5), *permanent automatic checking facility type P automatic checking facility* (3.5.6), *intermittent automatic checking facility type I automatic checking facility* (3.5.7), *non-automatic checking facility type N checking facility* (3.5.8).