SLOVENSKI STANDARD
SIST EN ISO 4064-1:2014

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Nadomešča:
SIST EN 14154-1:2005+A2:2011
SIST EN 14154-2:2005+A2:2011
SIST EN 14154-3:2005+A2:2011

Vodomeri za merjenje hladne pitne vode in vroče vode - 1. del: Metrološke in tehnične zahteve (ISO 4064-1:2014)

Water meters for cold potable water and hot water - Part 1: Metrological and technical requirements (ISO 4064-1:2014)

Wasserzähler zum Messen von kaltem Trinkwasser und heißem Wasser - Teil 1: Metrologische und technische Anforderungen (ISO 4064-1:2014)

Compteurs d'eau potable froide et d'eau chaude - Partie 1: Exigences métrologiques et techniques (ISO 4064-1:2014)

Ta slovenski standard je istoveten z: **EN ISO 4064-1:2014**

ICS:

17.120.10	Pretok v zaprtih vodih	Flow in closed conduits
91.140.60	Sistemi za oskrbo z vodo	Water supply systems

SIST EN ISO 4064-1:2014 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN ISO 4064-1

June 2014

ICS 91.140.60

Supersedes EN 14154-1:2005+A2:2011, EN 14154-2:2005+A2:2011, EN 14154-3:2005+A2:2011

English Version

Water meters for cold potable water and hot water - Part 1: Metrological and technical requirements (ISO 4064-1:2014)

Compteurs d'eau potable froide et chaude - Partie 1: Exigences métrologiques et techniques (ISO 4064-1:2014)

Wasserzähler zum Messen von kaltem Trinkwasser und heißem Wasser - Teil 1: Metrologische und technische Anforderungen (ISO 4064-1:2014)

This European Standard was approved by CEN on 21 September 2013.

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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.

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

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

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Foreword

This document (EN ISO 4064-1:2014) 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 December 2014, and conflicting national standards shall be withdrawn at the latest by December 2014.

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

This document supersedes EN 14154-1:2005+A2:2011, EN 14154-2:2005+A2:2011, EN 14154-3:2005+A2:2011.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For relationship with EU Directive(s), see informative Annex ZA, which is an integral part of this document.

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, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 4064-1:2014 has been approved by CEN as EN ISO 4064-1:2014 without any modification.

Annex ZA
(informative)

Relationship between this European Standard and the Essential Requirements of Requirements of EU Directive 2004/22/EC

This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide one means of conforming to Essential Requirements of the New Approach Directive 2004/22/EC, *Measuring instruments directive.*

Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.

WARNING: Other requirements and other EU Directives may be applicable to the products falling within the scope of this standard.

INTERNATIONAL STANDARD

ISO 4064-1

Fourth edition
2014-06-01

Water meters for cold potable water and hot water —

Part 1: Metrological and technical requirements

Compteurs d'eau potable froide et d'eau chaude —
Partie 1: Exigences métrologiques et techniques

Reference number
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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, 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, 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.

The committees responsible for this document are 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*.

This fourth edition of ISO 4064-1 cancels and partially replaces the third edition (ISO 4064-1:2005), which has been technically revised. Some provisions of the third edition are addressed in ISO 4064-4:2014.

ISO 4064 consists of the following parts, under the general title *Water meters for cold potable water and hot water*:

— *Part 1: Metrological and technical requirements*

— *Part 2: Test methods*

— *Part 3: Test report format*

— *Part 4: Non-metrological requirements not covered in* ISO 4064-1

— *Part 5: Installation requirements*

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 48th meeting in Ho Chi Minh City, Vietnam in October 2013. It will be submitted to the International Conference on Legal Metrology in 2016 for formal sanction.

Water meters for cold potable water and hot water —

Part 1:
Metrological and technical requirements

1 Scope

This part of ISO 4064|OIML R 49 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 integrated volume.

In addition to water meters based on mechanical principles, this part of ISO 4064|OIML R 49 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 part of ISO 4064|OIML R 49 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, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 4064-2:2014|OIML R 49-2:2013, *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 definitions apply.

NOTE This terminology conforms to that used in ISO/IEC Guide 99:2007|OIML V 2-200:2012,[1] OIML V 1:2013[2] and OIML D 11.[3] Modified versions of some terms defined in References[1]–[3] are listed here.

3.1 Water meter and its constituents

3.1.1
water meter
instrument intended to measure continuously, memorize, and display the volume of water passing through the measurement transducer at metering conditions

Note 1 to entry: A water meter includes at least a measurement transducer, a calculator (including adjustment or correction devices, if present) and an indicating device. These three devices can be in different housings.

Note 2 to entry: A water meter may be a combination meter (see 3.1.16).

Note 3 to entry: In this International Standard, a water meter is also referred to as a “meter”.

3.1.2
measurement transducer
part of the meter that transforms the flow rate or volume of water to be measured into signals which are passed to the calculator and includes the sensor

Note 1 to entry: The measurement transducer may function autonomously or use an external power source and may be based on a mechanical, electrical or electronic principle.

3.1.3
sensor
element of a meter that is directly affected by a phenomenon, body or substance carrying a quantity to be measured

[SOURCE: ISO/IEC Guide 99:2007|OIML V 2-200:2012 (VIM), 3.8, modified — "meter" replaces "measuring system".]

Note 1 to entry: For a water meter, the sensor may be a disc, piston, wheel or turbine element, the electrodes on an electromagnetic meter, or another element. The element senses the flow rate or volume of water passing through the meter and is referred to as a "flow sensor" or "volume sensor".

3.1.4
calculator
part of the meter that transforms the output signals from the measurement transducer(s) and, possibly, from associated measuring instruments and, if appropriate, stores the results in memory until they are used

Note 1 to entry: The gearing is considered to be the calculator in a mechanical meter.

Note 2 to entry: The calculator may be capable of communicating both ways with ancillary devices.

3.1.5
indicating device

part of the meter that provides an indication corresponding to the volume of water passing through the meter

Note 1 to entry: For the definition of the term "indication", see ISO/IEC Guide 99:2007|OIML V 2-200:2012 (VIM), 4.1.

3.1.6
adjustment device
part of the meter that allows an adjustment of the meter such that the error curve of the meter is generally shifted parallel to itself to fit in the envelope of the maximum permissible errors

Note 1 to entry: For the definition of the term "adjustment of a measuring system", see ISO/IEC Guide 99:2007|OIML V 2-200:2012 (VIM), 3.11.

3.1.7
correction device
device connected to or incorporated in the meter for automatic correction of the volume of water at metering conditions, by taking into account the flow rate and/or the characteristics of the water to be measured and the pre-established calibration curves

Note 1 to entry: The characteristics of the water, e.g. temperature and pressure, may be either measured using associated measuring instruments or stored in a memory in the meter.

Note 2 to entry: For the definition of the term "correction", see ISO/IEC Guide 99:2007|OIML V 2-200:2012 (VIM), 2.53.

3.1.8
ancillary device
device intended to perform a specific function, directly involved in elaborating, transmitting or displaying measured values

Note 1 to entry: For the definition of "measured value", see ISO/IEC Guide 99:2007|OIML V 2-200:2012 (VIM), 2.10.

Note 2 to entry: The main ancillary devices are:

a) zero-setting device;

b) price-indicating device;

c) repeating indicating device;

d) printing device;

e) memory device;

f) tariff control device;

g) pre-setting device;

h) self-service device;

i) flow sensor movement detector (for detecting movement of the flow sensor before this is clearly visible on the indicating device);

j) remote reading device (which may be incorporated permanently or added temporarily).

Note 3 to entry: Depending on national legislation, ancillary devices may be subject to legal metrological control.

3.1.9
tariff control device
device that allocates measured values into different registers depending on tariff or other criteria, each register having the possibility to be read individually

3.1.10
pre-setting device
device that permits the selection of the quantity of water to be measured and which automatically stops the flow of water after the selected quantity has been measured

3.1.11
associated measuring instrument
instrument connected to the calculator or the correction device for measuring a quantity, characteristic of water, with a view to making a correction and/or a conversion

3.1.12
meter for two constant partners
meter that is permanently installed and only used for deliveries from one supplier to one customer

3.1.13
in-line meter
type of meter that is fitted into a closed conduit by means of the meter end connections provided

Note 1 to entry: The end connections may be flanged or threaded.

3.1.14
complete meter
meter whose measurement transducer, calculator, and indicating device are not separable