

SLOVENSKI STANDARD
oSIST prEN ISO 4064-3:2023
01-december-2023

Vodomeri za merjenje hladne pitne vode in vroče vode - 3. del: Obrazec za poročilo o preskusu (ISO/DIS 4064-3:2023)

Water meters for cold potable water and hot water - Part 3: Test report format (ISO/DIS 4064-3:2023)

Wasserzähler zum Messen von kaltem Trinkwasser und heißem Wasser - Teil 3: Format des Prüfberichtes (ISO/DIS 4064-3:2023)

Compteurs d'eau potable froide et d'eau chaude - Partie 3: Format du rapport d'essais (ISO/DIS 4064-3:2023)

Ta slovenski standard je istoveten z: prEN ISO 4064-3

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ICS:

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

oSIST prEN ISO 4064-3:2023

en,fr,de

DRAFT INTERNATIONAL STANDARD

ISO/DIS 4064-3

ISO/TC 30/SC 7

Secretariat: BSI

Voting begins on:
2023-10-09Voting terminates on:
2024-01-01

Water meters for cold potable water and hot water —

Part 3: Test report format

*Compteurs d'eau potable froide et d'eau chaude —**Partie 3: Format du rapport d'essais*

ICS: 91.140.60

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Published in Switzerland

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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 4064-3 cancels and replaces the third edition (ISO 4064-3:2005), which has been technically revised. Provisions of the third edition are addressed in ISO 4064-2:2014|OIML R 49-2:2013.

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*

The content of this edition of ISO 4064-3 is the same in substance to the corresponding edition of OIML R 49-3 and OIML R 49-4, which has been issued concurrently. OIML R 49-3 and OIML R 49-4 were approved for final publication by the International Committee of Legal Metrology at its 58th meeting in xxxx in mm/yyyy. It will be submitted to the International Conference on Legal Metrology in yyyy for formal sanction.

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Introduction

Implementation of this test report format is informative with regard to the implementation of ISO 4064-1|OIML R 49-1 and ISO 4064-2|OIML R 49-2 in national regulations; however, its implementation is required within the framework of the OIML Certificate System for Measuring Instruments [ISO 4064-2:2014|OIML R 49-2:2013, 11.1].

[4](#) shows the required format of a type evaluation report for a complete or combined water meter.

A type evaluation report for a separable calculator (including indicating device) or a measurement transducer (including flow or volume sensor) requires a similar format. However, some modifications to the tables may be required because a large number of variations in the design of these separable units is possible.

Some examples of tables for presenting the test results for separable units are shown in [5](#) for initial verifications. These tables can also be adapted for type evaluation reports.

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Water meters for cold potable water and hot water —

Part 3: Test report format

1 Scope

This part of ISO 4064|OIML R 49 specifies a test report format to be used in conjunction with ISO 4064-1|OIML R 49-1 and ISO 4064-2|OIML R 49-2 for water meters for cold potable water and hot water.

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 4064-1, *Water meters for cold potable water and hot water — Part 1: Metrological and technical requirements*

ISO 4064-2, *Water meters for cold potable water and hot water — Part 2: Test methods*

3 Terms, definitions, symbols, and abbreviated terms

For the purposes of this document, the terms and definitions given in ISO 4064-1|OIML R 49-1 apply.

Some symbols and abbreviated terms used in the tables are as follows.

+	pass
–	fail
n/a	not applicable
EUT	equipment under test
H	horizontal
MAP	maximum admissible pressure
MAT	maximum admissible temperature
MPE	maximum permissible error
V	vertical

4 Type evaluation report

4.1 General

For each examination and test the checklist shall be completed according to this example:

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+	-	
×		Pass
	×	Fail
n/a	n/a	Not applicable

4.2 Information concerning the type

4.2.1 General

Application number: _____

Applicant: _____

Authorized representative: _____

Address: _____

Testing laboratory: _____

Authorized representative: _____

Address: _____

4.2.2 Model submitted

New model: _____

Variant of approved model(s):

Approval number: _____

Variation of approved model: _____

See [Table 1](#).

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Table 1 — Model submitted

Submitted for approval tests	Yes ^a	No ^a	Remarks
Mechanical water meter (complete)			
Mechanical water meter (combined)			
Electronic water meter (complete)			
Electronic water meter (combined)			
Family of water meters			
Separable calculator (including indicating device)			
Separable measurement transducer (including flow or volume sensor)			
Supplementary electronic device(s) for testing (permanently attached to meter)			
Supplementary electronic device(s) for data transmission (permanently attached to meter)			
Supplementary electronic device(s) for testing (temporarily attached to meter)			
Supplementary electronic device(s) for data transmission (temporarily attached to meter)			
Ancillary devices			

^{a)} Tick as appropriate.

4.2.3 Mechanical water meter (complete or combined)

Manufacturer: _____

Model number: _____

Type details:

Q_1 _____ m³/h

Q_2 _____ m³/h

Q_3 _____ m³/h

Q_4 _____ m³/h

Q_3/Q_1 _____

for combination meters

Q_{x1}	_____ m ³ /h
Q_{x2}	_____ m ³ /h
Measuring principle:	_____
Accuracy class:	_____
Temperature class:	_____
Environmental class:	_____
Electromagnetic environment:	_____
Maximum admissible temperature:	_____ °C
Maximum admissible pressure:	_____ MPa (_____ bar)

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Orientation limitation:	_____
Pressure loss class:	_____
Reverse flow:	
a) Meters designed to measure reverse flow	
b) Meters not designed to measure reverse flow	
c) Meters which prevent reverse flow	

EUT testing requirements (ISO 4064-2:2014|OIML R 49-2:2013, 8.1.8):

Category: _____

Case: _____

Installation details:

Connection type (flange, screw thread, concentric manifold): _____

Minimum straight length of inlet pipe: _____ mm

Minimum straight length of outlet pipe: _____ mm

Flow conditioner (details if required): _____

Mounting: _____

Orientation: _____

Other relevant information: _____

NOTE If a family of meters is submitted, the details in this subclause are to be given for each size of water meter.

4.2.4 Electronic water meter (complete or combined)

Manufacturer: _____

Model number: _____

Type details:

Q_1 _____ m³/h

Q_2 _____ m³/h

Q_3 _____ m³/h

Q_4 _____ m³/h

Q_3/Q_1 _____

Maximum sampling _____ s
interval in user mode:

for combination meters

	Q_{x1}	_____ m ³ /h
	Q_{x2}	_____ m ³ /h
	Measuring principle:	_____
	Accuracy class:	_____
	Temperature class:	_____
	Environmental class:	_____
	Electromagnetic environment:	_____
	Maximum admissible temperature:	_____ °C
	Maximum admissible pressure:	_____ MPa (_____ bar)
	Orientation limitation:	_____
	Pressure loss class:	
	Reverse flow:	
	a) Meters designed to measure reverse flow	
	b) Meters not designed to measure reverse flow	
	c) Meters which prevent reverse flow	
	Software version (if applicable):	

EUT testing requirements (ISO 4064-2:2014|OIML R 49-2:2013, 8.1.8):

Category: _____ oSIST prEN ISO 4064-3:2023

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Case: _____

Installation details (mechanical):

Connection type (flange, screw thread, _____
concentric manifold):

Minimum straight length of inlet pipe: _____ mm

Minimum straight length of outlet pipe: _____ mm

Flow conditioner (details if required): _____

Mounting: _____

Orientation: _____

Other relevant information: _____

Installation details (electrical):

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Wiring instructions: _____

Mounting arrangement: _____

Orientation limitations: _____

Power supply:

Type (battery, mains AC, mains DC): _____

 U_{\max} : _____ V U_{\min} : _____ V

Frequency: _____ Hz

NOTE If a family of meters is submitted, the details in this subclause are to be given for each size of water meter.

4.2.5 Separable calculator (including indicating device)

Manufacturer: _____

Model number: _____

Type details:

 Q_1 _____ m³/h Q_2 _____ m³/h Q_3 _____ m³/h Q_4 _____ m³/h Q_3/Q_1 _____

for combination meters

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	Q_{x1}	_____ m ³ /h
	Q_{x2}	_____ m ³ /h
Measuring principle:		_____
Accuracy class:		_____
Temperature class:		_____
Environmental class:		_____
Electromagnetic environment:		_____
Maximum admissible temperature:		_____ °C
Maximum admissible pressure:		_____ MPa (_____ bar)
Orientation limitation:		_____
Pressure loss class:		
Reverse flow:		