



BSI Standards Publication

Water meters for cold potable water and hot water

Part 3: Test report format

National foreword

This British Standard is the UK implementation of EN ISO 4064-3:2025. It is identical to ISO 4064-3:2024. It supersedes BS EN ISO 4064-3:2014, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee CPI/30/7, Volume flow-rate methods.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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English Version

Water meters for cold potable water and hot water - Part 3: Test report format (ISO 4064-3:2024)

Compteurs d'eau potable froide et d'eau chaude -
Partie 3: Format du rapport d'essai (ISO 4064-3:2024)

Wasserzähler zum Messen von kaltem Trinkwasser
und heißem Wasser - Teil 3: Format des Prüfberichtes
(ISO 4064-3:2024)

This European Standard was approved by CEN on 18 November 2024.

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

European foreword

This document (EN ISO 4064-3:2025) 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of an identical text or by endorsement, at the latest by July 2025, and conflicting national standards shall be withdrawn at the latest by July 2025.

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Endorsement notice

The text of ISO 4064-3:2024 has been approved by CEN as EN ISO 4064-3:2025 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).

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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 4064-3 cancels and replaces the fourth edition (ISO 4064-3:2014), which has been technically revised.

This edition of ISO 4064-3 is identical to the corresponding edition of OIML R 49-3 and OIML R49-4, which will be submitted for approval 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 2024 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.

Introduction

Implementation of this test report format is informative with regard to the implementation of ISO 4064-1:2024|OIML R 49-1:2024 and ISO 4064-2:2024|OIML R 49-2:2024 in national regulations; however, its implementation is required within the framework of the OIML Certificate System for Measuring Instruments [ISO 4064-2:2024|OIML R 49-2:2024, 11.1].

[Clause 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 [Clause 5](#) for initial verifications. These tables can also be adapted for type evaluation reports.

Water meters for cold potable water and hot water —

Part 3:

Test report format

1 Scope

This document specifies a test report format to be used in conjunction with ISO 4064-1:2024|OIML R 49-1:2024 and ISO 4064-2:2024|OIML R 49-2:2024 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 4064-1:2024|OIML R 49-1:2024, *Water meters for cold potable water and hot water — Part 1: Metrological and technical requirements*

ISO 4064-2:2024|OIML R 49-2:2024, *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:

+	–	
×		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](#).

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)

	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 4064-2:2024|OIML R 49-2:2024, 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: _____

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 interval in user mode: _____ s

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 4064-2:2024|OIML R 49-2:2024, 8.1.8):

Category: _____

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):

Wiring instructions: _____

Mounting arrangement: _____

Orientation limitations: _____

Power supply:

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

$U_{\max}$: _____ V

$U_{\min}$: _____ V

Frequency: _____ Hz

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

	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 4064-2:2024|OIML R 49-2:2024, 8.1.8):

Category: _____

Case: _____

Maximum relative error specified by the manufacturer:

Lower flow rate zone, $Q_1 \leq Q < Q_2$:	_____ %
Upper flow rate zone, $Q_2 \leq Q \leq Q_4$:	_____ %

Installation details (electrical):

Wiring instructions: _____

Mounting arrangement: _____

Orientation limitations: _____

Power supply:

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

$U_{\max}$: _____ V

$U_{\min}$: _____ V

Frequency: _____ Hz

Approval number(s) of compatible measurement transducer(s) (including flow or volume sensor): _____

4.2.6 Separable measurement transducer (including flow or volume sensor)

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)
	Orientation limitation:	_____

EUT testing requirements (ISO 4064-2:2024|OIML R 49-2:2024, 8.1.8):

Category: _____

Case: _____

Maximum relative error specified by the manufacturer:

Lower flow rate zone, $Q_1 \leq Q < Q_2$:	_____ %
Upper flow rate zone, $Q_2 \leq Q \leq Q_4$:	_____ %

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):

Wiring instructions: _____

Mounting arrangement: _____

Orientation limitations: _____

Power supply:

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

$U_{\max}$: _____ V

$U_{\min}$: _____ V

Frequency: _____ Hz

Approval number(s) of compatible calculator(s)
(including indicating device): _____

4.2.7 Supplementary electronic device(s) used for testing (permanently attached to meter)

Manufacturer: _____

Model number: _____

Power supply:

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

$U_{\max}$: _____ V

$U_{\min}$: _____ V

Frequency: _____ Hz

Installation details (electrical):

Wiring instructions: _____

Mounting arrangement: _____

Orientation limitations: _____

4.2.8 Supplementary electronic device(s) used for data transmission (permanently attached to meter)

Manufacturer: _____

Model number: _____

Power supply:

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

$U_{\max}$: _____ V

$U_{\min}$: _____ V

Frequency: _____ Hz

Installation details (electrical):

Wiring instructions: _____

Mounting arrangement: _____

Orientation limitations: _____

4.2.9 Supplementary electronic device(s) used for testing (temporarily attached to meter)

Manufacturer: _____

Model number: _____

Power supply:

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

$U_{\max}$: _____ V

$U_{\min}$: _____ V

Frequency: _____ Hz

Installation details (electrical):

Wiring instructions: _____

Mounting arrangement: _____

Orientation limitations: _____

4.2.10 Supplementary electronic device(s) used for data transmission (temporarily attached to meter)

Manufacturer: _____

Model number: _____

Power supply:

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

$U_{\max}$: _____ V

$U_{\min}$: _____ V

Frequency: _____ Hz

EUT testing requirements (ISO 4064-2:2024|OIML R 49-2:2024, 8.1.8):

Category: _____

Case: _____

Installation details (electrical):

Wiring instructions: _____

Mounting arrangement: _____

Orientation limitations: _____

4.2.11 Ancillary devices

Manufacturer: _____

Model number: _____

Power supply:

Type (battery, mains AC, mains DC):

$U_{\max}$:

V

$U_{\min}$:

V

Frequency:

Hz

Approval number(s) of compatible calculator(s)
(including indicating device):

EUT testing requirements (ISO 4064-2:2024|OIML R 49-2:2024, 8.1.8):

Category:

Case:

Installation details (electrical):

Wiring instructions:

Mounting arrangement:

Orientation limitations:

Approval number(s) of compatible water me-
ters, calculator(s) (including indicating device)
and measurement transducer(s) (including flow
or volume sensor):

4.2.12 Documents concerning the type

A list of documents in accordance with ISO 4064-1:2024|OIML R 49-1:2024, 7.2.9, shall be submitted with the type approval application as in [Annex A](#).

4.3 General information concerning the test equipment

Details of the main items of measuring equipment and test instruments used for the type examinations, or initial verifications are listed in [Table 2](#).

Table 2 — Listing of test equipment used in examinations and tests

Manufacturer	Model	Serial number	Used in performance test No. (ISO 4064-2:2024 OIML R 49-2:2024, subclause)	Comments

All calibration periods of test equipment used in examinations and tests listed above are in the quality system documentation of the test laboratory. Measurement equipment are traceable to the International System of Units.

4.4 Check list for water meter examinations and performance tests

4.4.1 Check list for water meter examinations

Table 3

External examination for all water meters				
ISO 4064-1:2024 OIML R 49-1:2024, subclause	Requirement	+	-	Remarks
Function of the indicating device				
6.7.1.1	The indicating device shall provide an easily read, reliable and unambiguous visual indication of the indicated volume			
6.7.1.1	The indicating device shall include visual means for testing and calibration.			
6.7.1.1	The indicating device may include additional elements for testing and calibration by other methods, e.g. for automatic testing and calibration			
Unit of measurement and its placement				
6.7.1.2	The indicated volume of water shall be expressed in cubic metres			
6.7.1.2	The symbol m ³ shall appear on the dial or immediately adjacent to the numbered display			
Indicating range				
6.7.1.3	For $Q_3 \leq 6,3$, the minimum indicating range is 0 m ³ to 9 999 m ³			
6.7.1.3	For $6,3 < Q_3 \leq 63$, the minimum indicating range is 0 m ³ to 99 999 m ³			
6.7.1.3	For $63 < Q_3 \leq 630$, the minimum indicating range is 0 m ³ to 999 999 m ³			
6.7.1.3	For $630 < Q_3 \leq 6\,300$, the minimum indicating range is 0 m ³ to 9 999 999 m ³			
Colour coding for indicating device				
6.7.1.4	The colour black should be used to indicate the cubic metre and its multiples			
6.7.1.4	The colour red should be used to indicate sub-multiples of a cubic metre			
6.7.1.4	The colours shall be applied to either the pointers, indexes, numbers, wheels, discs, dials or aperture frames			
6.7.1.4	Other means of indicating the cubic metre may be used provided there is no ambiguity in distinguishing between the primary indication and alternative displays, e.g. sub-multiples for verification and testing			
Types of indicating device: Type 1 — Analogue device				
6.7.2.1	The indicated volume shall be shown by continuous movement of either: a) one or more pointers moving relative to graduated scales; or b) one or more circular scales or drums each passing an index			
6.7.2.1	The value expressed in cubic metres for each scale division shall be of the form 10 ⁿ , where <i>n</i> is a positive or a negative whole number or zero, thereby establishing a system of consecutive decades.			

Table 3 (continued)

External examination for all water meters				
ISO 4064-1:2024 OIML R 49-1:2024, subclause	Requirement	+	–	Remarks
6.7.2.1	The scale shall be graduated in values expressed in cubic metres or accompanied by a multiplying factor ($\times 0,001$; $\times 0,01$; $\times 0,1$; $\times 1$; $\times 10$; $\times 100$; $\times 1\,000$ etc.)			
6.7.2.1	Rotational movement of the pointers or circular scales shall be clockwise			
6.7.2.1	Linear movement of pointers or scales shall be left to right			
6.7.2.1	Movement of numbered roller indicators shall be upwards			
Types of indicating device: Type 2 — Digital device				
6.7.2.2	The indicated volume is given by a line of digits appearing in one or more apertures			
6.7.2.2	The advance of one digit shall be completed while the digit of the next immediately lower decade changes from 9 to 0			
6.7.2.2	The apparent height of the digits shall be at least 4 mm			
6.7.2.2	For non-electronic devices, movement of numbered roller indicators (drums) shall be upwards			
6.7.2.2	For non-electronic devices, the lowest value decade may have a continuous movement, the aperture being large enough to permit a digit to be read without ambiguity			
6.7.2.2	For electronic devices with non-permanent displays the volume shall be able to be displayed at any time for at least 10 s			
6.7.2.2	For electronic devices, the meter shall provide visual checking of the entire display which shall have the following sequence: — for seven segment type displaying all the elements (e.g. an “eights” test); and — for seven segment type blanking all the elements (a “blanks” test). For graphical displays, an equivalent test is required to demonstrate that display faults cannot result in any digit being misinterpreted. Each step of the sequence shall last at least 1 s			
Types of indicating device: Type 3 — Combination of analogue and digital devices				
6.7.2.3	The indicated volume is given by a combination of type 1 and type 2 devices and the respective requirements of each shall apply			
Verification devices — General requirements				
6.7.3.1	Every indicating device shall provide means for visual, non-ambiguous verification testing and calibration			
6.7.3.1	The visual verification may have either a continuous or a discontinuous movement			
6.7.3.1	In addition to the visual verification display, an indicating device may include provisions for rapid testing by the inclusion of complementary elements (e.g. star wheels or discs), providing signals through externally attached sensors.			
Verification devices — Visual verification displays				
6.7.3.2.1	The value of the verification scale interval, expressed in cubic metres, shall be of the form: 1×10^n , 2×10^n or 5×10^n , where n is a positive or negative whole number, or zero			
6.7.3.2.	The indicated volume is given by a line of digits appearing in one or more apertures			

Table 3 (continued)

External examination for all water meters				
ISO 4064-1:2024 OIML R 49-1:2024, subclause	Requirement	+	–	Remarks
6.7.3.2.1	For analogue or digital indicating devices with continuous movement of the first element, the verification scale interval may be formed from the division into 2, 5 or 10 equal parts of the interval between two consecutive digits of the first element. Numbering shall not be applied to these divisions			
6.7.3.2.1	For digital indicating devices with discontinuous movement of the first element, the verification scale interval is the interval between two consecutive digits or incremental movements of the first element			
6.7.3.2.2	On indicating devices with continuous movement of the first element, the apparent scale spacing shall be not less than 1 mm and not more than 5 mm			
6.7.3.2.2	The scale shall consist of either: a) lines of equal thickness not exceeding one quarter of the scale spacing and differing only in length; or b) contrasting bands of a constant width equal to the scale spacing			
6.7.3.2.2	The apparent width of the pointer at its tip shall not exceed one-quarter of the scale spacing and in no case shall it be greater than 0,5 mm			
Resolution of the indicating device				
6.7.3.2.3	The sub-divisions of the verification scale shall be small enough to ensure that the resolution of the indicating device does not exceed 0,25 % of the actual volume for accuracy class 1 meters, and 0,5 % of the actual volume for accuracy class 2 meters, for a 90 min test at the minimum flow rate, Q_1 . NOTE 1 When the display of the first element is continuous, an allowance should be made for a maximum error in each reading of not more than half of the verification scale interval. NOTE 2 When the display of the first element is discontinuous, an allowance should be made for a maximum error in each reading of not more than one digit of the verification scale			
For combination meters with two indicating devices, the above requirements apply to both indicating devices.				
Marks and inscriptions				
6.6.1	A place shall be provided on the meter for affixing the verification mark, which shall be visible without dismantling the meter			
6.6.2	The water meter shall be clearly and indelibly marked with the information listed in the following, either grouped or distributed on the casing, the indicating device dial, an identification plate or on the meter cover if it is not detachable			
6.6.2 a)	Unit of measurement: cubic metre			
6.6.2 b)	The accuracy class, where it differs from accuracy class 2			
6.6.2 c)	The numerical value of Q_3 and the ratio Q_3/Q_1 (may be preceded by R). If the meter measures reverse flow and Q_3 and the ratio Q_3/Q_1 are different in the two directions, both values of Q_3 and Q_3/Q_1 shall be inscribed; the direction of flow to which each pair of values refers shall be clear. If the meter has different values of Q_3/Q_1 in horizontal and vertical positions, both values of Q_3/Q_1 shall be inscribed, and the orientation to which each value refers shall be clear			

Table 3 (continued)

External examination for all water meters				
ISO 4064-1:2024 OIML R 49-1:2024, subclause	Requirement	+	–	Remarks
6.6.2 d)	The type approval sign according to national regulations			
6.6.2 e)	The name or trademark of the manufacturer			
6.6.2 f)	The year of manufacture (or the last two digits of the year of manufacture or the month and year of manufacture)			
6.6.2 g)	The serial number (as near as possible to the indicating device)			
6.6.2 h)	The direction of flow (shown on both sides of the body; or on one side only, provided the direction of flow arrow is easily visible under all circumstances)			
6.6.2 i)	The maximum admissible pressure (MAP) if it exceeds 1 MPa (10 bar) or 0,6 MPa (6 bar) for nominal diameter ≥ 500 mm. (The unit bar may be used where national regulations permit)			
6.6.2 j)	The letter V or H, if the meter can only be operated in the vertical or horizontal position			
6.6.2 k)	The temperature class where it differs from T30			
6.6.2 l)	The pressure loss class where it differs from Δp 63			
6.6.2 m)	The installation sensitivity class where it differs from U0/D0			
Additional markings for water meters with electronic devices				
6.6.2 n)	For an external power supply: the voltage and frequency			
6.6.2 o)	For a replaceable battery: the latest date by which the battery shall be replaced			
6.6.2 p)	For a non-replaceable battery: the latest date by which the meter shall be replaced			
6.6.2 q)	Environmental classification			
6.6.2 r)	Electromagnetic environmental class			
Protection devices				
6.8.1	Water meters shall include protection devices which can be sealed so as to prevent, both before and after correct installation of the water meter, dismantling or modification of the meter, its adjustment device or its correction device, without damaging these devices. In the case of combination meters, this requirement applies to both meters			
Protection devices — Electronic sealing devices				
6.8.2.1	When access to parameters that influence the determination of the results of measurements is not protected by mechanical sealing devices, the protection shall fulfil the following provisions. a) Access shall only be allowed to authorized people, e.g. by means of a code (password) or of a special device (hard key, etc.). The code shall be capable of being changed. b) It shall be possible for at least the last intervention to be memorized. The record shall include the date and a characteristic element identifying the authorized person making the intervention [see a)]. If it is possible to memorize more than one intervention and if a previous intervention requires deletion to permit a new record, the oldest record shall be deleted			

Table 3 (continued)

External examination for all water meters				
ISO 4064-1:2024 OIML R 49-1:2024, subclause	Requirement	+	–	Remarks
6.8.2.2	For meters with parts which can be disconnected one from another by the user and which are interchangeable, the following provisions shall be fulfilled: a) it shall not be possible to access parameters that participate in the determination of results of measurements through disconnected points unless the provisions of ISO 4064-1:2024 OIML R 49-1:2024, 6.8.2.1 are fulfilled; b) interposing any device which may influence the accuracy shall be prevented by means of electronic and data processing securities or, if this is not possible, by mechanical means			
6.8.2.3	For meters with parts which may be disconnected one from the other by the user and which are not interchangeable, the provisions in ISO 4064-1:2024 OIML R 49-1:2024, 6.8.2.2 apply. Moreover, these meters shall be provided with devices which do not allow them to operate if the various parts are not connected according to the approved type. Disconnections which are not allowed to the user may be prevented, e.g. by means of a device that prevents any measurement after disconnecting and reconnecting			
Examination and testing of checking facilities				
General requirements for examining checking facilities				
5.1.3	Water meters with electronic devices shall be provided with the checking facilities specified in ISO 4064-1:2024 OIML R 49-1:2024, Annex B, except in the case of non-resettable measurements between two constant partners			
5.1.3	All meters equipped with checking facilities shall prevent or detect reverse flow, as laid down in ISO 4064-1:2024 OIML R 49-1:2024, 4.2.7.			

4.4.2 Checklist for water meter performance tests

4.4.2.1 Performance tests for all water meters

Table 4

ISO 4064-1:2024 OIML R 49-1:2024, subclause	Requirement	+	–	Remarks
Static pressure test				
4.2.10	The meter shall be capable of withstanding the following test pressures without leakage or damage: — 1,6 times the maximum admissible pressure for 15 min; — 2 times the maximum admissible pressure for 1 min			
Intrinsic errors (of indication)				