SLOVENSKI STANDARD
SIST EN 18069:2026

01-junij-2026

Kakovost vode - Minimalne zahteve za izbiro, namestitev, validacijo in delovanje merilnikov za kontinuirano merjenje

Water quality - Minimum requirements for the selection, installation, validation, and operation of continuous measuring devices

Richtlinien für die Installation und betriebliche Implementierung von kontinuierlichen Messsystemen

Qualité de l'eau - Exigences minimales pour l'installation, la mise en service, la maintenance et la mise en œuvre opérationnelle de dispositifs de mesure en continu

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ICS:

13.060.45	Preiskava vode na splošno	Examination of water in general

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EUROPEAN STANDARD

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English Version

Water quality - Minimum requirements for the selection, installation, validation, and operation of continuous measuring devices

Qualité de l'eau - Exigences minimales pour le choix, l'installation, la validation et l'exploitation de dispositifs de mesure en continu

Wasserbeschaffenheit - Mindestanforderungen für die Auswahl, Installation, Validierung und den Betrieb von kontinuierlichen Messgeräten

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

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Contents

Page

European foreword

This document (EN 18069:2026) has been prepared by Technical Committee CEN/TC 230 “Water analysis”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by October 2026, and conflicting national standards shall be withdrawn at the latest by October 2026.

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.

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Introduction

The continuous monitoring of water quality parameters can provide real time information on temporal variability compared with sampling campaigns conducted at fixed intervals which can miss significant events such as a concentration peak during a flood or rainfall episode.

Moreover, in the event of pollution due to industrial accidents or transport on inland waterways for example, it is vital to be able to detect these events as early as possible and react rapidly to limit their impacts on the environment and possible drinking water resources.

Consequently, the choice of having recourse to continuous measuring devices (CMDs) is directly linked to the advantages of obtaining a rapid measurement (a few seconds to a few minutes) at short time intervals (from a few seconds to a few hours) and in most cases in real time. Furthermore, it is possible to use the resulting measurements to automatically trigger actions, such as taking a sample for further analysis and/or stopping pumping of a drinking water resource.

This document is associated with EN 17075 which specifies general requirements and performance test procedures for portable and fixed position continuous measuring devices that are used in an in-line or on-line operating position to measure physical and chemical measurands in water.

Continuous measuring devices are widely used for compliance monitoring purposes under national and European regulations.

1 Scope

This document specifies requirements for the selection, installation, validation, and operation of continuous measuring devices CMDs as follows:

1) Selection: defining the user requirements, the purposes of the required measurements, associated data quality requirements, and choice of CMDs.

2) Installation: verifying a complete and correct delivery of the procured CMD and verifying a correctly functioning on-site installation, operation and communication of the CMD.

3) Validation: verifying that the correctly installed CMD meets all of the original defined user requirements.

4) Operation: implementing operating and maintenance procedures, processing of data and document traceability.

The overall objective is to obtain representative and reliable measurements when using CMDs to monitor water quality.

This document is applicable to CMDs for monitoring physical and chemical parameters in different types of 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.

EN 17075:2018+A1:2023, *Water quality — General requirements and performance test procedures for water monitoring equipment — Continuous measuring devices*

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
continuous measuring device
CMD
component or a group of components, used in an in-line or on-line operating position, which continuously (or at a given frequency) gives an output signal proportional to the value of one or more measurands in waters which it measures

Note 1 to entry: The device can be portable or fixed in position.

[SOURCE: EN 17075:2018+A1:2023, 3.1]

3.2
sensor
electronic device that senses a physical condition or chemical compound and delivers an electronic signal proportional to the observed characteristic

[SOURCE: EN 17075:2018+A1:2023, 3.4]

3.3
in-line continuous measuring device
in-situ continuous measuring device
system of automatic measurement in which at least the sensor is sited in the body of water

[SOURCE: EN 17075:2018+A1:2023, 3.5]

3.4
on-line continuous measuring device
system of automatic measurement in which the sample is taken from the body of water by means of an appropriate conduit to the CMD

Note 1 to entry: Sometimes referred to as an extractive continuous measuring device.

[SOURCE: EN 17075:2018+A1:2023, 3.6 modified – "through a probe to the measuring device" added, "to the CMD" added at the end, Note to entry 1 "continuous" added]

3.5
measuring point
geographical location at which the measurement is taken

3.6
outlier
member of a set of values which is inconsistent with the other members of that set

[SOURCE: ISO 5725-1:2023, 3.7 modified – "value from" replaced by "member of", "identified by a statistical test" deleted, Note to entry has been deleted]

3.7
reference method
method, material or device to be used to obtain the measurand value of the test waters, against which the readings from the CMD used can be compared

[SOURCE: EN 17075:2018+A1:2023, 3.26 modified – "material or device " added, "under test" replace by "used"]

3.8
calibration
operation that, under specified conditions, in a first step, establishes a relation between the quantity values with measurement uncertainties provided by measurement standards and corresponding indications with associated measurement uncertainties and, in a second step, uses this information to establish a relation for obtaining a measurement result from an indication

Note 1 to entry: A calibration may be expressed by a statement, calibration function, calibration diagram, calibration curve, or calibration table. In some cases, it may consist of an additive or multiplicative correction of the indication with associated measurement uncertainty.