

STN	Kvalita vody. Prevádzkové požiadavky a postupy posudzovania zhody na zariadenia na monitorovanie vody. Časť 1: Automatizované vzorkovacie zariadenia (vzorkovače) na vodu a odpadovú vodu.	STN EN 16479 75 7020
------------	---	--

Water quality - Performance requirements and conformity test procedures for water monitoring equipment - Automated sampling devices (samplers) for water and waste water

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 11/14

Obsahuje: EN 16479:2014

119854

Úrad pre normalizáciu, metrológiu a skúšobníctvo SR, odbor SÚTN, 2014
Podľa zákona č. 264/1999 Z. z. v znení neskorších predpisov sa môžu slovenské technické normy rozmnožovať a rozširovať iba so súhlasom Úradu pre normalizáciu, metrológiu a skúšobníctvo SR.

EUROPEAN STANDARD

EN 16479

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2014

ICS 13.060.45

English Version

Water quality - Performance requirements and conformity test procedures for water monitoring equipment - Automated sampling devices (samplers) for water and waste water

Qualité de l'eau - Exigences de performance et modes opératoires d'essai de conformité pour les équipements de surveillance de l'eau - Dispositifs d'échantillonnage automatiques (échantillonneurs) pour l'eau et les eaux usées

Wasserbeschaffenheit - Leistungsanforderungen und Konformitätsprüfungen für Geräte zum Wassermonitoring - Automatische Probenahmegeräte für Wasser und Abwasser

This European Standard was approved by CEN on 22 May 2014.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

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.

CEN members are the national standards bodies of 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 United Kingdom.



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

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

Contents

Page

Foreword	3
Introduction	4
1 Scope.....	5
2 Normative References	5
3 Terms and definitions.....	5
4 General requirements for samplers	7
5 Performance requirements	9
5.1 Sample volume.....	9
5.2 Sampling principles	9
5.3 Sample line velocity.....	10
5.4 Power supply.....	10
5.5 Sample integrity	10
5.6 Sample timing error	10
5.7 Effect of ambient air temperature.....	10
6 Conformity testing	11
6.1 General requirements	11
6.2 Test conditions.....	11
6.3 Verification by inspection	12
6.4 Performance tests	12
Annex A (normative) Evaluation of conformity test data.....	19
A.1 Sample volume error	19
A.2 Sample line velocity.....	21
A.3 Sample integrity	21
A.3.1 Calculation of results based on the analysis of variance.....	21
A.3.2 Notation.....	21
A.3.3 Calculations	22
A.3.4 Interpretation of the results	23
A.4 Sampler timing error.....	25
A.5 Ambient air temperature effects	25
Annex B (informative) Example procedure for demonstrating sample integrity for samplers to be used for Urban Waste Water Treatment Directive (UWWTD) sampling	27
B.1 General	27
B.2 Test fluid	27
B.3 Sample collection.....	27
B.4 Sample volume	28
B.5 Sample integrity	28
B.6 Determination of conformance.....	28
Annex C (informative) Example format for the report.....	29
Bibliography	31

Foreword

This document (EN 16479:2014) 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 January 2015, and conflicting national standards shall be withdrawn at the latest by January 2015.

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 was submitted to the Formal Vote with the reference FprEN 16479-1.

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.

Introduction

This European Standard is a product standard for automated sampling devices (samplers) for water and waste water. It defines general requirements, performance requirements, and procedures for the conformity testing of samplers. Samplers that are shown, by means of the tests, to conform with the specified requirements are considered to be fit for purpose. However, this European Standard does not cover the installation and on-going use of samplers.

The requirements of this European Standard are intended to be independent of measurement technology and applicable to all automated sampling devices.

Water monitoring equipment is widely used for compliance monitoring purposes under national and European regulations. This European standard supports the requirements of the following EU Directives:

- Industrial Emissions Directive (2010/75/EU) [6].
- Urban Waste Water Treatment Directive (UWWTD) (91/271/EEC and 98/15/EEC) [7].
- Water Framework Directive (2000/60/EC) [8].
- Marine Strategy Framework Directive (2008/56/EC) [9].

1 Scope

This European Standard defines general requirements, performance requirements and conformity test procedures for automated sampling devices (samplers) for water and waste water that:

- sample water and waste water from non-pressurized (i. e. open to atmosphere) channels or vessels;
- sample over extended periods to collect discrete or composite samples based on time, event or flow proportional sampling.

Specific sample integrity requirements are defined for samplers to be used for the collection of samples of final effluent or influent for the purpose of monitoring the performance of waste water treatment works, as required under the Urban Waste Water Treatment Directive (UWWTD). Samplers to be used for other industrial applications do not have to be assessed against these specific sample integrity requirements.

This European Standard does not cover the installation and on-going use of samplers.

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.

EN ISO 5667-3:2012, *Water quality - Sampling - Part 3: Preservation and handling of water samples (ISO 5667-3:2012)*

EN ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories (ISO/IEC 17025)*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN