

Hydrometry - Measurement of liquid flow in open channels using current-meters or floats

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EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN ISO 748:2007 sisaldab Euroopa standardi EN ISO 748:2007 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 22.11.2007 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN ISO 748:2007 consists of the English text of the European standard EN ISO 748:2007.</p> <p>This document is endorsed on 22.11.2007 with the notification being published in the official publication of the Estonian national standardisation organisation.</p> <p>The standard is available from Estonian standardisation organisation.</p>
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<p>Käsitlusala: This International Standard specifies methods for determining the velocity and cross-sectional area of water flowing in open channels without ice cover, and for computing the discharge therefrom. It covers methods of employing current-meters or floats to measure the velocities. It should be noted that although, in some cases, these measurements are intended to determine the stage-discharge relation of a gauging station, this International Standard deals only with single measurements of the discharge; the continuous recording of discharges over a period of time is covered in ISO 1100-1 and ISO 1100-2. NOTE The methods for determining the velocity and cross-sectional area of water flowing in open channels with ice cover are specified in ISO 9196.</p>	<p>Scope: This International Standard specifies methods for determining the velocity and cross-sectional area of water flowing in open channels without ice cover, and for computing the discharge therefrom. It covers methods of employing current-meters or floats to measure the velocities. It should be noted that although, in some cases, these measurements are intended to determine the stage-discharge relation of a gauging station, this International Standard deals only with single measurements of the discharge; the continuous recording of discharges over a period of time is covered in ISO 1100-1 and ISO 1100-2. NOTE The methods for determining the velocity and cross-sectional area of water flowing in open channels with ice cover are specified in ISO 9196.</p>
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Võtmesõnad:

English Version

Hydrometry - Measurement of liquid flow in open channels using
current-meters or floats (ISO 748:2007)

Hydrométrie - Mesurage du débit des liquides dans les
canaux découverts au moyen de débitmètres ou de
flotteurs (ISO 748:2007)

Hydrometrie - Durchflussmessung in offenen Gerinnen
mittels Fließgeschwindigkeitsmessgeräten oder
Schwimmern (ISO 748:2007)

This European Standard was approved by CEN on 21 September 2007.

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Foreword

This document (EN ISO 748:2007) has been prepared by Technical Committee ISO/TC 113 "Hydrometric determinations" in collaboration with Technical Committee CEN/TC 318 "Hydrometry" the secretariat of which is held by BSI.

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 April 2008, and conflicting national standards shall be withdrawn at the latest by April 2008.

This document supersedes EN ISO 748:2000.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland and the United Kingdom.

Endorsement notice

The text of ISO 748:2007 has been approved by CEN as a EN ISO 748:2007 without any modification.

**Hydrometry — Measurement of liquid
flow in open channels using current-
meters or floats**

*Hydrométrie — Mesurage du débit des liquides dans les canaux
découverts au moyen de débitmètres ou de flotteurs*



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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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.

ISO 748 was prepared by Technical Committee ISO/TC 113, *Hydrometry*, Subcommittee SC 1, *Velocity area methods*.

This fourth edition cancels and replaces the third edition (ISO 748:1997), which has been technically revised.

Hydrometry — Measurement of liquid flow in open channels using current-meters or floats

1 Scope

This International Standard specifies methods for determining the velocity and cross-sectional area of water flowing in open channels without ice cover, and for computing the discharge therefrom.

It covers methods of employing current-meters or floats to measure the velocities. It should be noted that although, in some cases, these measurements are intended to determine the stage-discharge relation of a gauging station, this International Standard deals only with single measurements of the discharge; the continuous recording of discharges over a period of time is covered in ISO 1100-1 and ISO 1100-2.

NOTE The methods for determining the velocity and cross-sectional area of water flowing in open channels with ice cover are specified in ISO 9196.

2 Normative references

The following referenced documents are indispensable for the application 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 772, *Hydrometric determinations — Vocabulary and symbols*

ISO 1088, *Hydrometry — Velocity-area methods using current-meters — Collection and processing of data for determination of uncertainties in flow measurement*

ISO 2537, *Hydrometry — Rotating-element current-meters*

ISO 3455, *Hydrometry — Calibration of current-meters in straight open tanks*

ISO/TS 15768, *Measurement of liquid velocity in open channels — Design, selection and use of electromagnetic current meters*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 772 apply.

4 Principle of the methods of measurements

4.1 The principle of these methods consists of determining velocity and cross-sectional area. A measuring site is chosen conforming to the specified requirements (see Clause 5); the width, depending on its magnitude, is measured either by means of steel tape or by some other surveying method, and the depth is measured at a number of points (known as verticals) across the width, sufficient to determine the shape and area of the cross-section (see Clause 6).