

**Sukeldumistarvikud. Sügavusmõõturid
ja kombineeritud sügavuse- ja
ajamõõteseadmed. Funktsionaalsed ja
ohutusnõuded, katsemeetodid**

Diving accessories - Depth gauges and combined
depth and time measuring devices - Functional and
safety requirements, test methods

EESTI STANDARDI EESSÕNA

NATIONAL FOREWORD

<p>Käesolev Eesti standard EVS-EN 13319:2000 sisaldab Euroopa standardi EN 13319:2000 ingliskeelset teksti.</p> <p>Käesolev dokument on jõustatud 12.09.2000 ja selle kohta on avaldatud teade Eesti standardiorganisatsiooni ametlikus väljaandes.</p> <p>Standard on kättesaadav Eesti standardiorganisatsioonist.</p>	<p>This Estonian standard EVS-EN 13319:2000 consists of the English text of the European standard EN 13319:2000.</p> <p>This document is endorsed on 12.09.2000 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 standard specifies functional and safety requirements for depth gauges, depth gauge features of other instruments, and both depth and time measurement features of other instruments. It is not applicable to any information displayed to the user besides depth and time. Any information on decompression obligations displayed by equipment covered by this standard is explicitly excluded from its scope. This standard is applicable to instruments measuring water depth by the environmental pressure as used by divers. Requirements for time measurement are only applicable if instruments are automatically counting the diving time.</p>	<p>Scope: This standard specifies functional and safety requirements for depth gauges, depth gauge features of other instruments, and both depth and time measurement features of other instruments. It is not applicable to any information displayed to the user besides depth and time. Any information on decompression obligations displayed by equipment covered by this standard is explicitly excluded from its scope. This standard is applicable to instruments measuring water depth by the environmental pressure as used by divers. Requirements for time measurement are only applicable if instruments are automatically counting the diving time.</p>
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ICS 97.220.40

Võtmesõnad:

ICS 97.220.40

English version

Diving accessories – Depth gauges and combined
depth and time measuring devices

Functional and safety requirements, test methods

Accessoires de plongée –
Profondimètres et instruments
combinant la mesure de la profondeur
et du temps – Exigences
fonctionnelles et de sécurité,
méthodes d'essai

Tauch-Zubehör – Tiefenmesser
und kombinierte Tiefen- und
Zeitmessgeräte – Funktionelle und
sicherheitstechnische Anforderungen,
Prüfverfahren

This European Standard was approved by CEN on 2000-01-20.

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Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

The European Standards exist 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 Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

CEN

European Committee for Standardization
Comité Européen de Normalisation
Europäisches Komitee für Normung

Central Secretariat: rue de Stassart 36, B-1050 Brussels

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Foreword

This European Standard has been prepared by Technical Committee CEN/TC 136 "Sports, playground and other recreational equipment", 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 September 2000, and conflicting national standards shall be withdrawn at the latest by September 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

1 Scope

This standard specifies functional and safety requirements for depth gauges, depth gauge features of other instruments, and both depth and time measurement features of other instruments.

This standard is not applicable to any information displayed to the user besides depth and time. Any information on decompression obligations displayed by equipment covered by this standard is explicitly excluded from its scope.

This standard is applicable to instruments measuring water depth by the environmental pressure as used by divers. Requirements for time measurement are only applicable if instruments are automatically counting the dive time.

2 Normative reference

This European Standard incorporates, by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references, the latest edition of the publication referred to applies.

ISO 1413
Horology – Shock-resistant watches

3 Definitions

For the purposes of this standard, the following definition applies:

3.1 dive time: Time spent under overpressure, measured between the limits given in 4.2.1 and 4.2.2.

4 Requirements

4.1 Depth measurement

4.1.1 Gauge factor for the transformation from pressure to depth

The gauge factor shall be such that an increase of pressure of 1 bar would cause an increase in the depth displayed of 10 m.

NOTE: This rule assumes a water density of 1,0197 kg/l, i.e., in fresh water of 1,00 kg/l the geometric depth is 102 % of the display while in sea water of a density of 1,03 kg/l the geometric depth is 99 % of the display. Since the physiological relevant figure is the environmental pressure only, the geometric depth is of much inferior relevance for the diver.

4.1.2 Accuracy of depth measurement

The display of the depth within the depth range specified by the manufacturer shall correspond to the values given in table 1 after testing in accordance with 5.1 and 5.3.8.

If the maximum depth specified by the manufacturer is deeper than 60 m, the values of table 1 have to be extended to this specified depth in increments of 15 m and in test pressure increments of 150 kPa with constant error margins of $\left(\begin{smallmatrix} +10 \\ -15 \end{smallmatrix} \right)$ kPa.