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| STN | Akustika v kvapalinách Hydrofóny Vlastnosti hydrofónov vo frekvenčnom rozsahu 1 Hz až 500 kHz | STN EN 60500 34 0880 |
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Underwater acoustics - Hydrophones - Properties of hydrophones in the frequency range 1 Hz to 500 kHz

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. 01/18

Obsahuje: EN 60500:2017, IEC 60500:2017

Oznámením tejto normy sa od 15.05.2020 ruší
STN IEC 60500 (34 0880) z novembra 1993

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Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2018
Podľa zákona č. 264/1999 Z. z. o technických požiadavkách na výrobky a o posudzovaní zhody a o zmene a doplnení niektorých zákonov v znení neskorších predpisov sa slovenská technická norma a časti slovenskej technickej normy môžu rozmnožovať alebo rozširovať len so súhlasom slovenského národného normalizačného orgánu.

EUROPEAN STANDARD

EN 60500

NORME EUROPÉENNE

EUROPÄISCHE NORM

July 2017

ICS 17.140.50

English Version

Underwater acoustics - Hydrophones -
Properties of hydrophones in the frequency range
1 Hz to 500 kHz
(IEC 60500:2017)

Acoustique sous-marine - Hydrophones -
Propriétés des hydrophones dans la bande de fréquences
de 1 Hz à 500 kHz
(IEC 60500:2017)

Unterwasserakustik - Hydrophone -
Eigenschaften von Hydrophonen im Frequenzbereich
von 1 Hz bis 500 kHz
(IEC 60500:2017)

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

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

European foreword

The text of document 87/644/FDIS, future edition 2 of IEC 60500, prepared by IEC/TC 87 "Ultrasonics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 60500:2017.

The following dates are fixed:

- latest date by which the document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2018-02-15
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In the official version, for Bibliography, the following notes have to be added for the standards indicated:

| | | |
|-------------------------------|------|---|
| IEC 60565:2006 | NOTE | Harmonized as EN 60565:2007 (not modified). |
| IEC 62127-3:2007 + A1:2013 | NOTE | Harmonized as EN 62127-3:2007 (not modified) + A1:2013 (not modified). |

Annex ZA

(normative)

Normative references to international publications with their corresponding European publications

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.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

| <u>Publication</u> | <u>Year</u> | <u>Title</u> | <u>EN/HD</u> | <u>Year</u> |
|--------------------|-------------|-----------------------------------|--------------|-------------|
| ISO 266 | 1997 | Acoustics - Preferred frequencies | EN ISO 266 | 1997 |



IEC 60500

Edition 2.0 2017-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Underwater acoustics – Hydrophones – Properties of hydrophones in the frequency range 1 Hz to 500 kHz

Acoustique sous-marine – Hydrophones – Propriétés des hydrophones dans la bande de fréquences de 1 Hz à 500 kHz



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IEC 60500

Edition 2.0 2017-04

INTERNATIONAL STANDARD

NORME INTERNATIONALE

Underwater acoustics – Hydrophones – Properties of hydrophones in the frequency range 1 Hz to 500 kHz

Acoustique sous-marine – Hydrophones – Propriétés des hydrophones dans la bande de fréquences de 1 Hz à 500 kHz

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ELECTROTECHNICAL
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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**UNDERWATER ACOUSTICS – HYDROPHONES – PROPERTIES OF
HYDROPHONES IN THE FREQUENCY RANGE 1 Hz TO 500 kHz**

FOREWORD

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International Standard IEC 60500 has been prepared by IEC technical committee 87: Ultrasonics.

This second edition cancels and replaces the first edition published in 1974. This edition constitutes a technical revision.

This edition includes the following significant technical changes with respect to the previous edition.

- a) The format and scope of IEC 60500 have been changed to be compatible with IEC 62127-3:2007 in accordance with ISO/IEC Directives, and has a good conformity with IEC 60565:2006, making the suite of available standards for underwater sound a more coordinated and coherent system.
- b) The upper limit of the frequency range of hydrophones has been expanded from 100 kHz to 500 kHz.
- c) Technical requirements of hydrophone selecting are provided in Annex A, and the depth range of the static pressure range of hydrophones has been expanded from 10 m to 100 m.

The text of this International Standard is based on the following documents:

| | |
|-------------|------------------|
| FDIS | Report on voting |
| 87/644/FDIS | 87/649/RVD |

Full information on the voting for the approval of this International Standard can be found in the report on voting indicated in the above table.

This document has been drafted in accordance with the ISO/IEC Directives, Part 2.

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- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

UNDERWATER ACOUSTICS – HYDROPHONES – PROPERTIES OF HYDROPHONES IN THE FREQUENCY RANGE 1 Hz TO 500 kHz

1 Scope

This document specifies the relevant characteristics and properties of hydrophones in the frequency range 1 Hz to 500 kHz, and specifies how to report these characteristics. It does not cover performance requirements for specific hydrophone types, or for specific hydrophone applications. However, guidance on the choice of a hydrophone with appropriate performance for a specific application is given in an informative annex.

This document is applicable to:

- hydrophones employing piezoelectric sensor elements, designed to respond to sound pressure in water and measure underwater acoustical signals;
- hydrophones with or without an integral pre-amplifier.

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 266:1997, *Acoustics – Preferred frequencies*

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