SLOVENSKI STANDARD
SIST EN 62127-3:2008/A1:2013

01-oktober-2013

Ultrazvok - Hidrofoni - 3. del: Lastnosti hidrofonov za ultrazvočna polja do 40 MHz

Ultrasonics - Hydrophones - Part 3: Properties of hydrophones for ultrasonic fields up to 40 MHz

Ultraschall - Hydrophone - Teil 3: Eigenschaften von Hydrophonen zur Verwendung in Ultraschallfeldern bis zu 40 MHz

Ultrasons - Hydrophones - Partie 3: Propriétés des hydrophones pour les champs ultrasonores jusqu'à 40 MHz

Ta slovenski standard je istoveten z: **EN 62127-3:2007/A1:2013**

ICS:

11.040.01	Medicinska oprema na splošno	Medical equipment in general
17.140.50	Elektroakustika	Electroacoustics

SIST EN 62127-3:2008/A1:2013 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 62127-3/A1

August 2013

ICS 17.140.50

English version

Ultrasonics - Hydrophones - Part 3: Properties of hydrophones for ultrasonic fields up to 40 MHz

(IEC 62127-3:2007/A1:2013)

Ultrasons - Hydrophones - Partie 3: Propriétés des hydrophones pour les champs ultrasonores jusqu'à 40 MHz (CEI 62127-3:2007/A1:2013)

Ultraschall - Hydrophone - Teil 3: Eigenschaften von Hydrophonen zur Verwendung in Ultraschallfeldern bis zu 40 MHz (IEC 62127-3:2007/A1:2013)

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CENELEC

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

Management Centre: Avenue Marnix 17, B - 1000 Brussels

Ref. No. EN 62127-3:2007/A1:2013 E

Foreword

The text of document 87/530/FDIS, future IEC 62127-3:2007/A1, prepared by IEC/TC 87 "Ultrasonics" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 62127-3:2007/A1:2013.

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)	2014-04-02
• latest date by which the national standards conflicting with the document have to be withdrawn	(dow)	2016-07-02

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Endorsement notice

The text of the International Standard IEC 62127-3:2007/A1:2013 was approved by CENELEC as a European Standard without any modification.

IEC 62127-3

Edition 1.0 2013-05

INTERNATIONAL STANDARD

NORME INTERNATIONALE

AMENDMENT 1
AMENDEMENT 1

Ultrasonics – Hydrophones –
Part 3: Properties of hydrophones for ultrasonic fields up to 40 MHz

Ultrasons – Hydrophones –
Partie 3: Propriétés des hydrophones pour les champs ultrasoniques jusqu'à 40 MHz

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FOREWORD

This amendment has been prepared by IEC technical committee 87: Ultrasonics.

The text of this amendment is based on the following documents:

FDIS	Report on voting
87/530/FDIS	87/535/RVD

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

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the stability date indicated on the IEC web site under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

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

Replace throughout the document:
“non-linear” by “nonlinear”,
This replacement applies to the English text only.

Replace throughout the document:
“non-linearities” by “nonlinearities”
This replacement applies to the English text only.

5 Hydrophone characteristics

5.1 General

Add to the existing text the following new note:

NOTE Determination methods are covered in IEC 62127-2.

5.5.1 General

Replace, in the third sentence of the first paragraph, the existing phrase "...at the geometric mean of the lower and upper frequency limits, and ..." by the following new phrase:

"... at a frequency which agrees within ± 15 % with the geometric mean of the lower and upper frequency limits, and at a frequency ...".

5.7 Dynamic range, linearity and electromagnetic interference

*Replace, in the final paragraph, the word "*shall*" by "*should*".*

5.8 Electric output characteristics

5.8.1 General

Replace the existing title of this subclause by the following:

5.8.1 Hydrophone without pre-amplifier

In the first paragraph, delete the words "... or **hydrophone assembly** ..."

5.8.2 Hydrophone without pre-amplifier

Delete this title

5.8.3 Hydrophone assembly

Delete, at the end of this subclause, the following phrase:

"... in accordance with equation (4)"

Replace number of subclause by 5.8.2

5.8.4 Output lead configuration

Replace number of subclause by 5.8.3

Annex A – Examples of information on hydrophone properties

A.2 Basic information

Table A.1 – Example of basic information for 0,2 mm needle hydrophone assembly

*Replace, in the final row, first column, "*Orientation in use*" by the following:*

Intended orientation in use (nominal direction of ultrasound incidence)

A.4 Directional response

Add, after the existing notes, the following new note:

NOTE 3 The frequency value of 5 MHz agrees with the geometric mean of 1 MHz and 20 MHz within ± 15 %, in accordance with 5.5.1.

A.6 Dynamic range, linearity and electromagnetic interference

A.6.1 Lower dynamic limit

Delete the second paragraph of the Note.

A.6.2 Upper dynamic limit

*Replace, in the third paragraph, the sentence "*Threshold of linearity = 40 MPa*" by "*The linear range is from 1 kPa to 40 MPa".

A.7 Electric output characteristics

Replace the existing text by the following:

The electric load condition to which the sensitivity values of A.3 relate is 50 Ω.

A.8 Environmental aspects

In the list item c), replace "dough moulding compound (DMC)" *by* "dimethylene chloride (DMC)".