SLOVENSKI STANDARD
SIST EN 60731:1998/A1:2002

01-november-2002

Medical electrical equipment - Dosimeters with ionization chambers as used in radiotherapy

Medical electrical equipment - Dosimeters with ionization chambers as used in radiotherapy

Medizinische elektrische Geräte - Dosimeter mit Ionisationskammern zur Anwendung in der Strahlentherapie

Appareils électromédicaux - Dosimètres à chambre d'ionisation utilisés en radiothérapie

Ta slovenski standard je istoveten z: EN 60731:1997/A1:2002

ICS:

11.040.50	Radiografska oprema	Radiographic equipment
17.240	Merjenje sevanja	Radiation measurements

SIST EN 60731:1998/A1:2002 **en**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

EN 60731/A1

September 2002

ICS 11.040.50; 11.040.60

English version

Medical electrical equipment - Dosimeters with ionization chambers as used in radiotherapy (IEC 60731:1997/A1:2002)

Appareils électromédicaux - Dosimètres à chambres d'ionisation utilisés en radiothérapie (CEI 60731:1997/A1:2002)

Medizinische elektrische Geräte - Dosimeter mit Ionisationskammern zur Anwendung in der Strahlentherapie (IEC 60731:1997/A1:2002)

This amendment A1 modifies the European Standard EN 60731:1997; it was approved by CENELEC on 2002-09-01. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 Central Secretariat or to any CENELEC member.

This amendment exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CENELEC member into its own language and notified to the Central Secretariat has the same status as the official versions.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, Spain, Sweden, Switzerland and United Kingdom.

CENELEC

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

Central Secretariat: rue de Stassart 35, B - 1050 Brussels

Ref. No. EN 60731:1997/A1:2002 E

Foreword

The text of document 62C/332/FDIS, future amendment 1 to IEC 60731:1997, prepared by SC 62C, Equipment for radiotherapy, nuclear medicine and radiation dosimetry, of IEC TC 62, Electrical equipment in medical practice, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as amendment A1 to EN 60731:1997 on 2002-09-01.

The following dates were fixed:

– latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2003-06-01

– latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 2005-09-01

Endorsement notice

The text of amendment 1:2002 to the International Standard IEC 60731:1997 was approved by CENELEC as an amendment to the European Standard without any modification.

INTERNATIONAL STANDARD

IEC 60731

1997

AMENDMENT 1
2002-06

Amendment 1

Medical electrical equipment – Dosimeters with ionization chambers as used in radiotherapy

Amendement 1

Appareils électromédicaux – Dosimètres à chambres d'ionisation utilisés en radiothérapie

International Electrotechnical Commission, 3, rue de Varembé, PO Box 131, CH-1211 Geneva 20, Switzerland
Telephone: +41 22 919 02 11 Telefax: +41 22 919 03 00 E-mail: inmail@iec.ch Web: www.iec.ch

Commission Electrotechnique Internationale
International Electrotechnical Commission
Международная Электротехническая Комиссия

PRICE CODE C

For price, see current catalogue

FOREWORD

This amendment has been prepared by subcommittee SC 62C: Equipment for radiotherapy, nuclear medicine and radiation dosimetry, of IEC Technical Committee 62: Electrical equipment in medical practice.

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

FDIS	Report on voting
62C/332/FDIS	62C/338/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 the base publication and its amendments will remain unchanged until 2006. At this date, in accordance with the committee's decision, the publication will be

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

Page 89

6.1.6 Electromagnetic compatibility

Replace subclauses 6.1.6.3 to 6.1.6.5 by the following:

6.1.6.3 Conducted disturbances induced by bursts and radio-frequencies

The maximum spurious indications (both transient and permanent) of the display or data output due to conducted disturbances induced by bursts and radio-frequencies shall be less than the limits given in table 3c).

For mains-operated instruments, compliance shall be checked by observing and recording the indications of the display and any data output terminals while measurements are performed on the most sensitive range (if the ranges are selectable), both with and without the presence of conducted disturbances induced by bursts (IEC 61000-4-4) and conducted disturbances induced by radio-frequency fields (IEC 61000-4-6). The severity level shall in both cases be level 3 as described in these standards. A radioactive check source may be used for these measurements.

NOTE Complete "latch-up" of the MEASURING ASSEMBLY which would not lead to an incorrect DOSE / DOSE RATE value being indicated is allowed.

6.1.6.4 Surges

The maximum spurious indications (both transient and permanent) of the display or data output due to surges shall be less than the limits given in table 3c). The test is not to be performed on the connection lines between the ion chamber and the measuring assembly.

For mains-operated instruments compliance shall be checked by observing and recording the indications of the display and any data output terminals while measurements are performed on the most sensitive range (if the ranges are selectable), both with and without the presence of disturbances induced by surges (IEC 61000-4-5). The severity level shall be level 3 as described in that standard.

NOTE Complete "latch-up" of the MEASURING ASSEMBLY which would not lead to an incorrect DOSE / DOSE RATE value being indicated is allowed.

6.1.6.5 Voltage dips, short interruptions and voltage variations

The maximum spurious indications (both transient and permanent) of the display or data output due to voltage dips and short interruptions shall be less than the limits given in table 3c).

For mains-operated instruments compliance shall be checked by observing and recording the indications of the display and any data output terminals while measurements are performed on the most sensitive range (if the ranges are selectable), both with and without the presence of disturbances induced by voltage dips and short interruptions and voltage variations as described in IEC 61000-4-11. Test levels shall be 40 % U_T with duration of 25 periods for voltage dips and interruptions and 2 s/1 s/2 s for decreasing voltage/reduced voltage/increasing voltage in the case of voltage variations.

NOTE Complete "latch-up" of the MEASURING ASSEMBLY which would not lead to an incorrect DOSE / DOSE RATE value being indicated is allowed.