## SLOVENSKI STANDARD

**SIST EN 60526:2005** 

januar 2005

Visokonapetostne kabelske povezave z vtičem in vtičnico za medicinsko rentgensko opremo

(istoveten EN 60526:2004)

High-voltage cable plug and socket connections for medical X-ray equipment

## iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN 60526:2005</u> https://standards.iteh.ai/catalog/standards/sist/015b699f-7fc7-490f-8ee3-e2a7c10cc29b/sist-en-60526-2005

ICS 11.040.50; 29.120.30

Referenčna številka SIST EN 60526:2005(en)

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### **EUROPEAN STANDARD**

### EN 60526

## NORME EUROPÉENNE

## **EUROPÄISCHE NORM**

September 2004

ICS 11.040.50; 29.120.30

Supersedes HD 364 S2:1983

English version

## High-voltage cable plug and socket connections for medical X-ray equipment

(IEC 60526:1978, modified)

Raccordements par fiche et réceptacle des câbles haute tension pour équipements à rayons X à usage médical (CEI 60526:1978, modifiée)

Hochspannungskabel-Steckverbindungen für medizinische Röntgengeräte (IEC 60526:1978, modifiziert)

## iTeh STANDARD PREVIEW (standards.iteh.ai)

This European Standard was approved by CENELEC on 2004-07-06. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard 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 European Standard 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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, 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

#### **Foreword**

The text of the International Standard IEC 60526:1978, prepared by SC 62B, Diagnostic imaging equipment, of IEC TC 62, Electrical equipment in medical practice, together with common modifications prepared by the Technical Committee CENELEC TC 62, Electrical equipment in medical practice, was approved by CENELEC as HD 364 S2 on 1983-09-07.

This Harmonization Document was submitted to the formal vote for conversion into a European Standard and was approved by CENELEC as EN 60526 on 2004-07-06.

The following date was fixed:

 latest date by which the EN has to be implemented at national level by publication of an identical national standard or by endorsement

(dop) 2005-07-01

#### **Endorsement notice**

The text of the International Standard IEC 60256:1978 was approved by CENELEC as a European Standard with agreed common modifications as given below.

COMMON MODIFICATIONS (Standards.Iten.ai)

#### 6 Statement of compliance

SIST EN 60526:2005

At the end of the 3 list items on three-conductor assemblies, **replace** the reference to "IEC 526/1975" by "IEC 60526:1975 or IEC 60526:1978".

## NORME INTERNATIONALE INTERNATIONAL STANDARD

CEI IEC 526

Deuxième édition Second edition 1978-01

Raccordements par fiche et réceptacle des câbles haute tension pour équipements à rayons X à usage médical

### iTeh STANDARD PREVIEW

High-voltage cable plugiand socket connections for medical X-ray equipment

<u>SIST EN 60526:2005</u> https://standards.iteh.ai/catalog/standards/sist/015b699f-7fc7-490f-8ee3-e2a7c10cc29b/sist-en-60526-2005

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#### INTERNATIONAL ELECTROTECHNICAL COMMISSION

# HIGH-VOLTAGE CABLE PLUG AND SOCKET CONNECTIONS FOR MEDICAL X-RAY EQUIPMENT

#### **FOREWORD**

- 1) The formal decisions or agreements of the IEC on technical matters, prepared by Technical Committees on which all the National Committees having a special interest therein are represented, express, as nearly as possible, an international consensus of opinion on the subjects dealt with.
- 2) They have the form of recommendations for international use and they are accepted by the National Committees in that sense.
- 3) In order to promote international unification, the IEC expresses the wish that all National Committees should adopt the text of the IEC recommendation for their national rules in so far as national conditions will permit. Any divergence between the IEC recommendation and the corresponding national rules should, as far as possible, be clearly indicated in the latter.

### iTeh STANDPREFACEPREVIEW

This standard has been prepared by Sub-Committee 62B, X-ray Equipment Operating up to 400 kV and Accessories, of IEC Technical Committee No. 62, Electrical Equipment in Medical Practice.

#### SIST EN 60526:2005

It forms the second edition to IEC Publication 526/(1975):b699f-7fc7-490f-8ee3-

The first edition was published in 1975 containing the requirements on three-conductor high-voltage cable plug and socket connections. It was based upon a first draft discussed at the meeting in London in 1970. As a result of the meeting held in Rockville, Maryland, in 1973, the draft, Document 62B(Central Office)13, was submitted to the National Committees for approval under the Six Months' Rule in January 1974. Sixteen countries voted explicitly in favour of publication.

A draft incorporating the additional requirements on four-conductor high-voltage cable plug and socket connections was discussed at the meeting held in Ottawa in 1976. As a result of this meeting, the draft, Document 62B(Central Office)30, was submitted to the National Committees for approval under the Six Months' Rule in December 1976.

The following countries voted explicitly in favour of publication:

Australia Italy Japan Belgium Netherlands Canada South Africa (Republic of) China Spain Denmark Sweden Egypt Switzerland Finland Turkey France

Germany United Kingdom

The requirements on three-conductor high-voltage cable plug and socket connections in the present standard are identical with those of the first edition.

# HIGH-VOLTAGE CABLE PLUG AND SOCKET CONNECTIONS FOR MEDICAL X-RAY EQUIPMENT

#### 1. Scope

This standard deals with:

- essential dimensions to ensure mechanical interchangeability;
- recommended dimensions;
- wiring connections to contacts of plug and socket;
- marking of contacts of plug and socket;

of three-conductor and four-conductor high-voltage cable plug and socket connections for medical X-ray equipment.

- Notes 1. Ratings of maximum potential difference and electric current are not dealt with in this standard because the behaviour of a high-voltage cable plug and socket connection depends on the materials of the cable termination plug assembly and the receptacle socket assembly, and upon environmental factors.
  - 2. This standard does not include details or particulars of means for preventing removal of the ring nut (see Sub-clause 2.2) or of the cable termination plug assembly without the use of a tool.
  - 3. In cases where high-voltage connections of a type not complying with this standard are used, the X-ray equipment shall comply with the appropriate IEC standards.

#### SIST EN 60526:2005

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#### 2. Terminology

#### 2.1 Degree of requirements

In this standard the auxiliary verb

- "shall" implies that compliance with a requirement is mandatory for compliance with the standard
- "should" implies that compliance with a requirement is strongly recommended but is not mandatory for compliance with the standard
- "may" implies that compliance with a requirement is permitted to be accomplished in a particular manner, for compliance with the standard.

Note - These definitions are under consideration.

#### 2.2 Terms

A high-voltage cable connection according to this standard is composed of:

- the cable termination plug assembly consisting of the main components:

ring nut component 1 — Figures 1 and 5 (pages 14 and 17);

plug component 2 — Figures 1 and 5;

contact pins component 3 — Figures 1 and 5;

fitted to the prepared cable end with suitable provision for earthing, insulation and sealing;

- the receptacle socket assembly consisting of the main components:

mounting flange

component 4 — Figure 3 (page 16);

thrust ring

component 5 — Figure 4 (page 16);

socket with contacts and terminals component 6 — Figures 2 and 6 (pages 15 and 18);

the mounting flange possibly forming part of a high potential assembly, an X-ray tube assembly or other item of equipment.

#### 3. Dimensions

The dimensions of the high-voltage cable connection shall comply with those shown in Figures 1 to 4 or 3 to 6, as appropriate, and should comply with those enclosed in parentheses.

#### 4. Connections

The connections from the high potential assembly and from the X-ray tube to the terminals of the receptacle socket assembly and the connections of the two cable termination plug assemblies to the cable shall be effected as shown in Tables I or II, as appropriate.

#### 5. Marking

The terminals of the receptacle socket assembly shall be identified by marking with either graphical or letter symbols as given in Tables I or II and shown in Figures 2 or 6.

If the contact pins of the cable termination plug assembly are to be identified, the marking shall be in accordance with Tables I or II and with Figures 1 or 5.

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6. Statement of compliance

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If compliance of a cable termination plug assembly and/or a receptacle socket assembly with this standard is to be stated, this shall be indicated appropriately as follows:

- three-conductor cable connection IEC 526/1975;
- three-conductor cable termination IEC 526/1975;
- three-conductor receptacle socket IEC 526/1975;

or:

- four-conductor cable connection IEC 526/1978;
- four-conductor cable termination IEC 526/1978;
- four-conductor receptacle socket IEC 526/1978.