



**SLOVENSKI STANDARD**  
**SIST EN 61984:2002**  
**01-september-2002**

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**Connectors - Safety requirements and tests (IEC 61984:2001)**

Connectors - Safety requirements and tests

Steckverbinder - Sicherheitsanforderungen und Prüfungen

Connecteurs - Prescriptions de sécurité et essais

**Ta slovenski standard je istoveten z: EN 61984:2001**

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**ICS:**

31.220.10 Xcã žã Ácã } ã^É [ ] ^\ d !ã Plug-and-socket devices.  
Connectors

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EUROPEAN STANDARD

**EN 61984**

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2001

ICS 31.220.10

English version

**Connectors -  
Safety requirements and tests  
(IEC 61984:2001)****Connecteurs -  
Prescriptions de sécurité et essais  
(CEI 61984:2001)****Steckverbinder -  
Sicherheitsanforderungen und Prüfungen  
(IEC 61984:2001)****iTeh STANDARD PREVIEW****(standards.iteh.ai)**

This European Standard was approved by CENELEC on 2001-10-01. 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, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, Netherlands, Norway, Portugal, 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 document 48B/1007/FDIS, future edition 1 of IEC 61984, prepared by SC 48B, Connectors, of IEC TC 48, Electromechanical components and mechanical structures for electronic equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61984 on 2001-10-01.

The following dates were 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) 2002-07-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2004-10-01

Annexes designated "normative" are part of the body of the standard.  
Annexes designated "informative" are given for information only.  
In this standard, annex ZA is normative and annex A is informative.  
Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 61984:2001 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standards indicated:

IEC 60068-2-20:1979 + A2:1987	NOTE Harmonized as HD 323.2.20 S3:1988 (not modified).
IEC 60417-1:1998	NOTE Harmonized as EN 60417-1:1999 (not modified).
IEC 60423:1993	NOTE Harmonized as EN 60423:1994 (modified).
IEC 60512-11-1:1995	NOTE Harmonized as EN 60512-11-1:1999 (not modified).

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## Annex ZA (normative)

### Normative references to international publications with their corresponding European publications

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 (including amendments).

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

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60050-581	1978	International Electrotechnical Vocabulary (IEV) - Chapter 581: Electromechanical components for electronic equipment	-	-
IEC 60050-826	1982	Chapter 826: Electrical installations of buildings	HD 384.2 S2 <sup>1)</sup>	2001
IEC 60060-1	1989	High-voltage test techniques Part 1: General definitions and test requirements	HD 588.1 S1 <sup>2)</sup>	1991
IEC 60068-1	1988	Environmental testing Part 1: General and guidance	EN 60068-1 <sup>3)</sup>	1994
IEC 60068-2-70	1995	Part 2: Tests - Test Xb: Abrasion of markings and letterings caused by rubbing of fingers and hands	EN 60068-2-70	1996
IEC 60112	1979	Method for determining the comparative and the proof tracking indices of solid insulating materials under moist conditions	HD 214 S2	1980
IEC 60309-1	1999	Plugs, socket-outlets and couplers for industrial purposes Part 1: General requirements	EN 60309-1	1999
IEC 60352-1	- <sup>4)</sup>	Solderless connections Part 1: Wrapped connections - General requirements, test methods and practical guidance	EN 60352-1	1997 <sup>5)</sup>

<sup>1)</sup> HD 384.2 S2 includes amendments A1:1990 + A2:1995 + A3:1999 to IEC 60050-826.

<sup>2)</sup> HD 588.1 S1 includes corrigendum March 1990 to IEC 60060-1.

<sup>3)</sup> EN 60068-1 includes corrigendum October 1988 + A1:1992 to IEC 60068-1.

<sup>4)</sup> Undated reference.

<sup>5)</sup> Valid edition at time of issue.

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<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60352-2	- <sup>4)</sup>	Part 2: Solderless crimped connections - General requirements, test methods and practical guidance	EN 60352-2	1994 <sup>5)</sup>
IEC 60352-3	- <sup>4)</sup>	Part 3: Solderless accessible insulation displacement connections - General requirements, test methods and practical guidance	EN 60352-3	1994 <sup>5)</sup>
IEC 60352-4	- <sup>4)</sup>	Part 4: Solderless non-accessible insulation displacement connections - General requirements, test methods and practical guidance	EN 60352-4	1994 <sup>5)</sup>
IEC 60352-5	- <sup>4)</sup>	Part 5: Press-in connections - General requirements, test methods and practical guidance	EN 60352-5	2001 <sup>5)</sup>
IEC 60364-4-41 (mod)	1992	Electrical installations of buildings Part 4: Protection for safety - Chapter 41: Protection against electric shock	HD 384.4.41 S2	1996
IEC 60364-5-54 (mod)	1980	Part 5: Selection and erection of electrical equipment - Chapter 54: Earthing arrangements and protective conductors	HD 384.5.54 S1	1988
IEC 60417-2	1998	Graphical symbols for use on equipment Part 2: Symbol originals	EN 60417-2	1999
IEC 60512	Series	Connectors for electronic equipment - Tests and measurements	EN 60512	Series
IEC 60512-1	2001	Connectors for electronic equipment - Tests and measurements Part 1: General	EN 60512-1	2001
IEC 60512-11-7	1996	Part 11: Climatic tests - Section 7: Test 11g: Flowing mixed gas corrosion test	EN 60512-11-7	1996
IEC 60529	1989	Degrees of protection provided by enclosures (IP Code)	EN 60529 + corr. May	1991 1993
IEC 60664-1 (mod)	1992	Insulation coordination for equipment within low-voltage systems Part 1: Principles, requirements and tests	HD 625.1 S1 + corr. November	1996 1996
A1	2000		-	-
IEC 60760	1989	Flat, quick-connect terminations	-	-
IEC 60884-1	1994	Plugs and socket-outlets for household and similar purposes Part 1: General requirements	-	-

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60999-1	1999	Connecting devices - Electrical copper conductors - Safety requirements for screw-type and screwless-type clamping units Part 1: General requirements and particular requirements for clamping units for conductors from 0,2 mm <sup>2</sup> up to 35 mm <sup>2</sup> (included)	EN 60999-1	2000
IEC 60999-2	1995	Part 2: Particular requirements for conductors from 35 mm <sup>2</sup> up to 300 mm <sup>2</sup>	-	-
IEC 61140	1997	Protection against electric shock – Common aspects for installation and equipment	EN 61140	2001
IEC 61210 (mod)	1993	Connecting devices - Flat quick-connect terminations for electrical copper conductors - Safety requirements	EN 61210	1995
ISO 6988	1985	Metallic and other non organic coatings – Sulfur dioxide test with general condensation of moisture	EN ISO 6988	1994

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NORME  
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CEI  
IEC

61984

Première édition  
First edition  
2001-06

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**Connecteurs –  
Prescriptions de sécurité et essais**

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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For price, see current catalogue*

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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**CONNECTORS –  
SAFETY REQUIREMENTS AND TESTS**
**FOREWORD**

- 1) The IEC (International Electrotechnical Commission) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of the IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, the IEC publishes International Standards. Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. The IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of the IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested National Committees.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, technical reports or guides and they are accepted by the National Committees in that sense.
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- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61984 has been prepared by subcommittee 48B: Connectors, of IEC technical committee 48: Electromechanical components and mechanical structures for electronic equipment.

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

FDIS	Report on voting
48B/1007/FDIS	48B/1056/RVD

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

This publication has been drafted in accordance with the ISO/IEC Directives, Part 3.

Annex A is for information only.

The committee has decided that this publication remains valid until 2005. At this date, in accordance with the committee's decision, the publication will be

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

## CONNECTORS – SAFETY REQUIREMENTS AND TESTS

### 1 Scope

This International Standard applies to connectors with rated voltages above 50 V and up to 1 000 V and rated currents up to 125 A per contact, for which either no detail specification (DS) exists or the DS calls up this standard for safety aspects.

For connectors with rated voltages up to 50 V, this standard may be used as a guide. In this case, reference is made to IEC 60664-1 for clearances and creepage distances.

This standard does not apply to connectors in or on equipment where the applicable safety standard for the equipment includes comprehensive safety requirements for those connectors.

### 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 60050(581):1978, *International Electrotechnical Vocabulary (IEV) – Chapter 581: Electromechanical components for electronic equipment*

IEC 60050(826):1982, *International Electrotechnical Vocabulary (IEV) – Chapter 826: Electrical installations of buildings*

IEC 60060-1:1989, *High-voltage test techniques – Part 1: General definitions and test requirements*

IEC 60068-1:1988, *Environmental testing – Part 1: General and guidance*

IEC 60068-2-70:1995, *Environmental testing – Part 2: Tests – Test Xb: Abrasion of marking and letterings caused by rubbing of fingers and hands*

IEC 60112:1979, *Method for determining the comparative and proof tracking indices of solid insulating materials under moist conditions*

IEC 60309-1:1999, *Plugs, socket-outlets and couplers for industrial purposes – Part 1: General requirements*

IEC 60352-1, *Solderless connections – Part 1: Wrapped connections – General requirements, test methods and practical guidance*

IEC 60352-2, *Solderless connections – Part 2: Solderless crimped connections – General requirements, test methods and practical guidance*