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**Končniki za elektronsko opremo - 7-2. del: Podrobna specifikacija za 8-polne, neščitene, proste in pritrjene končnike, za prenos podatkov s frekvencami do 100 MHz**

Connectors for electronic equipment -- Part 7-2: Detail specification for 8-way, unshielded, free and fixed connectors, for data transmissions with frequencies up to 100 MHz

Steckverbinder für elektronische Einrichtungen -- Teil 7-2: Bauartspezifikation für ungeschirmte freie und feste Steckverbinder, 8polig, für Datenübertragungen bis 100 MHz

Connecteurs pour équipements électroniques -- Partie 7-2: Spécification particulière pour les fiches et les embases non blindées à 8 voies pour la transmission de données à des fréquences jusqu'à 100 MHz

**Ta slovenski standard je istoveten z: EN 60603-7-2:2009**

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**ICS:**

31.220.10      Vtiči in vtičnice, konektorji      Plug-and-socket devices.  
Connectors

**SIST EN 60603-7-2:2010**

**en,fr,de**

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**Connectors for electronic equipment -  
Part 7-2: Detail specification for 8-way,  
unshielded, free and fixed connectors,  
for data transmissions with frequencies up to 100 MHz  
(IEC 60603-7-2:2007)**

Connecteurs pour équipements  
électroniques -  
Partie 7-2: Spécification particulière  
pour les fiches et les embases  
non blindées à 8 voies  
pour la transmission de données  
à des fréquences jusqu'à 100 MHz  
(CEI 60603-7-2:2007)

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Europäisches Komitee für Elektrotechnische Normung

**Central Secretariat: Avenue Marnix 17, B - 1000 Brussels**

## Foreword

The text of document 48B/1740/FDIS, future edition 1 of IEC 60603-7-2, 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 60603-7-2 on 2009-09-01.

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) 2010-06-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2012-09-01

Annex ZA has been added by CENELEC.

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## Endorsement notice

The text of the International Standard IEC 60603-7-2:2007 was approved by CENELEC as a European Standard without any modification.

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## Annex ZA (normative)

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

The following referenced documents are indispensable for the application 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 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>
-	-	Communication cables - Specifications for test methods - Part 1-14: Electrical test methods - Coupling attenuation or screening attenuation of connecting hardware	EN 50289-1-14	- <sup>1)</sup>
IEC 60050-581	- <sup>1)</sup>	International Electrotechnical Vocabulary (IEV) - Part 581: Electromechanical components for electronic equipment	-	-
IEC 60068-1	- <sup>1)</sup>	Environmental testing - Part 1: General and guidance	EN 60068-1	1994 <sup>2)</sup>
IEC 60068-2-38	- <sup>1)</sup>	Environmental testing - Part 2-38: Tests - Test Z/AD: Composite temperature/humidity cyclic test	EN 60068-2-38	2009
IEC 60169-16	- <sup>1)</sup>	Radio-frequency connectors - Part 16: R.F. coaxial connectors with inner diameter of outer conductor 7 mm (0,276 in) with screw coupling - Characteristic impedance 50 ohms (75 ohms) (type N)	-	-
IEC 60352	Series	Solderless connections	EN 60352	Series
IEC 60512	Series	Connectors for electronic equipment - Tests and measurements	EN 60512	Series
IEC 60512-1-100	- <sup>1)</sup>	Connectors for electronic equipment - Tests and measurements - Part 1-100: General - Applicable publications	EN 60512-1-100	2006 <sup>2)</sup>
IEC 60603-1	- <sup>1)</sup>	Connectors for frequencies below 3 MHz for use with printed boards - Part 1: Generic specification - General requirements and guide for the preparation of detail specifications, with assessed quality	EN 60603-1	1998 <sup>2)</sup>
IEC 60603-7	Series	Connectors for electronic equipment - Part 7: Detail specifications for 8-way free and fixed connectors	EN 60603-7	Series
IEC 60664-1	- <sup>1)</sup>	Insulation coordination for equipment within low-voltage systems - Part 1: Principles, requirements and tests	EN 60664-1	2007 <sup>2)</sup>

<sup>1)</sup> Undated reference.

<sup>2)</sup> Valid edition at date of issue.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 61076-1	- <sup>1)</sup>	Connectors for electronic equipment - Product requirements - Part 1: Generic specification	EN 61076-1	2006 <sup>2)</sup>
IEC 61156	Series	Multicore and symmetrical pair/quad cables for digital communications	-	-
ISO/IEC 11801	2002	Information technology - Generic cabling for customer premises	-	-
ISO 1302	- <sup>1)</sup>	Geometrical Product Specifications (GPS) - Indication of surface texture in technical product documentation	EN ISO 1302	2002 <sup>2)</sup>
ITU-T Recommendation K.20	- <sup>1)</sup>	Resistibility of telecommunication equipment installed in a telecommunications centre to overvoltages and overcurrents	-	-
ITU-T Recommendation K.44	- <sup>1)</sup>	Resistibility tests for telecommunication equipment exposed to overvoltages and overcurrents - Basic Recommendation	-	-
ITU-T Recommendation G.117	- <sup>1)</sup>	Transmission aspects of unbalance about earth	-	-
ITU-T Recommendation O.9	- <sup>1)</sup>	Measuring arrangements to assess the degree of unbalance about earth	-	-

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**Connecteurs pour équipements électroniques –**

**Partie 7-2:**

**Spécification particulière  
pour les fiches et les embases non  
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données à des fréquences jusqu'à 100 MHz**

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**Connectors for electronic equipment –**

**Part 7-2:**

**Detail specification for 8-way,  
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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## CONNECTORS FOR ELECTRONIC EQUIPMENT –

**Part 7-2: Detail specification for 8-way, unshielded,  
free and fixed connectors, for data transmissions  
with frequencies up to 100 MHz**

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
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International Standard IEC 60603-7-2 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/1740/FDIS	48B/1748/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 2.

A list of all parts of the IEC 60603 series, under the general title *Connectors for electronic equipment*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result 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
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## INTRODUCTION

Applications have emerged which require the use of the interface described in IEC 60603-7:1996 with certain performance specifications at higher frequencies. The parameters for this performance include insertion loss, near end crosstalk (NEXT), far end crosstalk (FEXT), and return loss. Based on application requirements, the specifications for these parameters always apply to a mated connection of a free (plug) and fixed (outlet) connector. Details for testing of connectors and test plugs are given in Annex C.

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## CONNECTORS FOR ELECTRONIC EQUIPMENT –

### Part 7-2: Detail specification for 8-way, unshielded, free and fixed connectors, for data transmissions with frequencies up to 100 MHz

## 1 General

### 1.1 Scope

This part of IEC 60603-7 covers 8-way, unshielded, free and fixed connectors, and specifies mechanical and environmental requirements, and electrical transmission requirements for frequencies up to 100 MHz. These connectors are typically used as category 5 connectors in class D cabling systems specified in ISO/IEC 11801:2002.

These connectors are intermateable, interoperable, and backward compatible with other IEC 60603-7 series connectors. While the definition of interoperable is being discussed within IEC, “interoperable” in this standard means the following: The fixed and the free connector are capable of interconnecting with any IEC 60603-7 series connector, and that when it is interconnected, it fully meets all requirements of the lower frequency IEC 60603-7 series standard.

NOTE Transmission performance categories: in this part of IEC 60603-7, the term “category”, when used in reference to transmission performance, refers to those categories defined by ISO/IEC 11801:2002.

### 1.2 Normative references

[SIST EN 60603-7-2:2010](https://standards.iteh.ai/catalog/standards/sist/395d75fa-ba8d-4bd4-995a-bc32353d7ab/sist-en-60603-7-2-2010)

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IEC 60050(581), *International Electrotechnical Vocabulary (IEV) – Chapter 581: Electro-mechanical components for electronic equipment*

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

IEC 60068-2-38, *Environmental testing – Part 2: Tests. Test Z/AD: Composite temperature/humidity cyclic test*

IEC 60169-16, *Radio frequency connectors – Part 16: R.F. coaxial connectors with inner diameter of outer conductor 7 mm (0,276 in) with screw coupling – Characteristic impedance 50 ohms (75 ohms) (Type N)*

IEC 60352 (all parts), *Solderless connections*

IEC 60512 (all parts), *Connectors for electronic equipment – Tests and measurements*

IEC 60512-1-100, *Connectors for electronic equipment – Tests and measurements – Part 1-100: General – Applicable publications*

IEC 60603-1, *Connectors for frequencies below 3 MHz for use with printed boards – Part 1: Generic specification – General requirements and guide for the preparation of detail specifications, with assessed quality*

IEC 60603-7 (all parts), *Connectors for electronic equipment*

IEC 60664-1, *Insulation coordination for equipment within low-voltage systems – Part 1: Principles, requirements and tests*

IEC 61076-1, *Connectors for electronic equipment – Product requirements – Part 1: Generic specification*

IEC 61156 (all parts), *Multi-core and symmetrical pair/quad cables for digital communications*

ISO/IEC 11801:2002, *Information technology – Generic cabling for customer premises*

ISO 1302, *Geometrical Product Specifications (GPS) – Indication of surface texture in technical product documentation*

ITU-T K.20, *Resistibility of telecommunication equipment installed in a telecommunications centre to overvoltages and overcurrents*

ITU-T K.44, *Resistibility tests for telecommunication equipment exposed to overvoltages and overcurrents – Basic Recommendation*

ITU-T G.117, *Transmission aspects of unbalance about earth*

ITU-T O.9, *Measuring arrangements to assess the degree of unbalance about earth*

EN 50289-1-14, *Communication cables – Specifications for test methods – Part 1-14: Electrical test methods – Coupling attenuation or screening attenuation of connecting hardware*

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