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**Connectors for frequencies below 3 MHz for use with printed boards - Part 10: Two-part connectors for printed boards for basic grid of 2,54 mm (0,1 in), inverted type (IEC 60603-10:1991)**

Connectors for frequencies below 3 MHz for use with printed boards -- Part 10: Two-part connectors for printed boards for basic grid of 2,54 mm (0,1 in), inverted type

Steckverbinder für gedruckte Schaltungen für Frequenzen unter 3 MHz -- Teil 10: Indirekte Steckverbinder für gedruckte Schaltungen mit Raster 2,54 mm (0,1 in), invertierte Bauform

Connecteurs pour fréquences inférieures à 3 MHz pour utilisation avec cartes imprimées -- Partie 10: Connecteurs pour circuits imprimés en deux parties pour grille de base de 2,54 mm (0,1 in), de type inversé

**Ta slovenski standard je istoveten z: EN 60603-10:1998**

**ICS:**

31.220.10 Xā 7ā Ācā } 3Ā Ā [ } ^ ħ ĩā Plug-and-socket devices.  
Connectors

**SIST EN 60603-10:2002**

**en**

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EUROPEAN STANDARD

EN 60603-10

NORME EUROPÉENNE

EUROPÄISCHE NORM

February 1998

ICS 31.220.10

Descriptors: Electronic components, electric connectors, printed-circuit cards, printed-circuit boards, designation, dimensions, assembling, couplings, tests, standard gauges, characteristics

English version

**Connectors for frequencies below 3 MHz for use with printed boards**  
**Part 10: Two-part connectors for printed boards for basic grid of**  
**2,54 mm (0,1 in), inverted type**  
**(IEC 60603-10:1991)**

Connecteurs pour fréquences inférieures  
à 3 MHz pour utilisation avec cartes  
imprimées

Partie 10: Connecteurs pour circuits  
imprimés en deux parties pour grille de  
base de 2,54 mm (0,1 in), de type  
inversé  
(CEI 60603-10:1991)

Steckverbinder für gedruckte  
Schaltungen für Frequenzen  
unter 3 MHz

Teil 10: Indirekte Steckverbinder für  
gedruckte Schaltungen mit Raster  
2,54 mm (0,1 in), invertierte Bauform  
(IEC 60603-10:1991)

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This European Standard was approved by CENELEC on 1998-01-01. 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, 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 the International Standard IEC 60603-10:1991, prepared by SC 48B, Connectors, of IEC TC 48, Electromechanical components and mechanical structures for electronic equipment, was submitted to the formal vote and was approved by CENELEC as EN 60603-10 on 1998-01-01 without any modification.

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) 1998-12-01
- latest date by which the national standards conflicting  
with the EN have to be withdrawn (dow) 1998-12-01

Annexes designated "normative" are part of the body of the standard.  
In this standard, annex ZA is normative.  
Annexes ZA has been added by CENELEC.

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### Endorsement notice

The text of the International Standard IEC 60603-10:1991 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**

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 60097	1970 <sup>1)</sup>	Grid system for printed circuits	-	-
IEC 60194	1988	Terms and definitions for printed circuits	HD 142 S3	1991
IEC 60326	series	Printed boards	-	-
IEC 60512	series	Electromechanical components for electronic equipment Basic testing procedures and measuring methods	EN 60512	series
IEC 60603-1	1991	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 <sup>2)</sup>	1998

1) IEC 60097:1991 is harmonized as EN 60097:1993.

2) EN 60603-1 includes A1:1992 to IEC 60603-1.

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NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD

CEI  
IEC  
603-10

Première édition  
First edition  
1991-10

**Connecteurs pour fréquences inférieures à  
3 MHz pour utilisation avec cartes imprimées**

**Partie 10:**

**Connecteurs pour circuits imprimés en deux parties  
pour grille de base de 2,54 mm (0,1 in),  
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**Connectors for frequencies below 3 MHz  
for use with printed boards**

**Part 10:**

**Two-part connectors for printed boards for basic  
grid of 2,54 mm (0,1 in), inverted type**

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For price, see current catalogue

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

CONNECTORS FOR FREQUENCIES BELOW 3 MHz FOR USE  
WITH PRINTED BOARDSPart 10: Two-part connectors for printed boards for  
basic grid of 2,54 mm (0,1 in), inverted type

## 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.
- 4) The IEC has not laid down any procedure concerning marking as an indication of approval and has no responsibility when an item of equipment is declared to comply with one of its recommendations.

This standard has been prepared by Sub-Committee 48B: Connectors, of IEC Technical Committee No. 48: Electromechanical components for electronic equipment.

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

Six Months' Rule	Report on Voting
48B(CO)138	48B(CO)153

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

## CONNECTORS FOR FREQUENCIES BELOW 3 MHz FOR USE WITH PRINTED BOARDS

### Part 10: Two-part connectors for printed boards for basic grid of 2,54 mm (0,1 in), inverted type

#### 1 Scope

This specification covers a group of related two-part connectors for printed boards. It describes connectors with 32, 48, 64 and 96 contacts for low-voltage applications.

The board-mounted connectors with female contacts are provided with terminations suitable for printed boards in accordance with IEC 326 and using a grid of 2,54 mm (0,1 in) as laid down in IEC 97.

The fixed connectors with male contacts are provided either with solder contacts or with wrap contacts. The terminations of the fixed connectors are located in such a way as to be suitable for use with mother boards using a grid of 2,54 mm (0,1 in) as laid down in IEC 97 as well as for automatic wiring techniques.

This standard shall be used in conjunction with the following IEC publications:

Publications Nos. 50(581) (1978) International Electrotechnical Vocabulary (IEV) –  
Chapter 581: Electromechanical components for  
electronic equipment.

97 (1970): Grid system for printed circuits.

194 (1988): Terms and definitions for printed circuits.

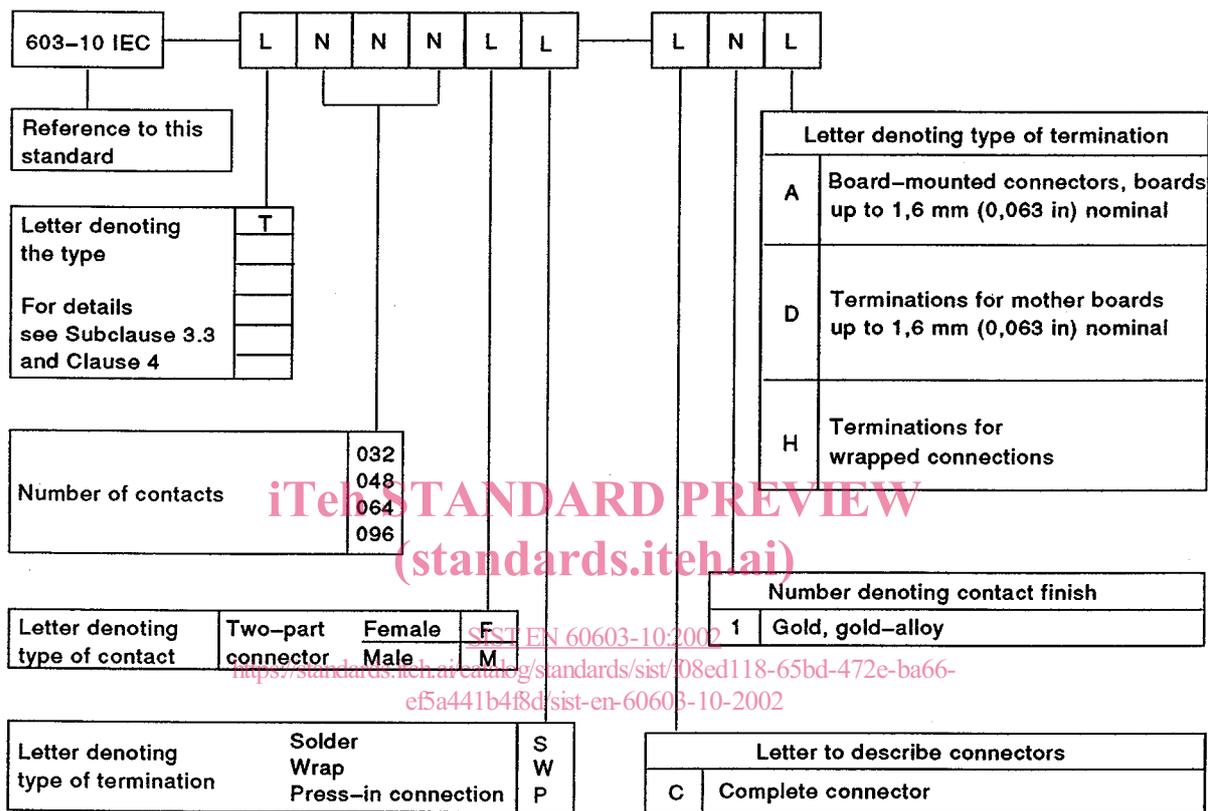
326: Printed boards.

512: Electromechanical components for electronic equipment; Basic testing procedures and measuring methods.

603-1 (1991): 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.

2 IEC type designation

Connectors according to this standard shall be designated by the following system:



NOTE - «L» stands for letter.  
 «N» stands for number.

**Example** – Connector type T, having 96 male gold contacts with solder terminations. Complete board-mounted connector for boards up to 1,6 mm (0,063 in):  
 603-10 IEC-T096 MS-C1A.

### 3 Common features

#### 3.1 Mounting dimensions

##### 3.1.1 Reference system

A line in the mounting plane of the fixed connector which passes through the nominal position of the centres of the mounting holes is used as the datum line. The nominal centre of the mounting hole near contact No. 32 is used as the datum point.

The dimensions in 3.1.2 and 3.1.3 are defined with reference to this datum system.

##### 3.1.2 Fixed connector

###### 3.1.2.1 Position of the mounting holes.

###### 3.1.2.2 Position of the terminations.

The distance between termination centres shall be 2,54 mm (0,1 in) or multiples thereof. The terminations shall be located so as to permit automatic wiring techniques.

##### 3.1.3 Printed board assembly

###### 3.1.3.1 Position of the board-mounted connector.

###### 3.1.3.2 Position of the mounting holes of the board-mounted connector.

###### 3.1.3.3 Position of the printed board.

###### 3.1.3.4 Position of the grid of the printed board.

The terminations of the board-mounted connectors shall fit into holes in the printed board in accordance with IEC 326 and located on a grid 2,54 mm (0,1 in) in accordance with IEC 97.