
Electromechanical components for electronic equipment - Basic testing procedure and measuring methods - Part 10: Impact tests (free components), static load tests (fixed components), endurance tests and overload tests - Section 4: Test 10d: Electrical overload (connectors) (IEC 60512-10-4:1996)

Electromechanical components for electronic equipment - Basic testing procedures and measuring methods -- Part 10: Impact tests (free components), static load tests (fixed components), endurance tests and overload tests -- Section 4: Test 10d: Electrical overload (connectors)

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Elektrisch-mechanische Bauelemente für elektronische Einrichtungen - Meß- und Prüfverfahren -- Teil 10: Aufprallprüfungen (freie Bauelemente), Prüfungen mit statischer Last (feste Bauelemente), Dauerprüfungen und Überlastprüfungen -- Hauptabschnitt 4: Prüfung 10d: Elektrische Überlast (Steckverbinder)

Composants électromécaniques pour équipements électroniques - Procédures d'essai de base et méthodes de mesure -- Partie 10: Essais d'impact (composants libres), essais d'impact sous charge statique (composants fixes), essais d'endurance et essais de surcharge -- Section 4: Essai 10d: Surcharge électrique (connecteurs)

Ta slovenski standard je istoveten z: EN 60512-10-4:1996

ICS:

31.220.10 Xā āā Ąā } āĀ [} ^ ğ ĩā Plug-and-socket devices.
Connectors

SIST EN 60512-10-4:2002

en

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60512-10-4

July 1996

ICS 31.220.00

Descriptors: Testing procedures, connectors, electrical overload test

English version

**Electromechanical components for electronic equipment
Basic testing procedures and measuring methods.
Part 10: Impact tests (free components), static load tests
(fixed components), endurance tests and overload tests
Section 4: Test 10d: Electrical overload (connectors)
(IEC 512-10-4:1996)**

Composants électromécaniques pour
équipements électroniques - Procédures
d'essai de base et méthodes de mesure
Partie 10: Essais d'impact (composants
libres), essais d'impact sous charge
statique (composants fixes), essais
d'endurance et essais de surcharge
Section 4: Essai 10d: Surcharge
électrique (connecteurs)
(CEI 512-10-4:1996)

Elektrisch-mechanische Bauelemente für
elektronische Einrichtungen
Meß- und Prüfverfahren
Teil 10: Aufprallprüfungen (freie
Bauelemente), Prüfungen mit statischer
Last (feste Bauelemente),
Dauerprüfungen und Überlastprüfungen
Hauptabschnitt 4: Prüfung 10d:
Elektrische Überlast (Steckverbinder)
(IEC 512-10-4:1996)

This European Standard was approved by CENELEC on 1996-07-02. 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, 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 document 48B/460/FDIS, future edition 1 of IEC 512-10-4, 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 60512-10-4 on 1996-07-02.

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) 1997-04-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 1997-04-01

This standard is to be used in conjunction with EN 60512-1, "General", which explains the structure of EN 60512 series.

Endorsement notice

The text of the International Standard IEC 512-10-4:1996 was approved by CENELEC as a European Standard without any modification.

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**NORME
INTERNATIONALE
INTERNATIONAL
STANDARD**

**CEI
IEC**

512-10-4

Première édition
First edition
1996-05

**Composants électromécaniques
pour équipements électroniques – procédures
d'essai de base et méthodes de mesure –**

**Partie 10:
Essais d'impact (composants libres),
essais d'impact sous charge statique
(composants fixes), essais d'endurance
et essais de surcharge –**

**Section 4: Essai 10d: Surcharge électrique
(connecteurs)**

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**Electromechanical components
for electronic equipment – basic testing
procedures and measuring methods –**

**Part 10:
Impact tests (free components),
static load tests (fixed components),
endurance tests and overload tests –
Section 4: Test 10d: Electrical overload
(connectors)**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**ELECTROMECHANICAL COMPONENTS FOR ELECTRONIC EQUIPMENT –
BASIC TESTING PROCEDURES AND MEASURING METHODS –****Part 10: Impact tests (free components), static load tests
(fixed components), endurance tests and overload tests –
Section 4: Test 10d: Electrical overload (connectors)**

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 cooperation 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 reports or guides and they are accepted by the National Committees in that sense.
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International Standard IEC 512-10-4 has been prepared by subcommittee 48B: Connectors, of IEC technical committee 48: Electromechanical components and mechanical structures for electronic equipment.

This standard cancels and replaces clause 14 of IEC 512-5 (test 10d). It should be read in conjunction with IEC 512-1, General, which explains the structure of IEC 512 series.

The complete publication will include other tests which will be issued as they become available.

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

FDIS	Report on voting
48B/460/FDIS	48B/492/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.

ELECTROMECHANICAL COMPONENTS FOR ELECTRONIC EQUIPMENT – BASIC TESTING PROCEDURES AND MEASURING METHODS –

Part 10: Impact tests (free components), static load tests (fixed components), endurance tests and overload tests – Section 4: Test 10d: Electrical overload (connectors)

1 Scope and object

The present section of IEC 512-10 applies to the electrical overload test of mated contact pairs of connectors.

The object of this test is to detail a standard method to assess the performance of mated contact pairs of connectors with an electrical overload current flowing through them for a limited period of time, in the order of 1 ms to 1 s.

NOTE - Practice shows that for limited periods of time contacts can conduct a multiple of the maximum permissible current without damage to the contact area.

Transient surge currents, ranging from 1 ms to 1 s in time, may flow through connectors before protective circuits respond, for example, when a fault occurs in equipment or in a system.

2 Normative reference

The following normative document contains provisions which, through reference in this text, constitute provisions of this section of IEC 512-10. At the time of publication, the edition indicated was valid. All normative documents are subject to revision, and parties to agreements based on this section of IEC 512-10 are encouraged to investigate the possibility of applying the most recent edition of the normative document indicated below. Members of IEC and ISO maintain registers of currently valid normative documents.

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IEC 512: *Electromechanical components for electronic equipment; basic testing procedures and measuring methods*

3 Preparation of specimens

The connectors shall be wired with the maximum wire size for the contacts and, unless otherwise specified in the detail specification, the shortest possible wire lengths compatible with the contact arrangement.

Contacts of the same size in a connector set shall be wired in series.

The connectors shall be mated.

4 Test method

4.1 Initial measurements (if applicable)

The initial measurements shall be made as prescribed by the detail specification.