

Connectors for electronic equipment — Tests and measurements —

**Part 16-2: Mechanical tests on contacts
and terminations — Test 16b: Restricted
entry**

ICS 31.220.10

National foreword

This British Standard is the UK implementation of EN 60512-16-2:2008. It is identical to IEC 60512-16-2:2008.

The UK participation in its preparation was entrusted to Technical Committee EPL/48, Electromechanical components and mechanical structures for electronic equipment.

A list of organizations represented on this committee can be obtained on request to its secretary.

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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Amendments/corrigenda issued since publication

Date	Comments

**Connectors for electronic equipment -
Tests and measurements -
Part 16-2: Mechanical tests on contacts and terminations -
Test 16b: Restricted entry
(IEC 60512-16-2:2008)**

Connecteurs
pour équipements électroniques -
Essais et mesures -
Partie 16-2: Essais mécaniques
des contacts et des sorties -
Essai 16b: Entrée restreinte
(CEI 60512-16-2:2008)

Steckverbinder
für elektronische Einrichtungen -
Mess- und Prüfverfahren -
Teil 16-2: Mechanische Prüfungen
an Kontakten und Anschlüssen -
Prüfung 16b: Stecköffnung
(IEC 60512-16-2:2008)

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CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

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Foreword

The text of document 48B/1878/FDIS, future edition 1 of IEC 60512-16-2, 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 60512-16-2 on 2008-07-01.

This standard is to be read in conjunction with EN 60512-1 and EN 60512-1-100 which explains the structure of the EN 60512 series.

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) 2009-04-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2011-07-01

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60512-16-2:2008 was approved by CENELEC as a European Standard without any modification.

CONNECTORS FOR ELECTRONIC EQUIPMENT – TESTS AND MEASUREMENTS –

Part 16-2: Mechanical tests on contacts and terminations – Test 16b: Restricted entry

1 Scope and object

This part of IEC 60512, when required by the detail specification, is used for testing connectors within the scope of technical committee 48. It may also be used for similar devices when specified in a detail specification.

The object of this part of IEC 60512 is to detail a standard test method to assess the effectiveness of the means by which an oversize male contact, or other similar object, is prevented from entering the equivalent female contact.

NOTE Although this test is particularly applicable to cylindrical contacts, the use for contacts with other geometries is not excluded. In which case, the detail specification should contain sufficient detail, given under 5.e), to enable the test to be done.

2 Normative references

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.

IEC 60512-1-1, *Connectors for electronic equipment – Tests and measurements – Part 1-1: General examination – Test 1a: Visual examination*

3 Preparations

3.1 Preparation of specimen

The specimen shall consist of a connector with its terminations, and may be wired if so specified in the detail specification. Any preconditioning given in the component detail specification shall be applied. If lubricant is required by the detail specification, this shall be applied in the manner so specified.

3.2 Equipment

A test gauge, as specified in the detail specification, shall be provided.

3.3 Pre-conditioning

Any pre-conditioning of the samples required by the applicable detail specification shall be applied.

3.4 Mounting

If mounting of the specimen is necessary, it shall be as specified in the detail specification.

4 Test method

4.1 Procedure

Attempts shall be made to enter the specified test gauge into the connector under test.

If a maximum force to achieve this is given in detail specification, this shall not be exceeded. If no such force is specified, the maximum force deemed appropriate by the testing laboratory shall be applied. The value of this force shall be recorded.

4.2 Measurements and requirements

4.2.1 Before testing

Visual examination according to IEC 60512-1-1 shall be carried out. There shall be no defects, which would impair the validity of the test.

4.2.2 During testing

If it is possible to cause the test gauge to enter the connector under test, such force shall be measured.

NOTE It is recommended that electrical contact between the test probe and the contact under test be one criterion of entry.

4.2.3 After testing

Visual examination according to IEC 60512-1-1 shall be carried out. Details shall be specified.

5 Details to be specified

When this test is required by a detail specification, the following shall be given therein:

- a) whether preconditioning is required;
 - b) wiring of the specimen;
 - c) whether special mounting of the specimen is required;
 - d) maximum force to be applied may be specified;
 - e) if the contact is not cylindrical, sufficient details of equipment procedure, and measurements, for the test to be done;
 - f) any deviation from the standard test method.
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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>
IEC 60512-1-1	- ¹⁾	Connectors for electronic equipment - Tests and measurements - Part 1-1: General examination - Test 1a: Visual examination	EN 60512-1-1	2002 ²⁾

¹⁾ Undated reference.

²⁾ Valid edition at date of issue.

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