



Irish Standard  
I.S. EN 60512-9-4:2011

Connectors for electronic equipment -  
Tests and measurements -- Part 9-4:  
Endurance tests - Test 9d: Durability of  
contact retention system and seals  
(maintenance, ageing) (IEC 60512-9  
-4:2011 (EQV))

## I.S. EN 60512-9-4:2011

*Incorporating amendments/corrigenda issued since publication:*

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S.R. xxx: Standard Recommendation - recommendation based on the consensus of an expert panel and subject to public consultation.

SWiFT xxx: A rapidly developed recommendatory document based on the consensus of the participants of an NSAI workshop.

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EUROPEAN STANDARD  
NORME EUROPÉENNE  
EUROPÄISCHE NORM

**EN 60512-9-4**

June 2011

ICS 31.220.01

English version

**Connectors for electronic equipment -  
Tests and measurements -  
Part 9-4: Endurance tests -  
Test 9d: Durability of contact retention system and seals (maintenance,  
ageing)  
(IEC 60512-9-4:2011)**

Connecteurs pour équipements  
électroniques – Essais et mesures –  
Partie 9-4: Essais d'endurance – Essai 9d:  
Durabilité du système de rétention des  
contacts et des joints d'étanchéité  
(entretien, vieillissement)  
(CEI 60512-9-4:2011)

Steckverbinder für elektronische  
Einrichtungen -  
Mess- und Prüfverfahren -  
Teil 9-4: Dauerprüfungen -  
Prüfung 9d: Dauerhaftigkeit von  
Kontakthalterung und Dichtungen  
(Alterung infolge Wartung)  
(IEC 60512-9-4:2011)

This European Standard was approved by CENELEC on 2011-05-12. 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.

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**CENELEC**

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

**Management Centre: Avenue Marnix 17, B - 1000 Brussels**

## **Foreword**

The text of document 48B/2123/CDV, future edition 1 of IEC 60512-9-4, 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 60512-9-4 on 2011-05-12.

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.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN and CENELEC shall not be held responsible for identifying any or all such patent rights.

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) | 2012-02-12 |
| – latest date by which the national standards conflicting with the EN have to be withdrawn   | (dow) | 2014-05-12 |

Annex ZA has been added by CENELEC.

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## **Endorsement notice**

The text of the International Standard IEC 60512-9-4:2011 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>
IEC 60512-1	-	Connectors for electronic equipment - Tests and measurements - Part 1: General	EN 60512-1	-
IEC 60512-1-1	-	Connectors for electronic equipment - Tests and measurements - Part 1-1: General examination - Test 1a: Visual examination	EN 60512-1-1	-
IEC 60512-1-100	-	Connectors for electronic equipment - Tests and measurements - Part 1-100: General - Applicable publications	EN 60512-1-100	-
IEC 60512-15-1	-	Connectors for electronic equipment - Tests and measurements - Part 15-1: Connector tests (mechanical) - Test 15a: Contact retention in insert	EN 60512-15-1	-
IEC 60512-15-4	-	Connectors for electronic equipment - Tests and measurements - Part 15-4: Connector tests (mechanical) - Test 15d: Contact insertion, release and extraction force	EN 60512-15-4	-

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

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### **CONNECTORS FOR ELECTRONIC EQUIPMENT – TESTS AND MEASUREMENTS –**

#### **Part 9-4: Endurance tests – Test 9d: Durability of contact retention system and seals (maintenance, ageing)**

### FOREWORD

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International Standard IEC 60512-9-4 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 Test 9d of IEC 60512-5, issued in 1992 and constitutes a technical revision.

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



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

CDV	Report on voting
48B/2123/CDV	48B/2215/RVC

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 in the IEC 60512 series, under the general title *Connectors for electronic equipment – Tests and measurements*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the stability 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

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