SLOVENSKI STANDARD

SIST EN 60068-2-42:2004

november 2004

Okoljski preskusi - 2-42. del: Preskusi - Preskus Kc: Preskus glede na žveplov dioksid za kontakte in spoje (IEC 60068-2-42:2003)

Environmental testing – Part 2-42: Tests – Test Kc: Sulphur dioxide test for contacts and connections (IEC 60068-2-42:2003)

ICS 19.040

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EUROPEAN STANDARD **EN 60068-2-42**

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ICS 31.220.10

English version

Environmental testing
Part 2-42: Tests –
Test Kc: Sulphur dioxide test
for contacts and connections
(IEC 60068-2-42:2003)

Essais d'environnement
Partie 2-42: Essais –
Essai Kc: Essai à l'anhydride sulfureux
pour contacts et connexions
(CEI 60068-2-42:2003)

Umweltprüfungen
Teil 2-42: Prüfungen –
Prüfung Kc: Schwefeldioxid für Kontakte
und Verbindungen
(IEC 60068-2-42:2003)

This European Standard was approved by CENELEC on 2003-09-01. 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, Hungary, Iceland, Ireland, Italy, Lithuania, Luxembourg, Malta, Netherlands, Norway, Portugal, Slovakia, 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

Ref. No. EN 60068-2-42:2003 E

Foreword

The text of document 48B/1324/FDIS, future edition 3 of IEC 60068-2-42, 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 60068-2-42 on 2003-09-01.

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) 2004-06-01

– latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2006-09-01

Annexes designated "normative" are part of the body of the standard.
Annexes designated "informative" are given for information only.
In this standard, annex ZA is normative and annex A is informative.
Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 60068-2-42:2003 was approved by CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following note has to be added for the standard indicated:

IEC 60068-1	NOTE	Harmonized as EN 60068-1:1994 (not modified).

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.

Publication	Year	Title	EN/HD	Year
IEC 60512-2-1	2002	Connectors for electronic equipment - Tests and measurements Part 2-1: Electrical continuity and contact resistance tests - Test 2a: Contact resistance - Millivolt level method	EN 60512-2-1	2002

NORME INTERNATIONALE

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CEI
IEC
60068-2-42

Troisième édition
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2003-05

Essais d'environnement –

Partie 2-42:
Essais –
Essai Kc: Essai à l'anhydride sulfureux pour contacts et connexions

Environmental testing –

Part 2-42:
Tests –
Test Kc: Sulphur dioxide test for contacts and connections

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

ENVIRONMENTAL TESTING –

Part 2-42: Tests – Test Kc: Sulphur dioxide test for contacts and connections

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 co-operation 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.
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International Standard IEC 60068-2-42 has been prepared by subcommittee 48B: Connectors, of IEC technical committee 48: Electromechanical components and mechanical structures for electronic equipment.

This third edition cancels and replaces the second edition issued in 1982 and constitutes a technical revision.

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

FDIS	Report on voting
48B/1324/FDIS	48B/1351/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.

The committee has decided that the contents of this publication will remain unchanged until 2007. At this date, the publication will be

- reconfirmed;
- withdrawn;
- replaced by a revised edition, or
- amended.

ENVIRONMENTAL TESTING –

Part 2-42: Tests – Test Kc: Sulphur dioxide test for contacts and connections

1 Scope and object

This test:

– is intended to provide accelerated means to assess the corrosive effects of atmospheres polluted with sulphur dioxide on contacts and connections;

– is particularly suitable for giving information on a comparative basis;

– is not suitable as a general corrosion test, i.e. it may not predict the behaviour of contacts and connections in industrial atmospheres.

NOTE In view of the limited information to be obtained from accelerated corrosion tests, particular attention should be paid to the guidance on this test given in IEC 60068-2-49. Reference should also be made to IEC 60355.

The object of this test is:

a) to determine the influence of atmospheres containing sulphur dioxide on the contact properties of precious metal or precious metal-covered contacts and connections, excluding contacts consisting of silver and some of its alloys;

b) to check solderless connections with regard to their tightness or effectiveness. In all tests, the major criterion of performance will be the change in contact resistance caused by exposure to the sulphur dioxide test atmosphere.

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 60512-2-1:2002, *Connectors for electronic equipment – Tests and measurements – Part 2-1: Electrical continuity and contact resistance tests – Test 2a: Contact resistance – Millivolt level method*

3 Test apparatus

The test apparatus consists of a climatic system, test enclosures, a gas delivery system and means for measuring gas concentration, detailed in Annex A.

3.1 Test chamber

The test chamber and its auxiliary parts shall be made of materials that do not react with or absorb sulphur dioxide and which do not influence the corrosive effects of the test atmosphere. The mixture of air and sulphur dioxide shall enter and leave the chamber through tubes with sufficiently large diameters such that the total flow through the chamber is at least three, but not more than five, changes of the atmosphere per hour. The exhaust from the chamber should not be allowed to enter the laboratory.