

**SLOVENSKI
STANDARD**

SIST EN 61010-2-061:1999

prva izdaja

julij 1999

Safety requirements for electrical equipment for measurement, control, and laboratory use -- Part 2-061: Particular requirements for laboratory atomic spectrometers with thermal atomization and ionization (IEC 61010-2-061:1995)

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ICS 19.080; 71.040.10

Referenčna številka
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ICS 19.080

Descriptors: Electrical equipment for measurement, electrical equipment for control, electrical equipment for laboratory use, safety requirements, laboratory atomic spectrometers, thermal atomization and ionization

English version

**Safety requirements for electrical equipment for measurement,
control, and laboratory use**
**Part 2-061: Particular requirements for laboratory atomic
spectrometers with thermal atomization and ionization**
(IEC 1010-2-061:1995)

Règles de sécurité pour appareils
électriques de mesurage, de régulation
et de laboratoire
Partie 2-061: Prescriptions particulières
pour spectromètres de laboratoire avec
vaporisation et ionisation thermique
(CEI 1010-2-061:1995)

Sicherheitsbestimmungen für elektrische
Meß-, Steuer-, Regel- und Laborgeräte
Teil 2-061: Besondere Anforderungen
an Labor-Atomspektrometer mit
thermischer Atomisierung und Ionisation
(IEC 1010-2-061:1995)

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This European Standard was approved by CENELEC on 1995-11-28. 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 66/111/DIS, future edition 1 of IEC 1010-2-061, prepared by IEC TC 66, Safety of measuring, control, and laboratory equipment, was submitted to the IEC-CENELEC parallel vote and was approved by CENELEC as EN 61010-2-061 on 1995-11-28.

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) 1996-09-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 1996-09-01

For products which have complied with the relevant national standard before 1996-09-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2001-09-01.

This part 2 is to be used in conjunction with 61010-1:1993. Consideration may be given to future editions of, or amendments to, EN 61010-1.

This part 2 supplements or modifies the corresponding clauses of EN 61010-1. Where a particular clause or subclause of part 1 is not mentioned in this part 2, that clause or subclause applies as far as is reasonable. Where this part 2 states "addition", "modification" or "replacement", the relevant text of part 1 is to be adapted accordingly.

Subclauses or figures which are additional to those in part 1 are numbered starting from 101.

Endorsement notice

The text of the International Standard IEC 1010-2-061:1995 was approved by CENELEC as a European Standard without any modification.

NORME
INTERNATIONALE
INTERNATIONAL
STANDARD

CEI
IEC
1010-2-061

Première édition
First edition
1995-09

PUBLICATION GROUPEE DE SECURITE
GROUP SAFETY PUBLICATION

**Règles de sécurité pour appareils électriques
de mesurage, de régulation et de laboratoire**

Partie 2-061:

Prescriptions particulières pour spectromètres
de laboratoire avec vaporisation et ionisation
thermiques

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**Safety requirements for electrical equipment
for measurement, control, and laboratory use**

Part 2-061:

Particular requirements for laboratory atomic
spectrometers with thermal atomization and
ionization

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International Electrotechnical Commission
Международная Электротехническая Комиссия

CODE PRIX
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For price, see current catalogue

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

SAFETY REQUIREMENTS FOR ELECTRICAL EQUIPMENT FOR
MEASUREMENT, CONTROL, AND LABORATORY USEPart 2-061: Particular requirements for laboratory atomic
spectrometers with thermal atomization and ionization

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, 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.
- 3) They have the form of recommendations for international use published in the form of standards, technical reports or guides and they are accepted by the National Committees in that sense.
- 4) In order to promote international unification, IEC National Committees undertake to apply IEC International Standards transparently to the maximum extent possible in their national and regional standards. Any divergence between the IEC Standard and the corresponding national or regional standard shall be clearly indicated in the latter.
- 5) The IEC provides no marking procedure to indicate its approval and cannot be rendered responsible for any equipment declared to be in conformity with one of its standards.

International Standard IEC 1010-2-061 has been prepared by IEC technical committee 66: Safety of measuring, control, and laboratory equipment.

It has the status of a group safety publication in accordance with IEC Guide 104.

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

DIS	Report on voting
66/111/DIS	66/133/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 part 2 is intended to be used in conjunction with IEC 1010-1. It was established on the basis of the first edition (1990) and its amendment 1 (1991). Consideration may be given to future editions of, or amendments to, IEC 1010-1.

This part 2 supplements or modifies the corresponding clauses in IEC 1010-1 so as to convert that publication into the IEC standard: *Safety requirements for laboratory atomic spectrometers with thermal atomization and ionization.*

Where a particular subclause of part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. Where this part states "addition", "modification" or "replacement", the relevant requirement, test specification or note in part 1 should be adapted accordingly.

In this standard:

1) the following print types are used:

- requirements: in roman type;
- NOTES: in small roman type;
- *compliance: in italic type;*
- terms used throughout this standard which have been defined in clause 3: SMALL ROMAN CAPITALS.

2) Subclauses or figures which are additional to those in part 1 are numbered starting from 101.

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SAFETY REQUIREMENTS FOR ELECTRICAL EQUIPMENT FOR MEASUREMENT, CONTROL, AND LABORATORY USE

Part 2-061: Particular requirements for laboratory atomic spectrometers with thermal atomization and ionization

1 Scope and object

This clause of part 1 is applicable except as follows:

1.1 Scope

Replacement:

Replace the complete text by the following:

This International Standard applies to electrically powered laboratory atomic spectrometers with thermal atomization.

NOTE – Examples include atomic absorption spectrometers, emission flame photometers, atomic fluorescence spectrophotometers, inductively coupled plasma spectrometers, microwave coupled plasma spectrometers, and mass spectrometers, all with thermal atomization and ionization (including tubing and connectors which are provided by the manufacturer for connection to external supplies).

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1.1.2 Equipment excluded from scope standards.iteh.ai

Addition:

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Add the following new dash: <https://standards.iteh.ai/catalog/standards/sist/76e8f038-4ffc-4cee-88ea-257bbf4508b1/sist-en-61010-2-061-1999>

- thermal atomization detectors (flame ionization detectors) used in gas chromatography.

2 Normative references

This clause of IEC 1010-1: 1990 (including Amendment 1: 1992 and Amendment 2: 1995) is applicable.

3 Definitions

This clause of part 1 is applicable except as follows:

Additional definitions:

3.2.101 SPRAY CHAMBER: Chamber in which droplets of sample in aerosol are allowed to separate so that the droplets of necessary size can be passed onward to the burner, with the remainder draining to waste.

3.2.102 GAS LOCK: Device to allow drainage of waste sample liquid, and to prevent unintentional escape of gas from the SPRAY CHAMBER through its drain outlet (see for example figure 101).

3.5.101 FLASH-BACK: Event during which the flame travels back through the burner with the result that the gas in the mixing chamber is caused to ignite.