

**SLOVENSKI STANDARD**  
**SIST EN 61010-2-010:1999/A1:1999**  
**01-julij-1999**

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**Safety requirements for electrical equipment for measurement, control and laboratory use -- Part 2-010: Particular requirements for laboratory equipment for the heating of materials - Amendment A1 (IEC 61010-2-010:1992/A1:1996)**

Safety requirements for electrical equipment for measurement, control and laboratory use -- Part 2-010: Particular requirements for laboratory equipment for the heating of materials

**iTeh STANDARD PREVIEW**  
Sicherheitsbestimmungen für elektrische Meß-, Steuer-, Regel- und Laborgeräte -- Teil 2-010: Besondere Anforderungen an Laborgeräte für das Erhitzen von Stoffen

**SIST EN 61010-2-010:1999/A1:1999**  
Règles de sécurité pour appareils électriques de mesurage, de régulation et de laboratoire -- Partie 2-010: Prescriptions particulières pour appareils de laboratoire utilisés pour l'échauffement des matières

**Ta slovenski standard je istoveten z: EN 61010-2-010:1994/A1:1996**

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**ICS:**

19.080	Električno in elektronsko preskušanje	Electrical and electronic testing
71.040.10	Kemijski laboratoriji. Laboratorijska oprema	Chemical laboratories. Laboratory equipment

**SIST EN 61010-2-010:1999/A1:1999**      **en**

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EUROPEAN STANDARD

EN 61010-2-010/A1

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 1996

ICS 19.080; 71.040.20

CLC/TC 66X

Descriptors: Electrical equipment for measurement, electrical equipment for control, electrical equipment for laboratory use, laboratory equipment for the heating of materials, safety requirements

English version

**Safety requirements for electrical equipment for measurement,  
control and laboratory use**  
**Part 2-010: Particular requirements for laboratory equipment  
for the heating of materials**  
(IEC 1010-2-010:1992/A1:1996)

Règles de sécurité pour appareils  
électriques de mesurage, de régulation  
et de laboratoire  
Partie 2-010: Prescriptions particulières  
pour appareils de laboratoire utilisés  
pour l'échauffement des matières  
(CEI 1010-2-010:1992/A1:1996)

Sicherheitsbestimmungen für elektrische  
Meß-, Steuer-, Regel- und Laborgeräte  
Teil 2-010: Besondere Anforderungen  
an Laborgeräte zum Erhitzen von  
Stoffen  
(IEC 1010-2-010:1992/A1:1996)

<https://standards.iteh.ai/catalog/standards/sist/862cf255-7289-446a-b1e4-569a3e7faf8c/sist-en-61010-2-010-1999-a1-1999>

This amendment A1 modifies the European Standard EN 61010-2-010:1994; it was approved by CENELEC on 1996-03-05. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this amendment 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 amendment 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 66/124/FDIS, future amendment 1 to IEC 1010-2-010:1992, 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 amendment A1 to EN 61010-2-010:1994 on 1996-03-05.

The following dates were fixed:

- latest date by which the amendment has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 1996-12-01
- latest date by which the national standards conflicting with the amendment have to be withdrawn (dow) 1996-12-01

For products which have complied with EN 61010-2-010:1994 before 1996-12-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 2001-12-01.

### Endorsement notice

The text of amendment 1:1996 to the International Standard IEC 1010-2-010:1992 was approved by CENELEC as an amendment to the European Standard without any modification.

[SIST EN 61010-2-010:1999/A1:1999](https://standards.iteh.ai/catalog/standards/sist/862cf255-7289-446a-b1e4-569a3e7faf8c/sist-en-61010-2-010-1999-a1-1999)

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NORME  
INTERNATIONALE  
INTERNATIONAL  
STANDARD

CEI  
IEC  
1010-2-010

1992

AMENDEMENT 1

AMENDMENT 1

1996-01

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PUBLICATION GROUPEE DE SÉCURITÉ  
GROUP SAFETY PUBLICATION

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Amendement 1

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

iTeh **STANDARD PREVIEW**

Partie 2-010:

Prescriptions particulières pour appareils de  
laboratoire utilisés pour l'échauffement des matières

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Amendment 1

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

Part 2-010:

Particular requirements for laboratory equipment  
for the heating of materials

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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

CODE PRIX  
PRICE CODE

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Pour prix, voir catalogue en vigueur  
For price, see current catalogue

## FOREWORD

This amendment has been prepared by IEC technical committee 66: Safety of measuring control and laboratory equipment.

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), its amendment 1 (1991) and its amendment 2 (1995). Consideration may be given to future editions of, or amendments to, IEC 1010-1.

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

FDIS	Report on voting
66/124/FDIS	66/139/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

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**iTeh STANDARD PREVIEW**  
*Delete from the list Annex AA and its title.*  
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## FOREWORD

*Delete, on page 7, the second paragraph "Annex AA is for information only".*

*Delete in item 2) the text following the semi-colon.*

Page 9

## 1.1 Scope

*Replace the text by the following:*

This part 2 applies only to electrical powered laboratory equipment for the heating of materials, where the heating of materials is the only function or is one of several functions of the equipment.

## 2 Normative references

*Replace the text by the following:*

This clause of IEC 1010-1:1990 incorporating amendment 1:1992 and amendment 2:1995 is applicable.

## 3 Definitions

*Replace the text by the following:*

*This clause of Part 1 is applicable except as follows:*

*Addition:*

**3.7.101 POLLUTION DEGREE 3:** Conductive pollution occurs or non-conductive pollution occurs which becomes conductive due to condensation which is to be expected.

Page 11

### 4.4.2.10 Heating devices

*Replace the added dash by a new (standard) paragraph as follows:*

If a hazard (see 1.2) could be caused by overfilling or underfilling with a heat transfer medium specified for NORMAL USE, the equipment shall be tested when overfilled or empty, or under both conditions, as appropriate (see 9.5 and 11.4).

### 5.1.6 TERMINALS and operating devices

*Replace, on page 13, the paragraph added to item f) by the following new paragraph:*

For ovens and similar equipment, there shall be an indication of the "ON" condition on each side of the equipment which has a door in it.

Page 13

### 5.2.101 Equipment with high ACCESSIBLE current

*Replace the two existing paragraphs by the following new paragraph:*

If the ACCESSIBLE current of the equipment exceeds the limit of 6.3.1.2 or 6.3.2.2 for non-permanently connected equipment, but is within the limit for PERMANENTLY CONNECTED EQUIPMENT, there shall be a warning marking against non-permanent connection to the supply source. The marking shall be on or beside the cover of the TERMINALS for connection to the supply source, and the warning shall be repeated in the installation instructions. Symbol 14 of table 1 of IEC 1010-1 is an adequate warning marking, particularly when it may not be known in

which country the equipment will be used and, therefore, in which language it would be appropriate to print the warning marking.

#### 5.4.3 Equipment installation

Replace, on page 15, in the second line of the last additional dash the words "the probable" by the word "any".

Page 15

#### 5.4.4 Equipment operation

Delete the first of the added dashes.

##### 5.4.4.101 Cleaning and decontamination

Insert, on page 17, the paragraph immediately following table 1A, which commences "The following wording....", to a new position at the top of the page, before the second paragraph with two notes located above table 1A.

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Page 17

#### Table 1A - Time-temperature conditions

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Replace the existing values in kPa in the first column by the following new values:

325  
250  
215  
175

#### 5.4.5 Equipment maintenance

Replace in line one of the second paragraph the word "checking" by the words "the RESPONSIBLE BODY to check", and in line three of this same paragraph delete the word "the" after "often".

Page 19

##### 6.1.101 Exceptions relating to laboratory heating equipment

Replace in line two of the third dash of the first paragraph the words "requiring ACCESSIBLE heaters, etc.. to remain.." by the words "so that ACCESSIBLE heaters, etc. remain..".

Insert in line two of the second paragraph after "all" the words "those of".



*Replace the text of the fourth dash of the second paragraph by the following new text:*

– the instructions for use state that it is necessary for the OPERATOR to be protected against electric shock, including the possibility of simultaneous contact with HAZARDOUS LIVE parts and parts connected to the PROTECTIVE CONDUCTOR TERMINAL, and indicate the means to achieve this. These means may include one or more of; insulated TOOLS; insulating clothing; standing on an insulating surface; shrouding of parts connected to the PROTECTIVE CONDUCTOR TERMINAL with which the OPERATOR might come into contact in NORMAL USE etc.;

Page 23

## **8 Mechanical resistance to shock, vibration and impact**

*Replace the title by the following:*

### **8 Mechanical resistance to shock and impact**

*Delete in the introductory phrase, the expression “except as follows”.*

#### **8.3 Vibration test**

*Delete the title and text of this subclause.*

## **9 Equipment temperature limits and protection against the spread of fire**

*Delete the modification to table 3.*

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*Addition:*

*Add the following new subclause:*

### **9.1 General**

*Replacement:*

*Replace the first line of the second paragraph by the following :*

If easily-touched surfaces are necessary for functional reasons, whether they are intended to deliver heat or are hot because of their proximity to heating parts, they are permitted....

### **9.5 Overtemperature protection**

*Delete, on page 27, in note 2, the last sentence referring to annex AA.*

*Insert, on page 27, in line four of note 3 the word “the” before “overtemperature”.*