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**Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 2-045: Particular requirements for washer disinfectors used in medical, pharmaceutical, veterinary and laboratory fields**

Safety requirements for electrical equipment for measurement, control, and laboratory use -- Part 2-045: Particular requirements for washer disinfectors used in medical, pharmaceutical, veterinary and laboratory fields

Sicherheitsbestimmungen für elektrische Mess-, Steuer-, Regel- und Laborgeräte -- Teil 2-045: Besondere Anforderungen an Reinigungs-/Desinfektionsgeräte für medizinische, pharmazeutische, veterinäre und Laboranwendungen

[SIST EN 61010-2-045:2002](https://standards.iteh.ai/catalog/standards/sist/962e21d7-b8bb-47d8-98bf-306221000000/sist-en-61010-2-045-2002)

Règles de sécurité pour appareils électriques de mesurage, de régulation et de laboratoire -- Partie 2-045: Prescriptions particulières pour appareils de désinfection/lavage utilisés dans les domaines médical, pharmaceutique, vétérinaire et en laboratoire

**Ta slovenski standard je istoveten z: EN 61010-2-045:2000**

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**ICS:**

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

**SIST EN 61010-2-045:2002**

**en**

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EUROPEAN STANDARD

**EN 61010-2-045**

NORME EUROPÉENNE

EUROPÄISCHE NORM

December 2000

ICS 11.080;19.080

English version

**Safety requirements for electrical equipment for measurement,  
control, and laboratory use**  
**Part 2-045: Particular requirements for washer disinfectors  
used in medical, pharmaceutical, veterinary and laboratory fields**  
(IEC 61010-2-045:2000)

Règles de sécurité pour appareils  
électriques de mesurage, de régulation et  
de laboratoire  
Partie 2-045: Prescriptions particulières  
pour appareils de désinfection/lavage  
utilisés dans les domaines médical,  
pharmaceutique, vétérinaire et en  
laboratoire  
(CEI 61010-2-045:2000)

Sicherheitsbestimmungen für elektrische  
Mess-, Steuer-, Regel- und Laborgeräte  
Teil 2-045: Besondere Anforderungen an  
Reinigungs-/Desinfektionsgeräte für  
medizinische, pharmazeutische,  
veterinäre und Laboranwendungen  
(IEC 61010-2-045:2000)

This European Standard was approved by CENELEC on 2000-11-01. 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, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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**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 66/229/FDIS, future edition 1 of IEC 61010-2-045, 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 61010-2-45 on 2000-11-01.

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) 2001-08-01
- latest date by which the national standards conflicting with the EN have to be withdrawn (dow) 2003-11-01

This part 2-045 is to be used in conjunction with EN 61010-1:1993 and its amendment A2:1995, Safety requirements for electrical equipment for measurement, control and laboratory use -- Part 1: General requirements.

This part 2-045 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 2-045, that clause or subclause applies as far as is reasonable. Where this part 2-045 states "addition", "modification" or "replacement", the relevant text of part 1 is to be adapted accordingly.

In this standard, the following print types are used:

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

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

Annexes designated "normative" are part of the body of the standard.

Annexes designated "informative" are given for information only.

In this standard, annex ZA normative and annex L and M are informative.

Annex ZA has been added by CENELEC.

## iTeh STANDARD PREVIEW Endorsement notice (standards.iteh.ai)

The text of the International Standard IEC 61010-2-045:2000 was approved by CENELEC as a European Standard without any modification. [SIST EN 61010-2-045:2002](https://standards.iteh.ai/catalog/standards/sist/962e21d7-b8bb-47d8-98bf-291b3889c1e1/iec-61010-2-045-2000)

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

IEC 60230<sup>1)</sup> NOTE: Harmonized as HD 48 S1:1977 (not modified).

<sup>1)</sup> IEC 60230 was issued in 1966.

## 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.

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60073	1996	Basic and safety principles for man-machine interface, marking and identification - Coding principles for indication devices and actuators	EN 60073	1996
IEC 60252 (mod)	1993	A.C. motor capacitors	EN 60252 + corr. May	1994 1994
IEC 61326 <sup>2)</sup>	1997	Electrical equipment for measurement control and laboratory use - EMC requirements	EN 61326 + corr. September	1997 1998
IEC 61770	1998	Electric appliances connected to the water mains - Avoidance of backsiphonage and failure of hose-sets	EN 61770	1999

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<sup>2)</sup> IEC 61326-1 was renumbered IEC 61326 by its amendment 1:1998.

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

**Partie 2-045:  
Prescriptions particulières pour appareils  
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les domaines médical, pharmaceutique,  
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Commission Electrotechnique Internationale  
International Electrotechnical Commission  
Международная Электротехническая Комиссия

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**U**

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

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

SAFETY REQUIREMENTS FOR ELECTRICAL EQUIPMENT FOR  
MEASUREMENT, CONTROL, AND LABORATORY USE –Part 2-045: Particular requirements for washer disinfectors  
used in medical, pharmaceutical, veterinary and laboratory fields

## 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.
- 3) The documents produced have the form of recommendations for international use and are published in the form of standards, technical specifications, 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.
- 6) Attention is drawn to the possibility that some of the elements of this International Standard may be the subject of patent rights. The IEC shall not be held responsible for identifying any or all such patent rights.

International Standard IEC 61010-2-045 has been prepared by IEC technical committee 66: Safety of measuring, control, and laboratory equipment.

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

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

SIST EN 61010-2-045:2002

<a href="https://standards.iteh.ai/catalog/standards/sist/962e21d7-b8bb-47d8-98bf-c29bcdaa280f/sist-en-61010-2-045-2002">https://standards.iteh.ai/catalog/standards/sist/962e21d7-b8bb-47d8-98bf-c29bcdaa280f/sist-en-61010-2-045-2002</a>	
FDIS	Report on voting
66/229/FDIS	66/234/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 61010-1. It was established on the basis of the first edition (1990), its amendment 1 (1992) and its amendment 2 (1995). Consideration may be given to future editions of, or amendments to, IEC 61010-1.

This part 2 supplements or modifies the corresponding clauses in IEC 61010-1 so as to convert that publication into the IEC Standard: *Safety requirements for washer disinfectors used in medical, pharmaceutical, veterinary and laboratory fields.*

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;
- *conformity and tests: 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.

The word "Conformity" is used throughout this standard instead of "Compliance" in accordance with the requirements of ISO/IEC Guide 2: 1991, and all references in part 1 to "Compliance" should therefore be read as "Conformity". Part 1 will be changed to reflect "Conformity" when its next edition is published.

The committee has decided that the contents of this publication will remain unchanged until 2003. At this date, the publication will be

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

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## INTRODUCTION

Washer disinfectant equipment can be potentially hazardous in its construction and requires additional safety requirements to those given in part 1 and its amendments 1 and 2.

Other existing national and international standards and regulations also need to be considered since they may supplement this standard.

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

### Part 2-045: Particular requirements for washer disinfectors used in medical, pharmaceutical, veterinary and laboratory fields

#### 1 Scope and object

This clause of part 1 is applicable except as follows:

##### 1.1 Scope

*Replacement:*

This International Standard applies to WASHER DISINFECTORS and other equipment incorporating washing and disinfection processes for the treatment of soiled items used in the medical, veterinary, pharmaceutical, and laboratory fields.

NOTE This equipment may have one or more CHAMBERS and a loading and unloading system.

##### 1.1.1 Aspects excluded from scope

*Addition:*

- EMC requirements, which are covered by IEC 61326-1.

##### 1.1.2 Equipment excluded from scope

*Addition:*

*Add two new dashes as follows:*

- laundry equipment;
- dishwashers.

##### 1.2 Object

*Replacement:*

*Replace the sixth dash by the following:*

- liberated gases, and pathogenic substances, explosion and implosion (see clause 13).

#### 2 Normative references

This clause of IEC 61010-1:1990 (including its amendments 1:1992 and 2:1995) is applicable except as follows:

*Addition:*

##### 2.1 IEC standards

60073:1996, *Basic and safety principles for man-machine interface, marking and identification – Coding principles for indication devices and actuators*

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