

Svenska Elektriska Kommissionen, SEK

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**Elektrisk utrustning för mätning,
styrning och för laboratorieändamål –
Säkerhet –
Del 2-081: Särskilda fordringar på hel- och halvautomatiska
laboratorieutrustningar för analys och liknande ändamål**

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

*Part 2-081: Particular requirements for automatic and semi-automatic
laboratory equipment for analysis and other purposes*

Som svensk standard gäller europastandarden EN 61010-2-081:2002. Den svenska standarden innehåller den officiella engelska språkversionen av EN 61010-2-081:2002.

Nationellt förord

Europastandarden EN 61010-2-081:2002

består av:

- **europastandardens ikraftsättningsdokument**, utarbetat inom CENELEC
- **IEC 61010-2-081, First edition, 2001 - Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes**

utarbetad inom International Electrotechnical Commission, IEC.

Standarden skall användas tillsammans med tidigare utgiven svensk standard SS-EN 61010-1, utgåva 2, 2001.

ICS 19.080; 71.040.10

Denna standard är fastställd av Svenska Elektriska Kommissionen, SEK, som också kan lämna upplysningar om **sakinnehållet** i standarden.
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**Safety requirements for electrical equipment for measurement,
control and laboratory use**
**Part 2-081: Particular requirements for automatic and semi-automatic
laboratory equipment for analysis and other purposes**
(IEC 61010-2-081:2001)

Règles de sécurité pour appareils
électriques de mesurage, de régulation
et de laboratoire
Partie 2-081: Prescriptions particulières
pour les appareils de laboratoire,
automatiques et semi-automatiques,
destinés à l'analyse et autres usages
(CEI 61010-2-081:2001)

Sicherheitsbestimmungen für elektrische
Mess-, Steuer-, Regel- und Laborgeräte
Teil 2-081: Besondere Anforderungen
an automatische und semiautomatische
Laborgeräte für Analysen und andere
Zwecke
(IEC 61010-2-081:2001)

This European Standard was approved by CENELEC on 2002-03-01. 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, Malta, 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 66/260/FDIS, future edition 1 of IEC 61010-2-081, 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 61010-2-081 on 2002-03-01.

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) 2002-12-01
- latest date by which the national standards conflicting
with the EN have to be withdrawn (dow) 2005-03-01

This Part 2-081 is to be used in conjunction with EN 61010-1:2001, Safety requirements for electrical equipment for measurement, control and laboratory use -- Part 1: General requirements.

This Part 2-081 supplements or modifies the corresponding clauses of EN 61010-1 so as to convert it into the European Standard: Safety requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes.

Where a particular clause or subclause of Part 1 is not mentioned in this Part 2-081, that clause or subclause applies as far as is reasonable. Where this Part 2-081 states "addition", "modification" or "replacement", the relevant text of Part 1 is to be adapted accordingly.

In this standard:

- 1) the following print types are used:
 - requirements: in roman type;
 - NOTES: in smaller roman type;
 - *conformity and test: 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, additional annexes are lettered AA, BB, etc.

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

Annexes designated "informative" are given for information only.

In this standard, annexes AA, BB and ZA are normative.

Annex ZA has been added by CENELEC.

Endorsement notice

The text of the International Standard IEC 61010-2-081:2001 was approved by CENELEC as a European Standard without any modification.

Editorial modification to IEC 61010-2-81:

Replace figure AA.1 by the following (from EN ISO 14971:2000):

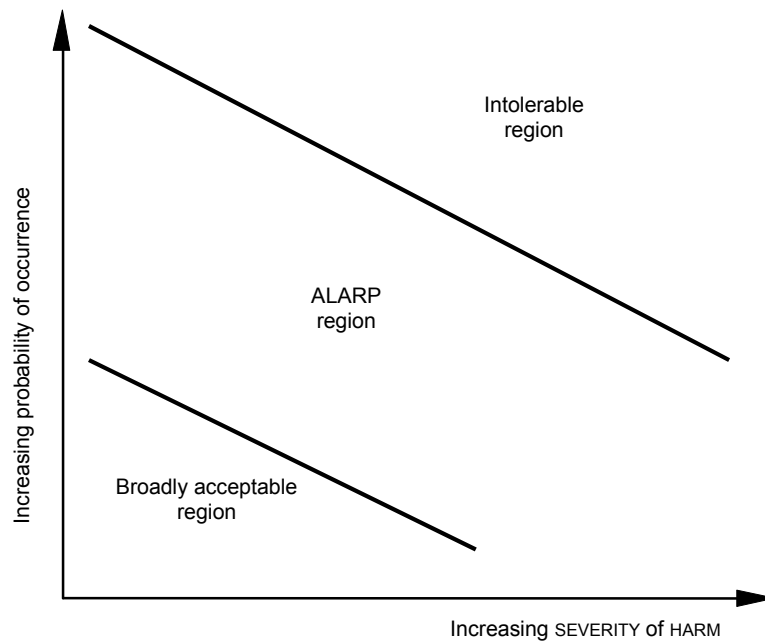


Figure AA.1 – Risk acceptability

Annex ZA
(normative)**Normative references to international publications
with their corresponding European publications***Addition to annex ZA of EN 61010-1:*

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60068-2-75	1997	Environmental testing – Part 2-75: Tests – Test Eh: Hammer tests	EN 60068-2-75	1997

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

Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes

1 Scope and object

This clause of part 1 is applicable except as follows:

1.1 Scope

Replacement:

This part 2 applies to automatic and semi-automatic laboratory equipment for analysis and other purposes.

Automatic and semi-automatic laboratory equipment consists of instruments or systems for measuring or modifying one or more characteristics or parameters of samples, performing the complete process or parts of the process without manual intervention. Equipment forming part of such a system is within the scope of this standard.

Examples of equipment within the scope of this standard include:

- analytical equipment;
- automatic sampler (pipettor, aliquoter);
- equipment for sample replication and amplification.

NOTE 1 In the case of analytical equipment the complete process usually includes the following steps:

- taking a specific quantity of the sample;
- preparing the sample by chemical, thermal, mechanical or other means;
- measurement;
- display, transmission or printing of the results of measurement.

NOTE 2 If all or part of the equipment falls within the scope of one or more other part 2 standards of IEC 61010 as well as within the scope of this standard, it will also need to meet the requirements of those other parts 2 standards.

1.2 Object

1.2.1 Aspects included in scope

Replacement:

Replace the first sentence by the following:

The purpose of this standard is to ensure that the design and methods of construction used provide a high degree of protection at a TOLERABLE RISK for the OPERATOR and the surrounding area, using RISK management where specified (see 7.2.101 and annex AA).

Addition:

Add two new items:

1.2.2 Aspects excluded from scope

Addition:

Add a new item and the following note:

NOTE Requirements covering these subjects are the responsibility of committees preparing the relevant standards.

2 Normative references

This clause of part 1 is applicable except as follows:

Addition:

IEC 60068-2-75:1997, *Environmental testing – Part 2-75: Test – Test Eh: Hammer tests*

[REDACTED]

11/11/2016

[REDACTED]
