



NSAI
Standards

Irish Standard
I.S. EN 61010-2-051:2015

Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-051: Particular requirements for laboratory equipment for mixing and stirring

I.S. EN 61010-2-051:2015

Incorporating amendments/corrigenda/National Annexes issued since publication:

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EN 61010-2-051:2015

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EUROPEAN STANDARD

EN 61010-2-051

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2015

ICS 19.080; 71.040.20

Supersedes EN 61010-2-051:2003

English Version

**Safety requirements for electrical equipment for measurement,
control and laboratory use - Part 2-051: Particular requirements
for laboratory equipment for mixing and stirring
(IEC 61010-2-051:2015)**

Règles de sécurité pour appareils électriques de mesurage,
de régulation et de laboratoire - Partie 2-051: Exigences
particulières pour appareils de laboratoire utilisés pour
mixer et agiter
(IEC 61010-2-051:2015)

Sicherheitsbestimmungen für elektrische Mess-, Steuer-,
Regel- und Laborgeräte - Teil 2-051: Besondere
Anforderungen an Laborgeräte zum Mischen und Rühren
(IEC 61010-2-051:2015)

This European Standard was approved by CENELEC on 2015-04-14. 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 CEN-CENELEC Management Centre 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 CEN-CENELEC Management Centre has the same status as the official versions.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Avenue Marnix 17, B-1000 Brussels

Foreword

The text of document 66/552/FDIS, future edition 3 of IEC 61010-2-051, prepared by IEC/TC 66 "Safety of measuring, control and laboratory equipment" was submitted to the IEC-CENELEC parallel vote and approved by CENELEC as EN 61010-2-051:2015.

The following dates are fixed:

- latest date by which the document has to be (dop) 2016-01-14
implemented at national level by
publication of an identical national
standard or by endorsement
- latest date by which the national (dow) 2018-04-14
standards conflicting with the
document have to be withdrawn

This document supersedes EN 61010-2-051:2003.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC [and/or CEN] shall not be held responsible for identifying any or all such patent rights.

This standard covers the Principle Elements of the Safety Objectives for Electrical Equipment Designed for Use within Certain Voltage Limits (LVD - 2006/95/EC).

Endorsement notice

The text of the International Standard IEC 61010-2-051:2015 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:

The Bibliography of Part 1 is applicable, except as follows:

IEC 60079 (series)	NOTE	Harmonized as EN 60079 (series).
IEC 61010-2-010	NOTE	Harmonized as EN 61010-2-010.

Annex ZA (normative)

Normative references to international publications with their corresponding European publications

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

NOTE 1 When an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: www.cenelec.eu.

Annex ZA of Part 1 applies.

Addition

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62061	-	Safety of machinery - Functional safety of safety-related electrical, electronic and programmable electronic control systems	EN 62061	-
-	-		+corrigendum Feb.	-
ISO 13849	series	Safety of machinery - Safety-related parts of control systems	EN ISO 13849	series

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IEC 61010-2-051

Edition 3.0 2015-03

INTERNATIONAL STANDARD

NORME INTERNATIONALE

GROUP SAFETY PUBLICATION
PUBLICATION GROUPEE DE SÉCURITÉ

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

Part 2-051: Particular requirements for laboratory equipment for mixing and stirring

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

Partie 2-051: Exigences particulières pour appareils de laboratoire utilisés pour mixer et agiter



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IEC 61010-2-051

Edition 3.0 2015-03

INTERNATIONAL STANDARD

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GROUP SAFETY PUBLICATION
PUBLICATION GROUPEE DE SÉCURITÉ

**Safety requirements for electrical equipment for measurement, control, and laboratory use –
Part 2-051: Particular requirements for laboratory equipment for mixing and stirring**

**Règles de sécurité pour appareils électriques de mesurage, de régulation et de laboratoire –
Partie 2-051: Exigences particulières pour appareils de laboratoire utilisés pour mixer et agiter**

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INTERNATIONAL ELECTROTECHNICAL COMMISSION

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

Part 2-051: Particular requirements for laboratory equipment for mixing and stirring

FOREWORD

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International Standard IEC 61010-2-051 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.

This third edition cancels and replaces the second edition published in 2003. It constitutes a technical revision and includes the following change from the second edition:

- exclusion of equipment, whose size and weight make unintentional movement unlikely, from the drop test in Clause 8,
- added requirement for interlock systems containing electric/electronic or programmable components to Clause 15,
- notes have been re-phrased according to ISO/IEC Directives.

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

FDIS	Report on voting
66/552/FDIS	66/567/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.

A list of all parts of the IEC 61010 series, under the general title: *Safety requirements for electrical equipment for measurement, control, and laboratory use*, may be found on the IEC website.

This Part 2-051 is intended to be used in conjunction with IEC 61010-1. It was established on the basis of the third edition (2010). This Part 2-051 supplements or modifies the corresponding clauses in IEC 61010-1 so as to convert that publication into the IEC standard: *Safety requirements for laboratory equipment for mixing and stirring*.

Where a particular subclause of Part 1 is not mentioned in this part 2, that subclause applies as far as is reasonable. Where the part states “addition”, “modification”, “replacement” or “deletion”, 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 test: in italic type*;
 - terms used throughout this standard which have been defined in clause 3: SMALL ROMAN CAPITALS;
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- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

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

Part 2-051: Particular requirements for laboratory equipment for mixing and stirring

1 Scope and object

This clause of Part 1 is applicable except as follows:

1.1 Scope

Replacement:

Replace the text in 1,1 by the following paragraph:

This part of IEC 61010 is applicable to electrically operated laboratory equipment and its accessories for mechanical mixing and stirring, where mechanical energy influences the shape or size or homogeneity of materials and their accessories. Such devices may contain heating elements.

NOTE 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, consideration is to be given to those other Part 2 standards. The standard for equipment which contain heating devices is IEC 61010-2-010.

2 Normative references

This clause of Part 1 is applicable except as follows:

Addition:

Add the following references to the list:

IEC 62061, *Safety of machinery – Functional safety of safety-related electrical, electronic and programmable electronic control systems*

ISO 13849, *Safety of machinery – Safety-related parts of control systems*

3 Terms and definitions

This clause of Part 1 is applicable.

4 Tests

This clause of Part 1 is applicable.

5 Marking and documentation

This clause of Part 1 is applicable except as follows:

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