



UL 61010-2-201

STANDARD FOR SAFETY

Safety Requirements for Electrical
Equipment for Measurement, Control,
and Laboratory Use – Part 2-201:
Particular Requirements for Control
Equipment

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UL Standard for Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use – Part 2-201: Particular Requirements for Control Equipment, UL 61010-2-201

Second Edition, Dated May 14, 2018

Summary of Topics

This revision of ANSI/UL 61010-2-201 dated August 8, 2022 is being issued to update the title page to reflect the most recent designation as a Reaffirmed American National Standard (ANS). No technical changes have been made.

ANSI/UL 61010-2-201 is an Adoption of IEC 61010-2-201:2017, Second edition issued by the IEC March 2017. Please note that the National Difference document incorporates all of the U.S. national differences for UL 61010-2-201.

Text that has been changed in any manner or impacted by UL's electronic publishing system is marked with a vertical line in the margin.

The requirements are substantially in accordance with Proposal(s) on this subject dated June 10, 2022.

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ANSI/UL 61010-2-201-2018 (R2022)

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UL 61010-2-201

**Standard for Safety Requirements for Electrical Equipment for
Measurement, Control, and Laboratory Use – Part 2-201: Particular
Requirements for Control Equipment**

First Edition – January, 2014

Second Edition

May 14, 2018

This ANSI/UL Standard for Safety consists of the Second Edition including revisions through August 8, 2022.

The most recent designation of ANSI/UL 61010-2-201 as a Reaffirmed American National Standard (ANS) occurred on August 8, 2022. ANSI approval for a standard does not include the Cover Page, Transmittal Pages, Title Page, or Preface. The National Difference Page and IEC Foreword are also excluded from the ANSI approval of IEC-based standards.

Comments or proposals for revisions on any part of the Standard may be submitted to UL at any time. Proposals should be submitted via a Proposal Request in UL's On-Line Collaborative Standards Development System (CSDS) at <https://csds.ul.com>.

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CONTENTS

PREFACE	7
NATIONAL DIFFERENCES	9
FOREWORD	11
INTRODUCTION.....	15
1 Scope and object	17
1.1.1 Equipment included in scope	17
1.1.2 Equipment excluded from scope	18
1.2.1 Aspects included in scope	18
1.2.2 Aspects excluded from scope	19
2 Normative references	19
3 Terms and definitions.....	20
4 Tests	22
4.1 General	22
4.4.2 Application of fault conditions.....	23
5 Marking and documentation	24
5.1.5.2 TERMINALS	24
5.1.8 FIELD WIRING TERMINAL boxes	24
5.3DV Modification of Clause 5.3 of the Part 1 by replacing the text with the following:.....	24
5.4.1 General.....	25
5.4.3 Equipment installation	25
5.4.4 Equipment operation.....	25
6 Protection against electric shock	25
6.1.2 Exceptions	25
6.2.1 General.....	26
6.2.2 Examination	26
6.2.3 Openings above parts that are HAZARDOUS LIVE	26
6.2.4 Openings for pre-set controls.....	26
6.2.101 Accessibility of TERMINALS and ports	27
6.2.102 Control equipment.....	28
6.5.2.1 General.....	29
6.5.2.6 Transformer PROTECTIVE BONDING screen.....	29
6.5.2.101 Classes of equipment or equipment classes	29
6.5.2.102 Protective earth requirements for ENCLOSED EQUIPMENT.....	31
6.5.2.103 Protective earth requirements for OPEN EQUIPMENT	31
6.6.1 General.....	31
6.6.2 TERMINALS for EXTERNAL CIRCUITS.....	32
6.6.3 Circuits with TERMINALS which are HAZARDOUS LIVE.....	32
6.7.1.1 General	32
6.7.1.2 CLEARANCES.....	34
6.7.1.5 Requirements for insulation according to type of circuit	34
6.7.1.101 Non-metallic material supporting HAZARDOUS LIVE parts	35
6.7.2 Insulation for MAINS CIRCUITS of OVERVOLTAGE CATEGORY II with a nominal supply voltage up to 300 V	35
6.7.3.1 General	36
6.7.3.2 CLEARANCES.....	37
6.7.3.3 CREEPAGE DISTANCES	38
6.7.101 Insulation for FIELD WIRING TERMINALS of OVERVOLTAGE CATEGORY II with a nominal voltage up to 1 000 V.....	38
6.10 Connection to the MAINS supply source and connections between parts of equipment ...	38

6.11	Disconnection from supply source	38
7	Protection against mechanical HAZARDS	39
7.1.101	OPEN and PANEL MOUNTED EQUIPMENT	39
7.2	Sharp edges	39
7.3.3	RISK assessment for mechanical HAZARDS to body parts	39
7.3.4	Limitation of force and pressure	40
7.3.5	Gap limitations between moving parts	40
7.7	Expelled parts	40
8	Resistance to mechanical stresses	40
8.1	General	40
8.2.2	Impact test	40
8.3	Drop test	41
9	Protection against the spread of fire	41
9.2	Eliminating or reducing the sources of ignition within the equipment	41
9.3.2	Constructional requirements	41
10	Equipment temperature limits and resistance to heat	42
10.1	Surface temperature limits for protection against burns	43
10.3	Other temperature measurements	43
10.4.1	General	43
10.4.2	Temperature measurement of heating equipment	49
10.5.2	Non-metallic ENCLOSURES	49
11	Protection against HAZARDS from fluids	49
11.6	Specially protected equipment	49
12	Protection against radiation, including laser sources, and against sonic and ultrasonic pressure	49
13	Protection against liberated gases and substances, explosion and implosion	49
13.1	Poisonous and injurious gases and substances	50
13.2.1	Components	50
13.2.2	Batteries and battery charging	50
14	Components and subassemblies	50
14.101	Components bridging insulation	50
14.102	Switching devices	51
15	Protection by interlocks	51
16	HAZARDS resulting from application	51
17	RISK assessment	51

Annexes

Annex E (informative) Guideline for reduction of POLLUTION DEGREES

Annex F (normative) ROUTINE TESTS

F.2	Protective earth	55
F.3.1	General	55
F.4	Floating circuits	55
F.101	Supply circuits other than MAINS and floating circuits	55

Annex L (informative) Index of defined terms

Annex AA (informative) General approach to safety for control equipment

AA.1	Personnel	58
------	-----------------	----

AA.1.1	General	58
AA.1.2	OPERATOR	58
AA.1.3	SERVICE PERSONNEL	58
AA.2	Operating access areas.....	59
AA.3	Service access areas	59
AA.4	Equipment types.....	59
AA.4.1	General	59
AA.4.2	OPEN EQUIPMENT	59
AA.4.3	ENCLOSED EQUIPMENT	60

Annex BB (informative) System drawing of isolation boundaries

BB.1	General.....	61
BB.2	Installation environment of OPEN control equipment	61
BB.3	Control equipment electrical safety drawing	63
BB.4	Applying the standard to the control equipment electrical safety drawing.....	66
BB.5	Conclusion	74

Annex CC (informative) Historical techniques for secondary circuits

CC.1	Secondary circuits background.....	75
CC.2	Secondary circuits without RISK of electrical shock	75
CC.2.1	General.....	75
CC.2.2	Secondary circuits which do not pose a RISK of electrical shock	75
CC.3	Secondary circuits without RISK of spread of fire	76
CC.3.1	General.....	76
CC.3.2	Secondary circuits which do not pose a RISK of spread of fire.....	77

Annex DD (normative) Flammability test for magnesium alloy fire ENCLOSURES or flame barriers (see [9.3.2](#))

DD.1	General	79
DD.2	Samples	79
DD.3	Mounting of samples	79
DD.4	Test flame	79
DD.5	Test procedure.....	79

Annex EE (informative) Information/documentation and correlation to its uses

Annex FF (informative) Measurement of CLEARANCES and CREEPAGE DISTANCES

Annex 101.DVA (informative) Description of major changes from the First edition to the Second edition of IEC 61010-2-201

Annex 101.DVA	Addition of Annex 101.DVA as follows:	86
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Bibliography

No Text on This Page

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PREFACE

This UL Standard is based on IEC Publication 61010-2-201: Second edition Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use – Part 2-201: Particular Requirements for Control Equipment. IEC publication 61010-2-201 is copyrighted by the IEC.

This UL Standard 61010-2-201 Standard for Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use – Part 2-201: Particular Requirements for Control Equipment, is to be used in conjunction with the third edition of UL 61010-1. The requirements for control equipment are contained in this Part 2 Standard and UL 61010-1.

Requirements of this Part 2 Standard, where stated, amend the requirements of UL 61010-1.

Where a particular subclause of UL 61010-1 is not mentioned in UL 61010-2-201, the UL 61010-1 subclause applies.

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Note – Although the intended primary application of this Standard is stated in its Scope, it is important to note that it remains the responsibility of the users of the Standard to judge its suitability for their particular purpose.

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NATIONAL DIFFERENCES

National Differences from the text of International Electrotechnical Commission (IEC) Publication 61010-2-201, Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use – Part 2-201: Particular Requirements for Control Equipment copyright March 2017 are indicated by notations (differences) and are presented in bold text. The national difference type is included in the body.

There are five types of National Differences as noted below. The difference type is noted on the first line of the National Difference in the standard. The standard may not include all types of these National Differences.

DR – These are National Differences based on the **national regulatory requirements**.

D1 – These are National Differences which are based on **basic safety principles and requirements**, elimination of which would compromise safety for consumers and users of products.

D2 – These are National Differences from IEC requirements based on existing **safety practices**. These requirements reflect national safety practices, where empirical substantiation (for the IEC or national requirement) is not available or the text has not been included in the IEC standard.

DC – These are National Differences based on the **component standards** and will not be deleted until a particular component standard is harmonized with the IEC component standard.

DE – These are National Differences based on **editorial comments or corrections**.

Each national difference contains a description of what the national difference entails. Typically one of the following words is used to explain how the text of the national difference is to be applied to the base IEC text:

Addition / Add - An addition entails adding a complete new numbered clause, subclause, table, figure, or annex. Addition is not meant to include adding select words to the base IEC text.

Modification / Modify - A modification is an altering of the existing base IEC text such as the addition, replacement or deletion of certain words or the replacement of an entire clause, subclause, table, figure, or annex of the base IEC text.

Deletion / Delete - A deletion entails complete deletion of an entire numbered clause, subclause, table, figure, or annex without any replacement text.

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FOREWORD

INTERNATIONAL ELECTROTECHNICAL COMMISSION

SAFETY REQUIREMENTS FOR ELECTRICAL EQUIPMENT FOR MEASUREMENT, CONTROL, AND LABORATORY USE – Part 2-201: Particular requirements for control equipment

1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of 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, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). 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. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.

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International Standard IEC 61010-2-201 has been prepared by IEC technical committee 65: Industrial-process measurement, control and automation.

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

FDIS	Report on voting
65/652/FDIS	65/657/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 second edition cancels and replaces the first edition published in 2013. This edition constitutes a technical revision.

This second edition includes the following significant technical changes with respect to the previous edition;

- a) clarify, change, delete definitions which were causing confusion,
- b) change and clarify the temperature testing methodology,
- c) change documentation methodologies allowed,
- d) change some TERMINAL markings,
- e) add clarity to some of the informative annexes,
- f) add Annex [E](#) with changes,
- g) add Annexes [AA](#) – [FF](#).

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

This Part 2-201 is intended to be used in conjunction with IEC 61010-1. It was established on the basis of the third edition (2010) of that standard. Consideration may be given to future editions of, or amendments to, IEC 61010-1.

This Part 2-201 supplements or modifies the corresponding clauses in IEC 61010-1 so as to convert that publication into the IEC standard: *Particular requirements for control equipment*.

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”, “replacement”, or “deletion”, the relevant requirement, test specification or NOTE in Part 1 should be adapted accordingly.

In this standard, the following print types are used:

- requirements and definitions: in roman type;
- NOTES: in smaller roman type;
- *conformity and tests*: in italic type;
- terms used throughout this standard which have been defined in Clause [3](#): SMALL ROMAN CAPITALS.

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

The committee has decided that the contents of this publication will remain unchanged until the stability date indicated on the IEC website under "http://webstore.iec.ch" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or

- amended.

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