



BSI Standards Publication

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

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Part 031: Safety requirements for hand-held and hand-manipulated  
probe assemblies for electrical test and measurement

This is a preview of "BS EN IEC 61010-031:...". Click here to purchase the full version from the ANSI store.

## National foreword

This British Standard is the UK implementation of EN IEC 61010-031:2023. It is identical to IEC 61010-031:2022. It supersedes BS EN 61010-031:2015+A1:2021, which is withdrawn.

The UK participation in its preparation was entrusted to Technical Committee EPL/66, Safety of measuring, control and laboratory equipment.

A list of organizations represented on this committee can be obtained on request to its committee manager.

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This publication has been prepared under a mandate given to the European Standards Organizations by the European Commission and the European Free Trade Association. It is intended to support requirements of the EU legislation detailed in the European Foreword. A European Annex, usually Annex ZA or ZZ, describes how this publication relates to that EU legislation.

For the Great Britain market (England, Scotland and Wales), if UK Government has designated this publication for conformity with UKCA marking (or similar) legislation, it may contain an additional National Annex. Where such a National Annex exists, it shows the correlation between this publication and the relevant UK legislation. If there is no National Annex of this kind, the relevant Annex ZA or ZZ in the body of the European text will indicate the relationship to UK regulation applicable in Great Britain. References to EU legislation may need to be read in accordance with the UK designation and the applicable UK law. Further information on designated standards can be found at [www.bsigroup.com/standardsandregulation](http://www.bsigroup.com/standardsandregulation).

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UK Government is responsible for legislation. For information on legislation and policies relating to that legislation, consult the relevant pages of [<http://www.gov.uk%3c/ext-link%3e.%3c/pwww.gov.uk>].

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**Compliance with a British Standard cannot confer immunity from legal obligations.**

This British Standard was published under the authority of the Standards Policy and Strategy Committee on 30 June 2023.

**Amendments/corrigenda issued since publication**

Date

Text affected

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## EUROPÄISCHE NORM

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Supersedes EN 61010-031:2015; EN 61010-031:2015/A1:2021; EN 61010-031:2015/A11:2021

English Version

Safety requirements for electrical equipment for measurement, control, and laboratory use - Part 031: Safety requirements for hand-held and hand-manipulated probe assemblies for electrical test and measurement  
(IEC 61010-031:2022)

Exigences de sécurité pour appareils électriques de mesurage, de régulation et de laboratoire - Partie 031: Exigences de sécurité pour sondes équipées tenues à la main et manipulées pour mesurage et essais électriques  
(IEC 61010-031:2022)

Sicherheitsbestimmungen für elektrische Mess-, Steuer-, Regel- und Laborgeräte - Teil 031: Sicherheitsbestimmungen für handgehaltenes und handgeführtes Messzubehör zum elektrischen Messen und Prüfen  
(IEC 61010-031:2022)

This European Standard was approved by CENELEC on 2023-03-06. 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.

CENELEC members are the national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.



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

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## European foreword

The text of document 66/770/FDIS, future edition 3 of IEC 61010-031:2022, prepared by IEC/TC 66 "Safety of measuring control and laboratory equipment" was submitted to the IEC-CENELEC parallel vote and approved by CEN-CENELEC as EN IEC 61010-031:2023.

The following dates are fixed:

- latest date by which this document has to be (dop) 2023-12-06  
implemented at national level by publication of an  
identical national standard or by endorsement
- latest date by which the national standards conflicting (dow) 2026-03-06  
with this document have to be withdrawn

This document supersedes EN 61010-031:2015 and all of its amendments and corrigenda (if any).

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

This document has been prepared under a Standardization Request given to CEN-CENELEC by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For relationship with EU Directive(s) / Regulation(s), see informative Annex ZZ, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN and CENELEC websites.

## Endorsement notice

The text of the International Standard IEC 61010-031:2022 was approved by CEN-CENELEC as a European Standard without any modification.

In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC 60364-4-44:2007	NOTE	Approved as HD 60364-4-442:2012 (modified)
IEC 60664-1:2020	NOTE	Approved as EN IEC 60664-1:2020 (not modified)
IEC 60664-4:2005	NOTE	Approved as EN 60664-4:2006 (not modified)
IEC 60990:2016	NOTE	Approved as EN 60990:2016 (not modified)
IEC 61010-2-030	NOTE	Approved as EN IEC 61010-2-030
IEC 61010-2-032:2019	NOTE	Approved as EN IEC 61010-2-032:2021 (not modified) + A11:2021
IEC 61010-2-033	NOTE	Approved as EN IEC 61010-2-033
IEC 61010-2-034	NOTE	Approved as EN IEC 61010-2-034
IEC 61032:1997	NOTE	Approved as EN 61032:1998 (not modified)
IEC 61557-17	NOTE	Approved as EN IEC 61557-17

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(normative)

## Normative references to international publications with their corresponding European publications

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. 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.cencenelec.eu](http://www.cencenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 60027-1 + AMD1 + AMD2	1992 1997 2005	Letters symbols to be used in electrical technology - Part 1: General	EN 60027-1 + A2	2006 2007
IEC 60027-2	2019	Letter symbols to be used in electrical technology - Part 2: Telecommunications and electronics	EN IEC 60027-2	2019
IEC 60027-4	2006	Letter symbols to be used in electrical technology - Part 4: Rotating electric machines	EN 60027-4	2007
IEC 60529 + AMD1 + AMD2	1989 1999 2013	Degrees of protection provided by enclosures (IP Code)	EN 60529 + Corrigendum + A1 + A2 + A2:2013/AC + AC	1991 May 1993 2000 2013 2019-02 2016-12
IEC 61010-1 + AMD1	2010 2016	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 1: General requirements	EN 61010-1 + A1 + A1:2019/AC	2010 2019 2019-04
IEC 61180	2016	High-voltage test techniques for low-voltage equipment - Definitions, test and procedure requirements, test equipment	EN 61180	2016

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(informative)

## Relationship between this European standard and the safety objectives of Directive 2014/35/EU [2014 OJ L96] aimed to be covered

This European Standard has been prepared under a Commission's standardization request relating to harmonized standards in the field of the Low Voltage Directive, M/511, to provide one voluntary means of conforming to safety objectives of Directive 2014/35/EU of the European Parliament and of the Council of 26 February 2014 on the harmonization of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits [2014 OJ L96].

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZZ.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding safety objectives of that Directive, and associated EFTA regulations.

**Table ZZ.1 — Correspondence between this European standard and Annex I of Directive 2014/35/EU [2014 OJ L96]**

Safety objectives of Directive 2014/35/EU (Annex I)	Clause(s) / subclause(s) of this EN	Remarks / Notes
<b>1. General conditions</b>		
1 (a) the essential characteristics, the recognition and observance of which will ensure that electrical equipment will be used safely and in applications for which it was made, shall be marked on the electrical equipment, or, if this is not possible, on an accompanying document	6	This standard only deals with accessories for measuring equipment.
1 (b) the electrical equipment, together with its component parts, shall be made in such a way as to ensure that it can be safely and properly assembled and connected	6.4	
1 (c) the electrical equipment shall be so designed and manufactured as to ensure that protection against the hazards set out in points 2 and 3 is ensured, providing that the equipment is used in applications for which it was made and is adequately maintained	6.4, Annex F See also the details in points 2 and 3	
<b>2. Protection against hazards arising from the electrical equipment</b>		
Measures of a technical nature shall be laid down in accordance with point 1, in order to ensure that:		
2 (a) persons and domestic animals are adequately protected against the danger of physical injury or other harm which might be caused by direct or indirect contact	5, 7, 9.1, 9.2, 11, Annex A, Annex D	



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<b>Safety objectives of Directive 2014/35/EU (Annex I)</b>	<b>subclause(s) of this EN</b>	<b>Remarks / Notes</b>
2 (b) temperatures, arcs or radiation which would cause a danger, are not produced	5, 5.5.2, 7.3.1, 7.3.2, 9.2, 10, 12, 13	The products dealt with in this standard are all passive accessories.
2 (c) persons, domestic animals and property are adequately protected against non-electrical dangers caused by the electrical equipment which are revealed by experience	8, 11.2	The products dealt with in this standard are all passive accessories.
2 (d) the insulation is suitable for foreseeable conditions	5, 7.7, 9 Annex D	
<b>3. Protection against hazards which may be caused by external influences on the electrical equipment</b> Technical measures shall be laid down in accordance with point 1, in order to ensure that the electrical equipment:		
3 (a) meets the expected mechanical requirements in such a way that persons, domestic animals and property are not endangered	5, 8, 9.1, 11.2	
3 (b) is resistant to non-mechanical influences in expected environmental conditions, in such a way that persons, domestic animals and property are not endangered	5, 7.5, 9.2, 10	
3 (c) does not endanger persons, domestic animals and property in foreseeable conditions of overload	5, 9.1, 10, 12, 13	

**WARNING 1** — Presumption of conformity stays valid only as long as a reference to this European standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

**WARNING 2** — Other Union legislation may be applicable to the product(s) falling within the scope of this standard.

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